

DEW LINE PASSAGE:  
TRACING THE LEGACIES OF ARCTIC MILITARIZATION

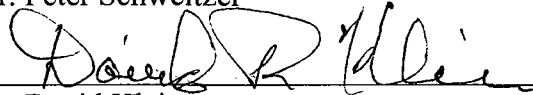
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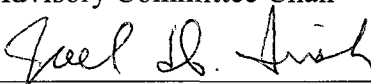
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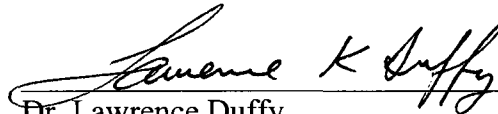


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DEW LINE PASSAGE:  
TRACING THE LEGACIES OF ARCTIC MILITARIZATION  
A  
THESIS

Presented to the Faculty  
of the University of Alaska Fairbanks

in Partial Fulfillment of the Requirements  
for the Degree of

DOCTOR OF PHILOSOPHY

By

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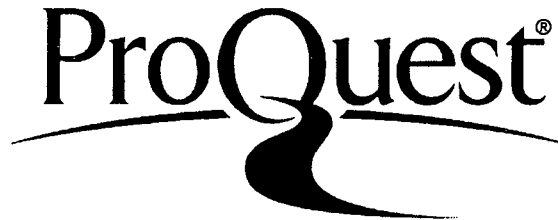
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### **Abstract**

Grounded within the context of modern American militarization, this dissertation is a descriptive, ethnohistorical, and ethnographic study focusing on the impacts and legacies of the development, implementation, and decommissioning of the western sector of the Distant Early Warning radar line (DEW Line) in northern Alaska and Canada's western Arctic. Understanding the localized social and environmental impacts of global militarization is a critical task for anthropology and one that coincides in the North with the need to gather histories from Inuit perspectives. This study's purposes are to elucidate how the global phenomenon of modern militarization penetrates and brings about change in small communities and to determine whether local attitudes towards security, the environment, industrialization, and political participation can be traced to the policies of the Canadian and American governments during the construction, operation, and clean up of the line. Ethnohistorical research and pilot studies in communities adjacent to radar sites provided background for the project. Personal narratives of arctic residents and employees, combined with documentation of the radar stations and remnants, were collected during a multi-season voyage along the western sector of the DEW line in the Canada's western Arctic and Alaska.

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### **Abbreviations and Terms**

**DEW Line:** Distant Early Warning Line: a series of aircraft early warning radar stations constructed in the Arctic in the 1950s.

**Cat Skinner:** A man who operates a bulldozer. In the context of arctic militarization, cat skimmers played a significant role in the exploration of PET 4 (working for contractor Puget Sound and Drake out of Barrow) and in constructing the DEW Line. Many of them were also considered ‘sourdoughs’ (in Alaska) or ‘arctic hands’ (in Canada).

**PET 4:** The Naval Petroleum Reserve Number 4, widely known as PET 4. In 1976, the Naval Petroleum Reserves Production Act renamed the reserve the “National Petroleum Reserve in Alaska” (NPR-A) and management of the land was transferred to the Department of the Interior’s Bureau of Land Management.

**Tanik:** The Iñupiat Eskimo word *tanik*, used throughout this dissertation, means anyone that is not an Iñupiat. *Tanik*, which is not derogatory, is usually used to refer to a Caucasian American but is not limited. In English, authors describing temporary workers or settler populations in the North employ the terms Whites, Euro- or European-Americans, African Americans, Blacks, Caucasians, etc. In Canadian DEW Line studies, imported workers are often called ‘Southerners,’ but that term has a different meaning in the U.S. In the context of the Alaskan DEW Line, some are tempted to talk about non-Alaskans who came to work on the radar sites. However, many white DEW Liners were Alaskans. Most DEW Liners were civilian, but some were military. ‘White’ is used in this dissertation when it seemed appropriate, but being able to also use the word that the Iñupiat regularly use for *all* of those people – particularly in the context of DEW Liners – is often better.

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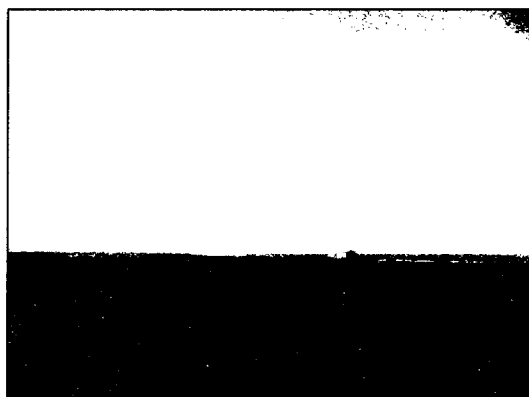
**Chapter One:**  
**The intergenerational and localized legacies of Arctic militarization**

*Tatchim Isua*



**Figure 1: New house at LIZ-C/Peard Bay**

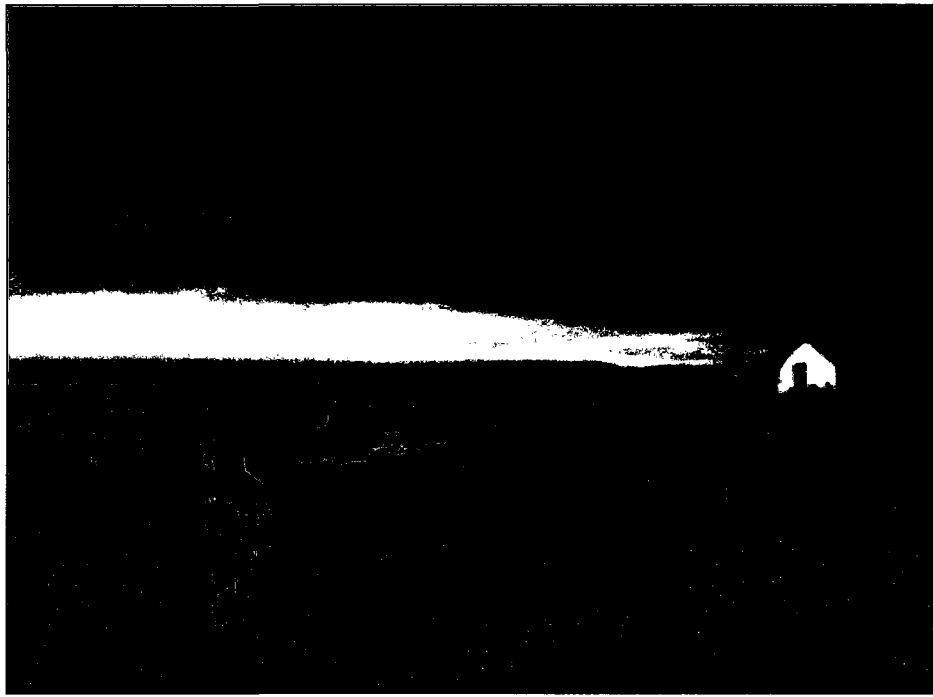
In the fall of 2009, Jimmy Olemaun and Tautuknaitchuaq scouted for caribou from the roof of their neighbor's new house at Peard Bay, Alaska (fig. 1). The house was constructed that season atop a 55-year old cement pad – a leftover foundation from a modular building at the small Intermediate DEW Line radar site known as LIZ-C that operated at that location from 1957-1963. The cement pad is large, solid, perfectly flat, and has functional industrial drains in it. The house commands a spectacular view of the lagoons and the long spits that form the eastern end of Peard Bay (fig. 2), a traditional living site and summer hunting camp known by the Barrow families that spend their summers there as *Tatchim Isua*, 'end of the bay.'



**Figure 2: View from LIZ-C Runway**



In the 1950s, Jimmy's grandfather sledded materials from the radar base to an inland fishing site and built a tiny cabin (fig. 3). Years later, Jimmy's parents would charter planes from Barrow to be dropped off at the old DEW Line airstrip so that, packing the kids, they could hike in to their cabin and set fishing nets across the river. The family still uses the inland cabin, and local search and rescue organizations have insulated it so that it can serve as a rescue shelter for lost or stranded travelers.

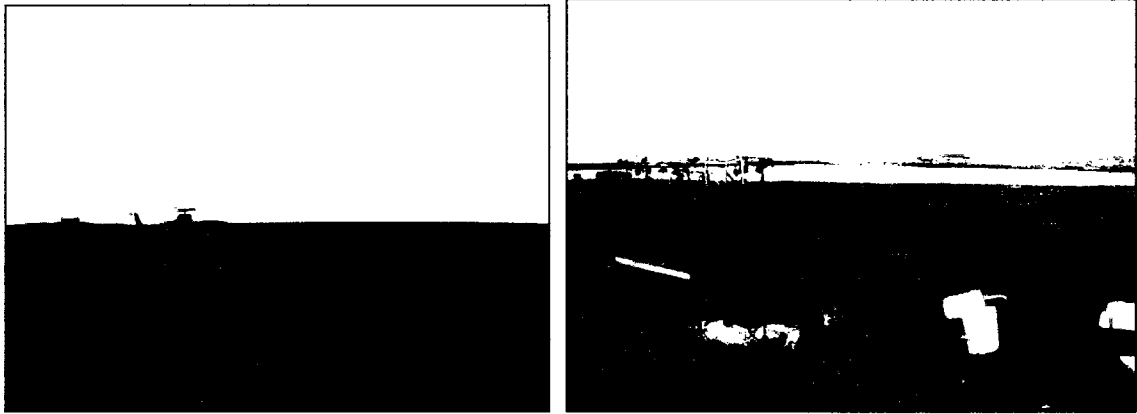


**Figure 3: The Olemaun's inland fishing cabin built out of material from LIZ-C**

It used to be easier to find one's way back from the inland cabin to the airstrip and Tatchim Isua because of the beloved 300-foot high tower that stood on top of the hill at the radar site for almost half a century. The tower provided habitat for peregrine falcons and ravens until it was toppled during a remediation project in the late 1990s.

Along the beach at Tatchim Isua, there are about ten small cabins and structures, largely constructed from the DEW Line site's waste material. Still on its original sled, one cabin that is now used by elder John Tulik of Barrow is an old DEW Line bath house. Tulik's late wife's family had long lived on the spit in semi-subterranean houses

when the beach extended another 200 feet past where it does now, and their son is the owner of the big new house on the hill.



**Figure 4: Landing pad and ice cellar at Peard Bay**

When one of Tulik's great-grandchildren was mildly ill at camp but the waves were too rough to return to Barrow by boat, a North Slope Borough Search and Rescue helicopter flew out and landed on the gravel pad that had been formed when a dump full of batteries and other industrial debris was covered during site clean up (fig 4). Slightly downhill from that dump, Tautuknaitchuaq and Jimmy have been working on an ice cellar, and the cellar regularly fills up with water that leaks in from the surrounding tundra (fig 4). On the hill above the dump is the site's fresh water lake that, despite clean up, is sprinkled with 55-gallon drums. About twice a week, Jimmy and his nephews take the four-wheeler up the gravel road to the old radar site and haul water for camp.

These are just a few of the ways that four generations (and counting) of Olemauns and Tuliks have been incorporating infrastructure from this radar site into their dwellings and lives. Similar stories are true for almost every other Iñupiaq person in Alaska, most of the Iñuit in the Canadian Arctic, and many people in Greenland. Families have grown up next to and, to varying degrees, have been shaped by these "remote" U.S. military bases.

### ***Rationale***

The effects of war are generally understood in terms of global conflicts and casualties in the thousands, yet the scale on which militarism affects life also includes the

minutiae: the myriad consequences of seemingly insignificant and remote military activities (Enloe 2004). After learning the basic history of the DEW Line during earlier research on the militarization of Alaska (Fritz 2002), this research project was born of an unrelenting curiosity about what the DEW Line was like for the people on whose homeland the radar bases were built. On a world map depicting the global span of U.S. military installations since World War II, these arctic communities could be seen among a thousand dots indicating places where remote, disenfranchised, and often indigenous peoples have been subjected to the various impacts associated with U.S. military bases.

Such maps present a very generalized overview of modern U.S. militarization. While there are characteristics and impacts that are common to many of those installations and an understanding of the global empire of bases is vital to the broader history of modern U.S. militarism, it is equally important to search for the perspective of those bases from the bottom up – the standpoint of people who, as children, looked up one day and saw enormous amphibious assault ships landing on their beaches to unload bulldozers and construction crews. This research project was designed to explore how individuals and communities were affected by the construction, presence, and clean up of the Distant Early Warning radar sites in the western Arctic. Study findings revealed that the short life cycle of a very small arctic radar base can literally and figuratively permeate and shape the land and the lives of several generations of people around it. While the sites are a largely normalized part of everyone's lives along the arctic coast, each community has its own particular history with the DEW Line and each individual has their own opinions on militarization in the Arctic.

Their stories are a critical part of a genuine history of the DEW Line – a history that, in Alaska, has received little attention and has not been represented in ways that include the perspectives of those most affected by it. My personal perspectives influenced the selection of this topic and clearly shaped this dissertation, but I do not want nor do I think it would be possible (or interesting, or productive) to relate this story in a way that neatly corroborates any theories or preconceptions I might have. The legacies of arctic militarization do not lend themselves to clean or politically useful reports because,

despite the many negative consequences of military activities, people have also gained from military employment and materials. The military, moreover, is the most trusted institution in the United States.<sup>1</sup> This trust is due in large part to the fact that the U.S. military is one of the least elitist and most diverse institutions of power in American society. Otherwise disenfranchised groups of people have access to the military (Astore 2008), and military service plays a significant role in the lives of many Native Alaskans. Accepting the complexity inherent in such situations, this project was guided by the beliefs that deconstructing the ideology of militarism is a critical task for humanity, and that making explicit how the processes of militarization are undergone by men, women, and children around the world contributes to that goal.

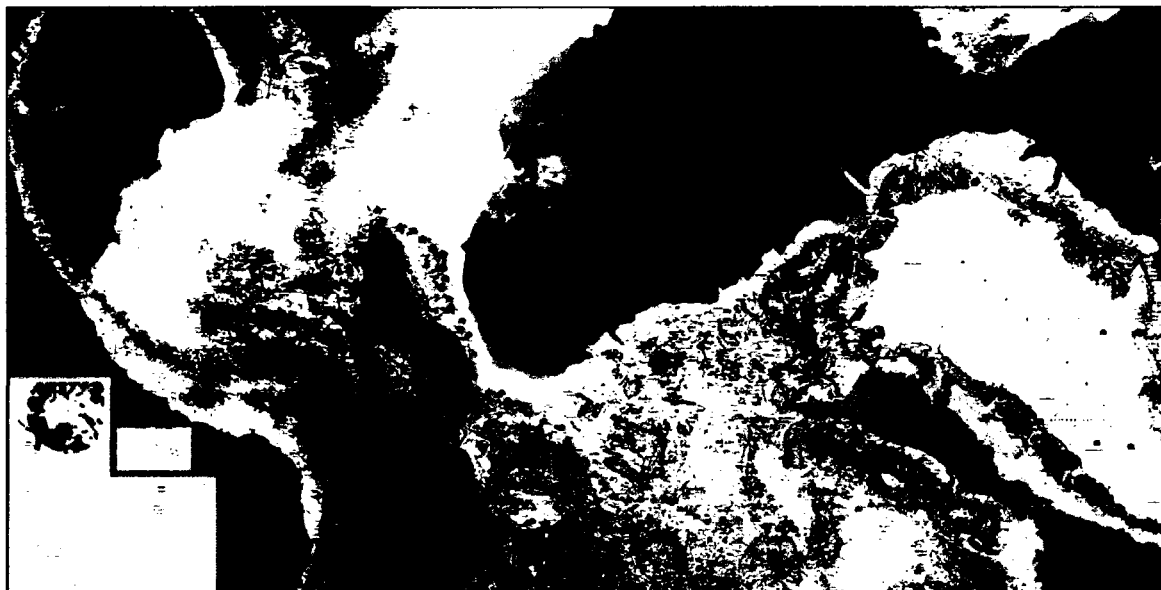
### ***Historical Context: Project 572***

In the late 1940s, the American government secretly launched 'Project 572': code name for a string of fifty-seven radar stations along the 70<sup>th</sup> parallel that would provide early warning of a Soviet bomber attack, giving the U.S. time to attempt interception and to retaliate. Within the first years of planning, Project 572 had resulted in over 40 new airfields and helicopter landing sites and a major hydrographic survey of the arctic coastline (Neufeld 2002).

Eventually stretching from the Aleutian Islands to Greenland, contractors built six Main radar stations about 500 miles apart, 23 Auxiliary stations every 100 miles, and 28 Intermediate stations every 50 miles (fig. 5). By some accounts, the DEW Line, the northernmost extension of a continental air defense system, was the largest and most ambitious peacetime military project in history. It was a key component in the new nuclear security policy colloquially known as MAD: Mutually Assured Destruction. For industry, the DEW Line was part of the new Cold War business in which corporations grew large and powerful on defense contracts. For geopolitical defense strategists, the radars transformed the remote frontier of North America into the frontline of defense for the continent.

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<sup>1</sup> The military is, according to recent polls, approximately three times as trusted as the president and five times as trusted as Congress (Astore 2008).



**Figure 5: The DEW Line sites in Alaska, Canada, and Greenland<sup>2</sup>**

Building and maintaining the DEW Line constituted a veritable transformation of the arctic landscape. In Canada, contractors with little practical experience in the unique engineering demands of arctic terrain encountered a logistics nightmare in deploying new technology in the unfamiliar environment. In Alaska, federal oil exploration in the Naval Petroleum Reserve Four (PET 4) had preceded the DEW Line and construction for the western sector was run out of Barrow by sourdough cat skimmers for Puget Sound & Drake and the Naval Arctic Research Laboratory and exploration camps.

In addition to importing thousands of southern workers and bringing other aspects of western culture to the indigenous inhabitants of the Arctic, the sites created jobs, excitement, building materials, and new infrastructure that supported further industrial development and facilitated northern science and technology. However, the military often commandeered previously occupied land for the bases, resulting in forced relocations. DEW Line planners did not simply put a site every 50 miles – their selection was made the same way Inuit living in the Arctic had chosen their campsites for hundreds of years:

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<sup>2</sup> This map used a digitized version of a 1975 American Geographical Society map of the 'Arctic Region' and is a photoshopped approximation of the DEW Line sites' locations based largely on information from Google Earth which has a DEW Line placemark kml file.

strategically. Ideally located on prominent points and spits with plenty of beach and gravel, the exact location for radar bases had to meet certain requirements, including adequate accessibility and a good fresh water source. As a result, the sites often overlapped particularly valuable and traditionally used land. The bases also deformed the landscape around the sites and created a legacy of toxic waste and contamination.

Technological advances consistently required fewer sites and fewer technicians to maintain the radar system. Moreover, the strategic advantage of the DEW Line was significantly diminished by the USSR's development of intercontinental ballistic missiles in 1957, the same year the DEW Line was completed. Due in part to the high cost of closing the stations and the continued desire to monitor air traffic over the Arctic, the sites remained active into the early 1990s when most were replaced with an upgraded and almost entirely automated system of 'North Warning' radars. Many of the more modern North Warning radars are currently being deactivated. Old or new, active or not, the sites are still widely known as the DEW Line and no local residents interviewed for this project were aware of the name change.

The materials used to build and maintain the bases were not removed and extensive landfills accompany each site. Many sites, in particular all 28 intermediate (gap filler) sites that closed in 1963, were left to decay for decades. Defense Construction Canada has characterized the DEW Line as "the biggest environmental cleanup in North America...in one of the world's most fragile ecosystems" (Barrera 2007). The radar sites have led directly to local knowledge of contaminants and subsequent efforts to enforce environmental laws in the Arctic.

By dint of their numbers, power, wealth, equipment, and technology, the DEW Liners and the radar sites became the central representatives of governmental authority for surrounding areas and their presence altered the cultural and physical reality of life for indigenous peoples. In effect, the DEW Line sites created a strong source for what French philosopher Michel Foucault termed 'governmentality,' which can be understood as the practices of government and their affects on the people who are governed. As this dissertation describes in detail in chapters 3 and 4, indigenous residents were inculcated

as never before with new notions of Canadian and U.S. citizenship when the DEW Line and steady wage employment arrived. Ideas of personal responsibility that emanated from the military bases focused on consistent dependability as an employee, and the tendency of Inuit employees to leave work to hunt was a major problem for station managers. Some government officials envisioned employment at the DEW Line and the training received for it as golden opportunities to increase self-worth, personal discipline, and an individual's usefulness. During construction, the radar project employed at least 25% of the native population in certain areas of the North, and the introduction of an indoor, wage-based employment represented significant change even for those individuals familiar with a cash-based economy (Ferguson 1957a). Combined with an increased desire for and access to western goods, the high wages transformed the living conditions of many people and partly dismantled traditional relationships within Native communities.

In addition to jobs, the sites were also sources of steady and very powerful cultural practices and perspectives. Standard fare at the DEW sites consisted of movies, alcohol, poker, and unique DEW-Line societies. Across the Arctic, the arrival of military industry meant a supply of waste materials that were used to build framed wooden houses – the first in several regions – that contributed to the physical transformations brought by the bases.

Other noteworthy social impacts of the DEW Line include the numerous airstrips that have played a considerable role in determining the survival of certain communities; relationships and marriages between local women and DEW Liners; emergency medical attention (both from doctors at sites in the past and via phone at automated sites now); and a market for native art and crafts.

This project examined both abrupt and long-term effects brought by the Cold War strategic defense industry in Inuit communities of the western Arctic. Descriptive analyses of the stories of the Inupiaq of northern Alaska and the Inuvialuit of the Mackenzie River Delta area of Canada's western Arctic regarding their histories with the

DEW Line contributes a specific example of processes by which militarism penetrates small, indigenous communities and the resulting localized forms of militarism. While gathering personal experiences, opinions, and stories about the cultural and environmental history of the western DEW Line, the project was specifically designed to elicit the sharing of knowledge on how the processes of modern militarization shape small communities and impact indigenous peoples' lives around the world. Interviews were also meant to discover whether militaristic values have influenced traditional cultural norms in the western Arctic and, if so, whether this has resulted from the local impact of the DEW Line. Another area of interest concerned whether WWII-era activity in Alaska resulted in such fear among the Inuit that they later welcomed the DEW Line and accepted the military definition of security, whether that has changed over time, and why.

Exploring these processes in particular communities and through the subjective experiences of individuals was a way to discover alternative conceptions of rationality and security. Environmental security, in particular, is a common theme among the peoples of the western Arctic, who are increasingly confronted with sensational threats to the health of the land and the ocean. Ethnography is one method of exploring the environmental legacies of the DEW Line and explicating locally perceived environmental problems caused by military industrialization.

These and other questions, based on theoretical framework provided by the burgeoning discourse on militarism, were formulated to provide information about how a society that is undergoing rapid change is influenced and shaped by the particular form of colonialism, imperialism, or industrialism it encounters. They were also designed to explore the theory that the more society has been shaped by a foreign impact, the more difficult it becomes to gain perspective on the foreign elements because those influences do not remain foreign. The once-foreign elements become natural, unquestioned, and eventually set the parameters within which people think, according to scholars of militarization and other forms of colonialism (Comaroff and Comaroff 1992).



It could be seen as problematic to interpret qualitative social data under the premise that something has occurred (i.e. militarization) even if people do not realize it. Both scholars and indigenous peoples encounter associated paradoxes in describing the impacts of militarization on societies because their social structures, institutions, and epistemologies are largely dominated by that very paradigm (Simon 1992). While not wanting to oversimplify an inherently complex issue, an interviewee of this particular research project might say that he or she does not think that the western Arctic has been militarized. According to this general militarization theory, such a statement could be evidence that the Arctic *has* been militarized – so militarized that people do not recognize it because their worldviews are already too changed. Or, it could be evidence that the Arctic has not been militarized. Since the theory is a condition (if people are militarized, they may not be able to say so), the theory would be impossible to falsify by superficial ethnographic inquiry. Although an unfalsifiable premise is not a valid theory in the strict sense, this does not mean that it is not true or useful.

This project gambled on another related assumption, which is that the degree of hindsight gained by distance from the Cold War would render the social and environmental legacies of the DEW Line and arctic militarization easier to discern and would permit people to feel more comfortable speaking about these issues. Elsewhere, scholars have found that indigenous communities are expressing independent identities, self-determinism, and security priorities that were subsumed or invisible under the “Cold War dialectics of the nuclear age” (Masco 1999: 204). The evidence compiled during this research has convinced this researcher that this is the case in the western Arctic: I had no difficulty finding people who spoke openly (and often disparagingly) about the military. My belief is that naturally outspoken and opinionated individuals increasingly feel no qualms about speaking their minds about the government in general, while people who are shy or not particularly interested in such issues still have little to say about it today. Those people were interviewed more rarely, as there was nothing random about the selection of interviewees: it was largely

people who were genuinely interested in the subject or those who had no particular interest in it but could stand talking about it if there were benefits to doing so<sup>3</sup>.

In studying the effects of DEW Line construction in 1956, anthropologist Jack Ferguson stated, “The actual effect of DEW line employment is becoming clearer to my eyes but it is not a simple effect but a multitude of effects. And it affects the Eskimos differently in not only geographical areas but in age groups and even, possibly, in different “personality groups” (Ferguson 1956). I did not anticipate finding consensus on the DEW Line or national security priorities in general among arctic residents. Almost no one has completely positive or negative views on these subjects because they are inherently complex with widely varying positive and negative impacts. It is precisely in this countering of advantages and disadvantages that underlying and changing assumptions and values may be articulated. I likewise hypothesized that most differences in opinion about arctic military activities among arctic residents would be due to individual outlooks and experience, but considered that generational and gender differences could play a significant role. Moreover, I anticipated that there would be observable and enlightening differences in general opinion depending on the resident country, and that Canadian arctic residents would have distinctly divergent opinions from the American residents on both the legacies of the DEW Line and on the advantages and disadvantages of militarization. Although the evidence gathered did support both of these theories, a more extensive survey would be required to firmly substantiate it. More useful than such statistics are the stories illustrated by a plurality of voices that demonstrate the various experiences people had and a description of the spectrum of attitudes and opinions.

My approach was inspired by another central theory of militarization, which is that simply tracking the historic course of military projects leaves an incomplete picture. Militarization is not found only in simple and obvious places, but can transform the meanings and uses of people, things, and ideas distant from the military. By uncovering, documenting, and examining the multilayered processes by which

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<sup>3</sup> For formal recorded interviews, informants were compensated \$50.

militarism gains legitimacy and popular acceptance or creates opposition on an individual and local level, one reaches a more realistic understanding of how militarization works, how ethnicity becomes converted to accommodate a nationalist consciousness, and how foreign values and assumptions become natural and unquestioned (Enloe 2004).

Anthropological inquiry into remote military bases and the use of ethnographic methods to gather information on ecological degradation at overseas and remote bases is an important potential for this field of research. Often, the military itself does not have records of environmental issues, is unwilling to completely disclose the information they have, and releases environmental data in formats that are difficult to decipher and make relevant to specific places. Military clean up programs are required by CERCLA (the Comprehensive Environmental Response, Compensation, and Liability ACT, commonly known as Superfund) stipulations to rely on local knowledge. Air Force engineers (civilian contractors) in Kaktovik have had locals indicate to them the locations of many Barter Island DEW Line outbuildings and other sites where contamination is a problem. Nevertheless, few people feel that the clean up projects have respected their input or been adequate. The ongoing clean up of the DEW Line clean up in recent years is, especially for younger people, as significant a chapter in this history as the construction and operation of the radar bases were for previous generations.

In addition to analyzing the variation in arctic residents' experience of and attitudes toward the DEW Line and the militarization of their landscape, this project includes photographic documentation of the physical status of many of the sites across the western half of the radar line from Point Lay, Alaska to Shingle Point, NWT.

### ***Framing the Study of Arctic Militarization***

Anthropological explorations of militarization, ranging from theories of conflict and collective violence to studies of remote bases and American Cold War culture, provide this project's broad framework and are explored in detail in the second chapter. Although only a handful of scholars have studied the DEW Line itself and

most of that work has a Canadian focus, their excellent research has clearly been crucial to this project and their encouragement has been equally vital. These historical backgrounds and ethnographic analyses on the DEW Line were complimented by particularly rich memoirs, contractor publications, and DEW Line-inspired works of fiction. The study also drew its empirical and theoretical background from several other areas of literature, including ethnographical and historical studies of the Inuit of Alaska and western Canada, particularly those focusing on contact, modernization, and cultural resilience in the face of change. Contemporary arctic militarization issues are increasingly appearing in the media as the contentious race for resources and sovereignty heats up, and the discourse of circumpolar security and policy scholars provides a framework for interpreting the role of the DEW Line and future military activities.

**Definitions: Militarism and Militarization**

The terms militarism and militarization are sometimes used synonymously, but militarism is usually much narrower in scope. Militarism as a political doctrine presumes that society is best served or is more efficient when it is governed by concepts embodied in the military or necessitated by military demands. Militarists contend that security is the highest social priority and claim that developing and maintaining the military is the only way to ensure that security. Militarism also includes the effort to expand military cultures and ideals to areas outside the military, especially business, government policy, education, and entertainment – this is where militarism becomes militarization.

In *A History of Militarism: Civilian and Military* (originally published in 1939), Alfred Vagts outlined the distinctions between “the military way” and militarism, or “the militaristic way.” The military way specifically refers to armies concentrating men and materials to gain power efficiently and with the least bloodshed. This includes armies preparing for wars decided upon by civilians but refraining from perpetuating wars themselves. Vagts contended that the military way is “limited in scope, confined to one function, and scientific in its essential qualities” (1959: 13). Militarism, on the other hand, involves an array of customs, actions and thinking associated with war but that

transcend true military purposes – and which may *defeat* the purpose of the military way. Vagts, who also used the terms “militarization” and “militarizing” to describe the active spread of militarism, warns that militarism’s influence is “unlimited in scope. It may permeate all society and become dominant over all industry and arts...display[ing] the qualities of cast and cult, authority and belief” (1959: 13).

Chalmers Johnson (2005: 10) claims that militarism is the inseparable companion of imperialism, and that it “refers not to the defense of the country, but to the vested interests of the military as a way of life, in the expansion of the military establishment at the expense of civilian sectors of government.”

In Britain’s World War I-era feminist peace movement, women’s leader Catherine Marshall defined a militarist as “one who believes in the supremacy of force, who justifies the use of power to compel submission to the desires of its possessor, without any further sanction than his own conviction that his desires be reasonable” (Kamaster 1987: 45).

Militarism, according to Cynthia Enloe, can be a dependence on the military for a sense of pride and security. It is an ideology characterized by several distinct core values and beliefs which are embraced by a person, institution, or community and which come to define for them how the world works. According to Enloe, these core, distinctively militaristic beliefs include: a) armed force is the ultimate resolver of tensions b) human nature is prone to conflict c) having enemies is a natural condition d) hierarchical relations produce effective action and e) a state without a military is naïve, scarcely modern, and barely legitimate (Enloe 2004).

Anthropologist Catherine Lutz defines militarization as “the contradictory and tense social process in which society organizes itself for the production of war” – tense because it can create conflict between social sectors – particularly between those who benefit from militarization and those who do not, but who may also bear some of the costs (2002: 723). The process of militarization, according to Lutz, involves increasing the labor and resources dedicated to military purposes and the shaping of other institutions to be in line with military goals. Lutz also sees militarization as a discursive

process with societal beliefs and values shifting as needed to legitimate “the use of force, the organization of large standing armies and their leaders, and the higher taxes or tributes used to pay for them.” It is not just an increase in visible “militant nationalism and militant fundamentalisms” but also increasing stratification of race, class, gender, and sexuality (Lutz 2002: 723). Social institutions that seem to have little connection to war, particularly knowledge fields such as physics and psychology, are shaped by military funding and goals.

The long process of U.S. militarization and empire building over the course of the 20<sup>th</sup> century has reshaped almost every aspect of global social life. Lutz sees two questions central to the study of militarization:

- (1) What is the 20<sup>th</sup> century history of militarization, and how is it related to the notion of militarism, to the nation-state, to changing modes of warfare, and to broader social changes?
- (2) How can we connect global and national histories with specific ethnographically understood places and people involved in the militarization process? (2002: 725)

Enloe (2004) describes militarization as the multi-tracked, sociopolitical processes by which the roots of military culture and social practices are ingrained in a society, involving cultural as well as institutional, ideological, and economic transformations. She has also described it as a step-by-step process by which a person or a thing gradually comes to be controlled by the military or comes to depend for its well-being on militaristic ideas (Enloe 2000: 3).

Enloe accepts that the concept of militarization may seem vague, but notes that its diffuseness can also be a strength since analyses must consider a convergence of cultural, economic, and political processes. While many studies focus narrowly on militarization’s technological, diplomatic, or economic processes, Enloe contends that studying militarization encourages cross-cultural dialogue and permits the evaluation of ideological change. Theories of militarization are particularly relevant now since the

current historical era may be the most militarized in human history, with more people in more societies dependent on or controlled by the military and military priorities than during any other period in time (Enloe 1993).

Enloe (1993) outlines two of the central theories on militarization, one being that it is the logical consequence of capitalism and the other that it is inevitable because states by their nature are inclined to coercion. The capitalism theory is convincing: government officials enhance the status, resources, and authority of the military in order to protect the interests of private enterprise at home and overseas. This notion conflates the interests of business with the interests of the nation, and its supporters argue that it is in the boardroom, not the war room, that we should look to find the origins of war. Consequently, major business firms with overseas investments are seen at the root of military intervention and the political economy of arms manufacturing is a primary concern. In sum, this theory purports that profits drive military doctrine, not the reverse, and that a capitalistic economy creates a political life that feeds on militarization (Enloe 1993).

The second theory, that militarization is inevitable once political power is organized into a state, holds that once public power is hierarchically structured, those who control the state will use state-sanctioned force to enforce compliance. Enloe finds both of these theories powerful, plausible, and persuasive, but she faults them for focusing almost exclusively on economic relations as the most serious of all the relations sustaining militarism and for paying too little attention to the cultural politics that may be at play. Enloe believes that feminist approaches, which ask harder questions and explore other root causes of militarization, will reveal more precisely how power works and the fuel that perpetuates it.

As stated above, militarization is the process by which the roots of militarism are implanted into the foundation of a society. However, Enloe contends that there is nothing automatic or inevitable about the process and that it can be stalled, resisted at an early stage, and occasionally reversed. Although it can be difficult to avoid (even the leaders of movements opposed to military regimes often become militarized), there is nothing

inherently simple or easy about militarization. It is traceable, moreover, since militarization usually moves forward due to particular decisions made by specific people (2000). Both Enloe and Lutz point out that most militarizing processes occur during what is “misleadingly labeled ‘peacetime’” (Enloe 2004: 220).

The story of the DEW Line corroborates several of these themes. The Cold War was not “wartime” per se, but an era that included decades of military buildup and imperial expansion. The reason for the radars was security. Security was not particularly comforting when it was presented as merely knowing when the enemy was striking, but fear was also an important ingredient in the national security state. The sites expanded military culture and ideals to the communities around them via their policies, their business aspects, the entertainment they provided, and education (i.e. in how to speak English and profit from the military industrial complex). Some people benefited, while many did not but bore many of the associated social and environmental costs. It resulted in increased stratification of race, class, gender, and sexuality, and many communities developed a modern economy that was dependent on the military.

### **The Coldest War: DEW Line Literature**

This project builds on the historic and recent research on the DEW Line itself and contributes a specifically Alaskan/American-based and comparative study to the largely Canadian body of work. A critical source for all DEW Line research is the correspondence and final report (unpublished) of Canadian anthropologist Jack Ferguson who, in 1957, was sent by Canada’s Department of Northern Affairs to study the impact of DEW Line construction on the Inuit of Canada’s western Arctic from Tuktoyaktuk to Cambridge Bay and determine if the activity was subjecting natives to disruption of their hunting economy (Ferguson 1956; Ferguson 1957a; Ferguson 1957b; Ferguson 1961).

Canadian writer and filmmaker Kevin McMahon authored another key ethnographic work on the impact of the DEW Line and subsequent military installations on the Inuit of arctic Canada: *Arctic Twilight: Reflections on the Destiny of Canada’s Northern Land and People* (1988). McMahon also produced a documentary film on the



same subject, the title of which, *In the Realm of Twilight* (1994), paid even greater tribute to Diamond Jenness's *People of the Twilight* (Jenness 1928). McMahon was also significantly influenced by Ferguson's report and the work of anthropologists Hugh Brody (Brody 1975) and Jean Briggs (1970), whose findings and interpretations are discussed throughout the book. He conducted numerous interviews with Inuit in the communities of Gjoa Haven, Hall Beach, and Resolute Bay. He also interviewed government officials and military personnel and he scoured memoirs of HBC employees to find perspectives on the Inuits' reaction to the military and war.

An important perspective of McMahon's book is its timing: as modern as possible while still from the Cold War era. *Arctic Twilight* focused predominantly on the impact of the original DEW Line, but also covered the Reagan-era deployment of the North Warning System alongside the older installment. McMahon did not know that the Cold War was soon to end and described in detail the future weapons programs that analysts predicted would follow – a circular cycle of developments that the analysts knew would be obsolete, like the DEW Line, by the time of completion. In explaining its military infrastructure, McMahon described the circumpolar North from Polaris: “if you could see across the electromagnetic spectrum, the entire Arctic would appear wrapped in a dense smog of radar energy” (McMahon 1988: 164).

In interpretation and analysis, McMahon was not adhering to academic notions of objectivity. Disappointed that political scientists and other analysts have seen the issue solely in terms of physical obstacles to be overcome, McMahon asked “why develop the North at all?” He found it incredible and absurd that the weight of a forty year old undeclared and intransigent war between two feuding empires thousands of miles away should ultimately land on children in Resolute Bay, whose drunken, abusive parents had “a shit-tide of violence” begin to back up into their lives when the military arrived (ibid: 103).

Neither did McMahon make a discussion of “social pathologies” in contemporary arctic communities a central theme of his work. At the core of his writing, instead, is an exploration of Western civilization's modern scientific paradigm and, among other

characteristics, its similarity to the story of Dr. Frankenstein. Large sections of McMahan's work are devoted to a philosophical exploration of the nuclear age and questions of global survival. "Few places," he wrote of the Arctic, "do we confront a culture that has not yet completely undergone the spiritual and physical fracturing which has become the engine of our own" (1988: 185).

Canadians Matt Farish, a geographer, and Whitney Lackenbauer, a historian, have published an extensive DEW Line bibliography and resource list (Lackenbauer, et al. 2005). The two have also undertaken 'The DEW Line Project' (Lackenbauer 2010), a collaborative effort to produce a comprehensive and interdisciplinary history of the DEW Line. Farish and Lackenbauer are writing *The DEW Line: A Spatial History*, which will be a significant landmark in the history and geography of Canada, arctic studies, Cold War history, political geography, native studies, and environmental studies. These scholars are building on the support for a comprehensive DEW Line study that has been explicitly promoted by Canadian security expert Rob Huebert and by anthropologist Robert Williamson, who was conducting ethnography in the Arctic before and during DEW Line construction.

Yukon and Western Arctic Historian for Parks Canada David Neufeld and his detailed research on the DEW Line in the Inuvialuit area (Neufeld 1997a; Neufeld 1997b; Neufeld 2002) have been critical to this research project. Neufeld's generosity in steering this researcher during an internship and in sharing his copies of the Canadian government's archival documents, including Ferguson's correspondence and report, is beyond charitable. Neufeld has been in charge of an extensive Parks Canada cultural resource management program to preserve information on the two radar sites located in what is now Ivvavik National Park and is working on a history of the Line in Canada's western Arctic.

In Melanie Gagnon's documentation of Inuit recollections of the military in Iqaluit (Gagnon 2002), Gagnon noted that western documentation in general still describes the military presence in the Arctic as having negative impacts on Inuit (true of both McMahan's and Ferguson's accounts). Gagnon concluded that it is a

preoccupation with ‘keeping the natives native’ that leads people to see the construction of a military base and employment of Inuit men as a threat. Gagnon learned from the Inuit elders in Iqaluit that the Americans are remembered quite positively there. The U.S. troops helped the people significantly and were fun and upbeat, particularly compared to the stiff Canadian bureaucrats that followed. The elders interviewed saw environmental degradation as an unfortunate but unintended consequence of the military’s presence (Gagnon and elders 2002). Gagnon defined militarism as “an ethic of paternalistic nationalism, or the ideal of protecting the civilian public of a sovereign nation-state, through the application of physical and/or technological force” (Gagnon and elders 2002: 34 & 51). Compared to the definitions used by other scholars of militarization, this description suggests a decidedly kinder and gentler (perhaps more wholesome, socialist and Canadian) version of militarism. U.S. militarism, on the other hand, involves a ‘civilian public’ in that it acts to transform a civilian-oriented society to its opposite: a military-oriented society.

Indigenous arctic scholar and diplomat Mary Simon (1992) is unequivocal in her contention that militarization tends to undermine the self-determination of indigenous peoples, imposes costly and unwanted priorities and activities within their territories, and leads to loss of control over land and water. A 2008 report and annotated bibliography on the DEW Line contracted by the U.S. Air Force 611<sup>th</sup> Civil Engineer Squadron out of Elmendorf Air Force Base, Alaska, found that, for the most part, “the presence of DEW Line sites adversely affected indigenous populations” (Metcalf 2008: 9).

From Laval, Quebec, Maxime Begin’s anthropology thesis, *Des Radars and Des Hommes* (2002), explores Inuit memories of the construction and early years of the DEW Line in Hall Beach. Begin and I share similar interests: through a theoretical focus on the social construction of memory, he explored how the locals qualified the relations they had with the DEW Liners and how these Canadian Inuit interpreted the U.S.- and Russian-led Cold War. Also in Canada, Heather Ducharme’s dissertation, ‘Here We Fight the Coldest War,’ is written in the style of an opera or stageplay based

on diary entries and focused on environmental science and feminist autobiography on the DEW Line (2002). Other works that were particularly useful for this research include the archived papers of Alaskan sourdough and arctic cat skinner Bob Pittenger (2000); the memoirs of a young medical doctor who spent a year on the DEW Line in Canada's eastern Arctic (Howerd 1960); industry publications and promotional videos; and the small but compelling genre of DEW Line fictional thrillers (Griffin 1980; Holliday 1957).

### **Iñuit cultural change and adaptation**

The wealth of information on the cultures of Iñuit peoples, including their adaptations to the arctic environment, cultural resilience, and opportunistic responses in the face of modernization, has shaped this project in many ways. The works of Canadian anthropologist Diamond Jenness on the economy and administration of the Iñuit (Jenness 1948; Jenness 1962; Jenness 1968) has been an invaluable resource for information and perspective, particularly on the impacts of World War II and the Korean War on the Yupik and Iñupiat of Alaska. Charles Hughes (1965) described culture change among the Iñuit from the early 1940s to mid-1960s (including the DEW Line) and, while achieving a broad view, also emphasized regional diversity among indigenous arctic residents. The investigation by Frank Tester and Peter Kulchyski (1994) on Iñuit relocation in the eastern Arctic gives an excellent overview of the problems posed by modernization in the period 1939-1963 and of Canada's northern policies that came to a head with construction of the DEW Line. Ernest (Tiger) Burch's (1975) explorations of northwest Alaskan Iñuit kinship relations and modern periods of transition that occurred with contact, disease, and sedenterization provide a basis for his recent research into the traditional Iñupiaq system of alliance and conflict (Burch 2005). In-depth reports on particular arctic communities are equally helpful; Frederick Milan's (1962) work on Wainwright is considered a fundamental resource for subsequent social science of Iñupiaq culture and James VanStone's (1962) study of Point Hope gives insight into a northwest community that, though it had no radar site, was to be profoundly affected by the military. Oral history collections such as the

Yukon North Slope Inuvialuit narratives include elders' recollections of DEW sites in the Mackenzie River area (Nagy 1994).

The North Slope Borough and Bureau of Land Management's comprehensive reports on land use detail Native dependence and livelihood, historic values, and Native recreation (North Slope Borough Staff 1979). The volumes on the Wainwright, Barrow-Atqasuk, Point Lay, and Kaktovik areas are key contextual resources for a DEW Line history, particularly the for-the-public editions by William Schneider and Ivie on Wainwright (1988) and by David Libbey on Kaktovik (1982).

Norman Chance's work on the impact of modernization and the DEW Line in Barter Island/Kaktovik, *The Iñupiat and Arctic Alaska: An Ethnography of Development* (Chance 1967; Chance 1984; Chance 1990a) is a key historical and ethnographic resource. The book was based on Chance's own fieldwork (sporadically from 1958-1989) and the research of other anthropologists. Chance is a retired Professor of Anthropology at the University of Connecticut who remains active and keenly interested in Alaskan militarization. Throughout the book, Chance criticized colonialism, promoted the natural rights of indigenous peoples, and commented on the tendency of anthropologists to support the ideology of their era (and their government funders). Chance disparaged the ideological blinders that he felt had limited his own early ethnographic work with the people of Kaktovik.

Chance, who was initially interested in going to Kaktovik to explore the dramatic changes that had taken place after World War II, expressed some skepticism about missionaries but was openly critical of the treatment of the indigenous inhabitants by the military. He wrote that the Iñupiat in the Alaskan Arctic had become somewhat familiar with the U.S. military as a result of Lt. Col. Marvin "Muktuk" Marston's "Tundra Army" (the Alaska Territorial Guard organized during WWII), but that they were "hardly prepared" for the events that followed. Chance tried to reconcile and make a synthesis out of the two pictures of life in the Arctic he had seen: "One emphasized the intimate relationship with the land and the importance of sharing...in the other, the land and its people were simply a means to the end of winning the Cold War" (1990b: 83-84).

The impact of the military on the Iñuit has been documented in part by anthropologists John J. and Irma Honigmann in their studies of Frobisher Bay (1965) and the western Canadian Arctic (1970). Nancy Fogel Chance's work (1988) on gender and culture among Iñupiat women throughout history is another significant study that can enrich an exploration of the gendered aspects of arctic militarization. Josh Wisniewski's master's thesis on the impact of Federal Aviation Administration field stations in rural Alaska (2005) employs a framework that explores militarization via institutions that re-created the state's hegemonic themes in new settings.

***Pakaking into the DEW Line: Fieldwork<sup>4</sup>***

This project was based primarily on discussions with people who have lived near DEW Line sites and visits to the radar bases themselves. A pilot study was conducted in the village of Kaktovik (Barter Island)<sup>5</sup> in August of 2005 in order to meet people, to gauge general community response to the proposal to study the cultural and environmental impacts of the DEW Line in the western Arctic, and to discuss logistical details of traveling through the area. Logistical details were crucial because it was determined that in order to explore how modern militarization processes have shaped the land, communities and the lives of individual indigenous people in the Arctic, the fieldwork must include travel along the DEW Line itself.

To collect the evidence and achieve a broad sense of the DEW Line, the fieldwork included traveling the western section of the line (from the Mackenzie River Delta in Canada to Point Lay, Alaska) by sailing canoe over the course of two summer/fall seasons. There were several research-related and logistical reasons that boating was determined to be the best travel method for this project. To visit as many DEW Line sites and communities as possible, a boat provided the only realistic access. There are 22 sites from Shingle Point to Point Lay (fig. 6), and although it was impossible to reach a few of

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<sup>4</sup> In introducing me, a Barrow friend introduced me as "the one that pakaks into the DEW Line." *Pakak* can be translated as 'get into,' 'poke around,' or 'mess with' and is often used for things children do but should not.

<sup>5</sup> The Barter Island radar site (BAR-MAIN) was the prototype DEW Line station for the Arctic, built in 1953.

them during the trip, visiting the majority by water offered a critical perspective on their real geographical consequences. A continuous and sequential voyage along the line provided a far more holistic understanding of its geographical significance than piecemeal trips would have allowed.



**Figure 6: DEW Sites in Alaska and Canadian western Arctic<sup>6</sup>**

This approach to studying the DEW Line was far more engaging both for residents and for myself as a researcher than it would have been had I flown in, conducted interviews, and returned to Fairbanks. Residents were significantly interested in the project because we traveled through their homeland experiencing the arctic environment. This situation elicited incredible hospitality, local travel advice, the sharing of landscape knowledge, and opportunities for participating in hunting, fishing, and other activities on the land with local residents. Local residents were also engaged as guides on visits to radar sites on several occasions.

The fieldwork began in early July, 2008, in Gwich'in Athabaskan territory on the Peel River at Fort McPherson in Canada's Northwest Territory. After several days in Fort

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<sup>6</sup> This map used a digitized version of a 1975 American Geographical Society map of the 'Arctic Region' and is a photoshopped approximation of the DEW Line sites' locations based largely on information from Google Earth which has a DEW Line placemark kml file.

McPherson, we embarked on the Peel River and traveled downriver to Aklavik. After a brief sojourn there, we continued north, the Peel River having become the western channel of the Mackenzie River Delta, to Shallow Bay on the Beaufort Sea. On the far west side of the delta are both the Shingle Point DEW Line station and Shingle Point, a spit and lagoon which has long been an important location for the Inuvialuit of the Delta and is currently a summer fishing camp for many families from Aklavik and Inuvik. After a week there, we canoed west to Herschel Island and the other DEW Line sites in the western Canadian Arctic: Stokes Point and Komakuk Beach. After crossing the border into Alaska, we made it to Barter Island by late July – just one day before a memorable west-wind storm blew in, creating massive erosion of the bluff and covering half of the island’s runway with water. After nearly two weeks in Kaktovik, we continued west along the coast, visiting the remains of Collinson Point and Brownlow Point in Camden Bay and the recently closed Bullen Point DEW Auxiliary site. After Bullen, we found ourselves in the territory of major oil development for over 150 miles of coastline, which in itself provides unique insight into the modern industrialization of the western Arctic. We investigated the still-manned and operational DEW Line Auxiliary site at Oliktok, which lies within the oil industry network. Near Teshekpuk Lake, we explored the remains of the Kogru Intermediate Site before heading northwest to round Cape Halkett and arriving at Point Lonely, an Auxiliary site currently undergoing a large-scale clean up. We were thwarted in our efforts to visit the next site, Cape Simpson, by a polar bear swimming near shore, and we subsequently sailed into Barrow on the 6<sup>th</sup> of September. Fortunately, we were promptly ‘adopted’ by a prominent Barrow family (Roy and Flossie Nageak) who let us stay in their hunting cabin at Pignik (fig. 7), which is about six miles north of town. We stayed in Barrow until mid-October, participating in hunting, beach combing, family events and daily life with the Nageaks and their extended network of family and friends.





**Figure 7: The Nageak's cabin at Pignik, October, 2008.**

In spring 2009, I flew back to Kaktovik for two weeks to conduct several interviews in conjunction with Beth Mikow, an anthropology student at the University of Alaska Fairbanks whose master's degree research focuses on forced relocations in Alaska as part of the BOREAS 'Moved by the State' project. That thesis now constitutes the definitive investigation of the three moves undertaken by the Kaktovikmiut due to military activities on Barter Island (Mikow 2010).

The fieldwork trip continued in mid-August 2009, when we returned to Barrow for a week before continuing down the coast. We stayed two weeks at Peard Bay (site of the LIZ-C I-site) with Barrow families that have cabins there before continuing to the community of Wainwright. After two weeks in Wainwright, it was too late in the season to continue by canoe (the lagoon was frozen) and we traveled to Point Lay for a short visit by plane before returning to Barrow for another several weeks.

### ***Methodology***

This manner of regional exploration, known as multi-sited ethnography, is considered particularly well suited for studying aspects of globalization because it maintains a focus on local concerns while facilitating the comparison of various local responses to and affects of global social phenomena (Marcus 1999). The global

phenomenon of militarization has, like marketization or missionized religion, reached the far corners of the earth. There, while maintaining much of its fundamental nature, militarization is transformed locally according to its very specific history in that place and by the activities of members of that community. Researching the history of the DEW Line at a number of sites allowed an understanding of the commonalities and divergences of experiences in relation to military authority, political power and economic influence. This project also relied on the principal methods of traditional ethnographic fieldwork: time spent at the research sites, with people in their home environments, and numerous, in-depth, semi-structured interviews that explored both social circumstances and life trajectories. The opinions and stories of anyone whose community or personal life has been affected by the DEW Line were welcome.

Other aspects of the research plan, including public presentations about the research and a project website, were integrated with the multi-sited and sequential fieldwork. Public presentations were given in several communities, including Kaktovik (fig. 8), Barrow, Wainwright, and Point Lay. The presentations were announced and advertised through several media: personal invitations, contact with tribal council members and town officials, announcements on the local closed-circuit television channel (in Kaktovik), flyers at public locations, and VHF radio. The promotions explained the basic goals of the research project, emphasized that all were welcome, and mentioned that individual interviewees were being sought.

The presentations were both relevant to casual attendees and gave more interested community members the chance to assess the project while considering whether to participate as informants. In addition to explaining the research plan and questions, the presentation incorporated a collection of themes and pictures from the trip, i.e. from adjacent communities and relatives. Viewing local history as a part of an event that spanned the Arctic and as part of the global issue of military bases on indigenous lands elicited fresh perspectives on the DEW Line. Attendees were encouraged to critique the plan, suggest directions it should take and explain what aspect could be most useful to them. The presentations were also used to describe the interview consent process and

extend invitations to all interested in participating. The presentations were effective methods of community outreach and achieved an immediate return of knowledge. Several people mentioned that they learned a great deal from both the public discussion and the interviews.



**Figure 8: Public meeting in Kaktovik, May 2009**

In an effort to make information on the project available, a website was created that provided updates and pictures from the fieldwork trip ([www.tundradaisy.org](http://www.tundradaisy.org)). Insights into the legacies of the DEW Line, pictures of people we met, details on low-impact modes of travel in the changing environment and current observations on climate are all subjects that are of interest to people across the North and other parts of the world. The website was designed to provide perspectives on recent Arctic development that are not usually included in either military reports or industry promotions. The website was advertised on flyers, at meetings, in interviewees, and other forums and some of its pages have been collaborative efforts created with Iñupiaq participants. The website has also resulted in contacts with a number of researchers, military personnel, and other individuals who have a particular interest in this aspect of Arctic history.

Open-ended interviews guided by a detailed but flexible list of central questions (Appendix B) were the central method of gathering socioeconomic information. Although there were several yes/no questions, interviews were primarily designed to facilitate discussions, evoke stories, and to discuss the particular interviewee's knowledge and experiences. The list of questions did help disprove many of the ideas that were proposed

in the research design, and questions about other topics were added as the project progressed. The slideshow prepared for the public presentations proved just as invaluable when shared more informally during interviews at the homes of informants who had not attended a public meeting.

This project's methodological design was based on the idea that detailed ethnography of persons who are not normally the primary subjects of military histories results in a deeper and more useful understanding of the military's various impacts on indigenous peoples and their land around the globe. For example, traditional military histories and contemporary military reporting largely ignore the roles of women entirely or they portray women's roles as a human interest story, thereby underestimating the impacts of militarization on women's lives (Enloe 2000). For this project, female and male residents were equally sought out and encouraged to share their thoughts and memories. There was no special emphasis on women; they constituted about half of the informants and a few offered opinions on whether and how the presence of the DEW Line changed the roles of women or manipulated ideas about gender. Although this project explores and analyses the impacts to women more than a traditional military history does, it could not be considered a feminist ethnography. Nevertheless, I was mindful of the problematic assumption in many feminist works that all women share the priorities of white, western women (Ong 1995; Smith 1999; Trask 1996).

In an effort to discover local histories and changing opinions on the military, questions about traditional Iñupiaq conflicts, the Alaska Territorial Guard, WWII, Project Chariot, the Alaska Aeromedical Laboratory's activities in the Arctic, military service, and feelings about patriotism were included in interviews. The goal was to explore different understanding of wartime service and patriotism, peacetime defense industry, and other military activities. Certain questions were designed to discover whether and how arctic residents delineate between a *military* impact versus the various other impacts of the past century's rapid industrialization and globalization. These questions were designed to explore theories that military development, with its use of fear, hierarchy, and appeals to patriotism, is distinct from industrial development and to test the hypothesis of

certain militarization scholars that most militarizing processes occur during “peacetime” (Enloe 2004; Lutz 2002).

Preliminary discussions with residents led to the conclusion that, from a local perspective, the primary legacy of the DEW line is the environmental impact of the sites. Questions concerning contamination and pollution explored residents’ feelings about contamination issues and the adequacy of clean up projects. In studying the organization by local communities to force the military to clean up toxic pollution on and around military bases, geographer Joni Seager (1993) found that the leaders are most often women, and I was curious if this pattern had appeared in the Arctic. The project also incorporated the findings of arctic contaminants researchers regarding how arctic residents understand contamination, including whether any traditional food was avoided due to fear of contamination and whether it was believed that the contamination came from the DEW Line. A 2005 survey and study in Canada found that many arctic residents relate the concept of contamination to rusted metals, garbage, old batteries, and old DEW Line or military sites, while fewer related the concept to air pollution, mercury, PCBs, and nuclear waste. Many, however, related the word to food and health in some way (Myers 2006).

During project design, it was anticipated that the military could be a sensitive topic for people and that people might be reluctant to speak about DEW Line legacies if they had negative feelings. As mentioned above, I had no problem finding outspoken people who shared their opinions freely. However, there are other, more complex issues regarding why some people are reluctant to discuss many subjects. Silence, in oral history surveys, should be considered as its own type of response with meaning behind it. One reason that was anticipated is that native people feel great frustration for the way their histories have been collected, managed, and used; the writing of oral histories often does them injustice and at a minimum removes them from their individual context of place, time, and audience (Mather 1995). In using oral history to explore how people talk about the DEW Line, this project is creating knowledge – not just reporting it (Morrow 1995). Particularly when studying ongoing and shifting

issues like militarization, I concur with Cohen (1994), who proposed that we see history as a continuous process of formulating and looking for the different ways people express their understandings. UAF's oral historian William Schneider advised that "our task as scholars of the North is to learn how to listen" (2006). This includes knowing when and how people convey important information, realizing that a story may not be explicit while still conveying a sentiment, and recognizing that stories in that form are often used to talk about intercultural relations.

### *Analysis*

All but a few of the interviews were recorded and then transcribed. Approximately half were videotaped, only the audio was recorded for many others, and notes were kept during interviews that were not recorded. Among the most important aspects of personal education this researcher received during fieldwork was that preconceived notions of oral history standards can be very disadvantageous in the field and that the best method of recording an interview is completely specific to the interviewee. I incorrectly assumed that modern ethnographies require recorded interviews and that written notes on "unofficial" discussions would be less acceptable as data. Had I not misguided myself with this notion from the beginning of the fieldwork, I would have collected more interesting information from more people. Another common assumption is that people are more likely to be apprehensive about being videotaped than simply having their audio recorded. In fact, video is a widespread and appreciated medium in arctic communities and many people are quite keen to participate in any project that might evolve into documentary film, while an audio recording is more abstract and less likely to be something the person or community can feel like they own or enjoy.

Regardless of how it was recorded, each narrative has been interpreted on an individual basis, considering the context, the interviewee's age, gender, social standing and the nature of his/her relationship to the DEW Line. Because a central goal of this project was to document the environmental history of the DEW Line system from the perspective of the people living in that environment, research was guided by an interest in local knowledge and the legacy of the DEW line in terms of perceptions of contamination

and other environmental effects. A brief summary of (western) scientific environmental data is included, but it was not the aim of this project to undertake technical observations or conduct environmental tests. This aspect of the project is informed by the body of research on contaminants in the Arctic, cultural understandings of risk, and communication of scientific research with indigenous communities (Cone 2005; Cote et al. 2005; Dewailly and Furgal 2003; Di Gangi 2000; Downie and Fenge 2003; Elias and O'Neil 1995; Fenge 2003; Furgal 2005a; Furgal 2005b; Furgal et al. 2005; Holz 1986; Huntington and Sparck 2003; ISER/ANSC 2000; Kuhnlein et al. 2003; Larson 2005; Myers 2006; Northern Contaminants Program 2003; Nuttal 1998; Reiersen et al. 2003; Watt-Cloutier 2003).

Although the methodology for this project is grounded in the belief that each community and each DEW Line site has its own specific history, systematically treating each DEW Line site individually is not an ideal way to convey those histories. Therefore, while it was important that the fieldwork be organized geographically, this dissertation is organized thematically and allows individual stories to illustrate specific place histories within that framework. Moreover, although there are important differences between the legacies of the DEW Line in Alaska versus in Canada's western Arctic addressed in this research, it quickly became clear during fieldwork that framing the entire dissertation around that broad comparison was inappropriate. For the local people, far greater differences exist depending on the size of the community and the distance to the DEW Line site. Moreover, an individual's personality had greater influence on their opinions about the DEW Line than their nationality. Therefore, the differences observed between genders, generations, and nationalities are analyzed, but comparisons between individuals and communities truly allow this study to identify the variation in notions about security priorities and perspectives on the social and physical legacies of the DEW Line.

### ***Organization***

The second chapter of this dissertation discusses the anthropological study of militarization, including a discussion of anthropology's historical relationship with the military, the various aspects of conflict and violence investigated by scholars, and the

U.S.'s 'empire of bases' (Lutz 2009b) around the world. Subsequently, the historical context for the DEW Line is described through a brief exploration of the military build up in Alaska and governmental policies in Canada during the decades leading up to the Cold War. The fourth chapter presents research findings and ethnohistorical information on the construction of the DEW Line, the unique society of DEW Liners and their relations with indigenous residents. The investigation then turns to the land and the DEW Line's permeation of the arctic environment, including how useful features of the infrastructure were incorporated and how the legacy of contamination and dumps shapes the land now. The conclusion brings the discussion to the psychological impacts of arctic militarization, an analysis of several of the main impacts of the DEW Line, the future of Arctic security, issues of Inuit cultural resilience and Inuit control over the future of their land.

### ***Goals of research***

I hope that this research project can in some way benefit the people of the Arctic. Perhaps by describing some of the impacts of militarization in that region to date, this dissertation will contribute towards efforts to move towards international cooperation, environmental protection, and economic and social security in the North.

Many people are under the impression that the Arctic is a remote and pristine untouched wilderness. In their passion to protect arctic lands, some environmentalists fail to fully consider the experiences and the economies of the people who live there. The modern (and ancient) history of the Inupiaq people is inextricably tied to that land, and an understanding that people do not want their homeland commandeered for any cause may be furthered by this research.

This research could also be significant for people who have never considered the militarization of the Arctic, because it is critical that U.S. citizens recognize the extent of their global military empire and the many local impacts of military bases. Perhaps stories like those surrounding the DEW Line will make people more curious about the fate of indigenous peoples around the world whose land has also been commandeered by the U.S. military, but who enjoy few of the environmental or individual protections afforded to citizens of the U.S.



The subsequent chapter in this dissertation describes anthropology's history with the military and, as expressed by many scholars, the desperate need for analyses of U.S. bases and the ways Americans are propagandized. By studying the DEW Line and its impacts on communities of the western Arctic, I hope to contribute both to critically informed ethnography of the North and the detailed, on the ground study of militarism.

**Chapter Two:**  
**Colluding & Deconstructing, Embedding & Confronting:**  
**The Anthropological Study of Militarization**

Anthropology has had a long and controversial relationship with the military; one that has at times threatened to permanently harm the discipline, and which has caused anthropologists to debate and define their roles as scholars and to codify the disciplines' ethical standards. The current incarnation of this relationship is as critical a battle as ever and comes at a time when a growing and outspoken group of anthropologists is turning their sites on the military and global militarization as research subjects. Ethnographic studies of militarization are providing crucial insights into the local effects of this key globalizing process, and anthropology is particularly well suited for holistic investigations of issues that have been largely restricted to the domain of political science and history. Anthropologists are investigating every aspect of militarization, from individual experiences to global political and economic systems. An ethnographical study of arctic militarization draws from and contributes to two of these burgeoning and interconnected discourses within anthropology: ethnographic investigations of indigenous land and people around the world that have been affected by U.S. military bases and repatriated critiques of western culture and U.S. militarism.

***Anthropology's Dysfunctional Relationship with the Military***

Originally situated within the wider field of the study of conflict, anthropological studies of military conflict increased after World War II, especially in the late 1950s and 1960s as the world experienced an increase in internecine and Cold War counterinsurgency warfare, national liberation struggles, and decolonization in developing countries (Green 1994; Sluka 1992). In tracing the field's sharp rise over the past few decades, Sluka sees it reflecting the worldwide historical trend of increasing violence and war. He notes that anthropological research into conflict was also inspired

by the Cold War threat of nuclear holocaust and, especially in the U.S., the war in Vietnam. He perceives a shift in focus of anthropology's primary interest, complete by the late 1960s, away from social order in relatively stable societies toward social conflict in societies undergoing rapid change (Sluka 1992). Sluka and anthropologist Linda Green (1994) concur that, in the past, the field's perspective was divorced from historical reality and emphasized taxonomy over process. Practical reasons have also distracted anthropologists from digging into the pervasive effects of violence; post-World War I funding favored functionalist approaches which labored under the belief that conflict was not the norm and thus not as worthy of study.

Anthropological theories, then, have examined violence but have not had a strong focus on the lived experience of those who suffer from it (Kleinman, et al. 1997). As outsiders, ethnographers have traditionally had a degree of distance from war and conflict. Even with blatant repression and state terrorism in many of the countries in which anthropologists work, Green (1994) points out that there have been no systematic inquiries of human rights abuse. Scholars neglected crucial questions about the armed forces and conflict, according to Carol Greenhouse (1989), because of a common premise within anthropology that war is pathological and because so many within the discipline are inclined to oppose it. Catherine Lutz's criticism is that after Vietnam and decolonization, "anthropological thoughts turned on how to write less imperial ethnographies, but not ethnographies of imperialism" (2002: 732). According to Green (1994), however, early works that focused on colonialization were marginalized, further disincentivizing scholars from the field.

There are certainly other important reasons behind anthropological resistance to the study of modern wars and those who wield force. Anna Simons, in her comprehensive review of the study of war in the social sciences (1999), notes that the history and rationale behind the military being a taboo subject among anthropologists center on suspicions of anthropologists assisting the military. The suspicions are well grounded, and anthropologists have long recognized and wrestled with the colonial origins of their discipline. Few, however, have seriously examined its contributions to warfare even

though recurring episodes of anthropological collusion with the military have created the strongest rebuttals from anthropological organizations and, especially in the decades following World War II, cast dark shadows of suspicion over the entire discipline.

A well-known affair that foreshadowed the debates of subsequent anthropologists occurred during World War I, when Franz Boas condemned four colleagues for using anthropological research as a cover for spying, an action for which Boas was censured by the AAA<sup>7</sup>. Boas was openly opposed to American involvement in World War I, criticized the U.S. education system's promotion of nationalism, and bemoaned the rapid militarization of the public. In reaction to intense public and academic pressure for academics to either support the war or remain silent, Boas promoted the view that scholars' first duties were to humanity as a whole and that one's obligations to humanity were higher than those toward one's country. Boas was deeply disappointed when it became clear to him that individual freedom no longer existed in the U.S., while many other social scientists who did support the war began to take advantage of new job opportunities with the military or intelligence networks (Price 2008). However, it wasn't until World War II that the applications of anthropology to warfare became widespread.

In his recent exploration of the field's contributions to World War II, anthropologist David Price (2008) makes it clear that he does not mean to criticize those anthropologists who, during a war much nobler than subsequent conflicts, made choices to work for the military within a historical context that should be considered on its own terms. He does, however, wish to employ a presentist perspective in studying this past so that contemporary and future anthropologists can learn from it and better understand anthropology's current situation. One result of disregarding the range of anthropological contributions to 20<sup>th</sup> century warfare was the removal in the 1990s of the AAA ethics code prohibiting covert research. Another result is that this ignorance facilitates current CIA and Pentagon recruitment campaigns (Price 2008).

Price found that the applications of anthropology during World War II had intended and unintended outcomes, and that much of the best work was directed at the

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<sup>7</sup> The censure was overturned by an overwhelming vote of the AAA membership in 2005.

practices of the military policy makers. American anthropologists joined new wartime military and intelligence agencies - many out of a sense of patriotic duty and a feeling that using anthropology to fight such a war was a natural response. By 1943, the AAA Secretary Fred Eggan reported that over a half of the professional anthropologists in the country were directly involved in the war, and most of the rest were doing part-time war work. The ethical questioning and objections of a minority of scholars were ignored. The anthropologists doing war work designed new techniques of quantitative social science to explore why most American soldiers did not seem to know who or why they were fighting, and why it did not matter. Some anthropologists worked on domestic propaganda projects that indoctrinated soldiers and the public about the evils of totalitarian governments. Most applied their knowledge and skills to fighting the war abroad, while some worked their way into institutional employment that led to post-war positions at newly created agencies like the CIA. While some felt that they had brought about positive changes in military decision-making, their advice was frequently ignored (Price 2002; Price 2008). The following quote from Froelich Rainey, the founder of the Department of Anthropology at the University of Alaska Fairbanks, describes the position in which some anthropologists found themselves:

*War propaganda of the period meant nothing to me, but in a global war it was impossible to avoid some part in it. If I took a commission in the Army, as urged by so many army friends employed with the Alaskan supply routes, I would obviously end up in the cul-de-sac of the Aleutians, where the Army was desperate for men who knew the Arctic. An alternative was the Board of Economic Warfare, where I could serve the country and yet not have to kill men with whom I personally had no quarrel. Looking back at the war years and remembering all the troops I served with as a civilian, I think now that war is for most men the ultimate sport. Bored with the routine of conventional jobs and eager for the excitement of risking their lives, few can resist the appeal of war. – Froelich Rainey, founder of the Department of Anthropology at the University of Alaska Fairbanks (1992).*

Price maintains that although there is no guarantee that anthropologists' recommendations to the military and government will be heard, anthropologists still have a "fundamental duty as scholars and citizens to counter the limited view of American and allied policy makers." The evidence suggests that these efforts are most effective if "we operate as citizen-scholars outside of governmental agencies" (Price 2002: 20). Price echoes the cautionary advice of others anthropologists who are opposed to collaboration with the military: "If anthropologists will not take action to limit the wartime applications of their discipline, then we do not deserve the trust of those we study in the field" (Price 2002: 20).

A disciplinary isolation that arose after World War II was further strengthened by anthropologists' secret involvement in Vietnam. As part of the CORDS program in Vietnam (Civil Operations and Revolutionary Development Support), ethnographers involved with Project Phoenix mapped 'human terrain' (in this case, knowledge of village life in Thailand and the highlands of Vietnam) that was used by the Special Forces to identify suspected individuals and groups that the military believed were sympathizing with the Viet Cong. Those people and groups were then targeted for assassination, and over 26,000 suspected Viet Cong were killed as part of CORDS. The disclosure of CORDS in 1971 was met with public outrage. The American Anthropological Association erupted into dissension and the new Rules of Professional Responsibility condemning secret research were accepted. Following the CORDS episode, the Pentagon showed no further interest in social science for several decades.

### **Human Terrain System**

In 2007, however, the American Anthropological Association executive board was back at the table to revisit the ethics code in response to the modern controversy – the Human Terrain System, which has been described by military analysts<sup>8</sup> as a CORDS for the 21<sup>st</sup> century. The United States military, the Central Intelligence Agency, and

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<sup>8</sup> (Jacob Kipp, historian at the U.S. Army's Foreign Military Studies Office [FMSO] at Fort Leavenworth, Kansas)

other government agencies and military contractors have been recruiting anthropologists and other social scientists to work with the Human Terrain System since 2006. With \$200 million in funding (according to one report, \$250 million has already been spent), Human Terrain may be the largest social science-based project in history. Despite ongoing controversy, it was recently reported that Human Terrain is slated for at least a \$40 million dollar expansion. Furthermore, the program has plans to move up from the brigade to the corps level, and is set to become a pivotal element in many other U.S. combat commands. This means that in addition to being part of Central Command (CENTCOM), Human Terrain would be also integrated into commands for Africa (AFRICOM), Asia, and the Pacific. Within the military leadership, a group of “warrior intellectuals” are enchanted with the Human Terrain program and see it as the key to the military’s long-term success. Many now refer to the wars in Iraq and Afghanistan as “the social scientists wars” because they will rely upon strategic advantage supplied by social scientists. As one former U.S. Army War College commander and deputy chief of staff for doctrine wrote: “*We are in for decades of psycho-social warfare. We must begin now to harness the potential of the social sciences in a manner not dissimilar to the Manhattan Project or the Apollo Project*” (Scales 2006).

To this end, five-member Human Terrain Teams are assigned to combat brigades in Iraq and Afghanistan and they include a uniformed (and usually armed) social scientist who is tasked with providing “operationally relevant cultural knowledge” to the brigade commander. The idea is that the anthropologists are able to advise commanders to prevent them from misreading local actions, help the troops understand who is not their enemy, and help the Army “influence the population through non-lethal means” (Stamets 2008). Human Terrain is designed to “win hearts and minds” by emphasizing humanitarian efforts such as building clinics, remodeling schools, or repairing mosques. David Kilcullen, a policy-planning advisor in the State Department, special advisor to General Petraeus, and an social science PhD who specializes in counterinsurgency, refers to the Human Terrain System as “armed social work” (Gusterson 2008). Although some promoters deny that Human Terrain Teams are collecting human intelligence (HUMINT)

or identifying enemies, there is a good deal of evidence (including several statements by military leaders) indicating that the system was created primarily as a tool for espionage, that Human Terrain Teams *are* gathering HUMINT, and that the information will be used to target suspected militant Islamic infrastructure and to pursue alliances with key power figures. Moreover, the information will eventually be turned over to the new governments of Iraq and Afghanistan.

The Human Terrain program was met with largely enthusiastic support from most mainstream media, the public and some anthropologists. On the face of it, it seems like a positive thing to ameliorate cultural misunderstandings between U.S. troops and the populations of the countries the U.S. occupies, and no one disagrees that general anthropological understandings could improve the military. It is very appealing and seductive to think that anthropological perspectives might be used to benefit everyone. The reasons that the American Anthropological Association and other groups do not support such work are not immediately obvious to everyone but deserve careful consideration.

This uproar in anthropology, similar in many ways to previous episodes of military collusion, is due to the fact that participating in Human Terrain violates the American Anthropological Association's code of ethics in several ways and, in doing so, could harm the entire discipline of anthropology. In response to significantly increased funding for the Human Terrain program, eleven anthropologists founded 'The Network of Concerned Anthropologists' in September of 2007 to create and circulate a Pledge of Non-participation in Counter-insurgency. Its members also run a website and publish articles and books on aspects of this issue. The pledge is based on the belief that anthropologists should not engage in research and other activities that contribute to counterinsurgency operations in Iraq or related theaters and that anthropologists should refrain from directly assisting the US military in combat. The members of this network and other anthropologists raised concerns about the Human Terrain program to the American Anthropological Association, and, at the annual AAA meeting in November 2007, anthropologist Terrence Turner sponsored a motion at the business meeting calling



for a restoration of language that condemns secret research. The Executive Board decided to review the issue and rewrite the ethics code, and they also released a statement expressing their disapproval and conclusion that the Human Terrain Program was “ an unacceptable application of anthropological expertise.” In 2008, the AAA executive board released a new draft of the ethics code that clarifies, among other things, that clandestine research is never acceptable. The Board of the Society for Applied Anthropology also issued a resolution expressing grave concern about the Human Terrain program. The AAA Executive Board also tasked a Commission to thoroughly review the Human Terrain System program and the implications it might have for anthropology and anthropologists.

The primary problems with Human Terrain concern the longstanding ethical code which states that anthropological research should never be used to inflict harm, that anthropologists must seek the consent of the population being studied, and that the work must not be done in secret. It is important to note that all professional ethics codes are derived from the Nuremberg Code, which was created to discourage scientists from doing work that puts human research participants in harm’s way. Embedded anthropologists cannot obtain free consent from Iraqi and Afghani interlocutors, especially when the anthropologists are in uniform, armed, and traveling with U.S. soldiers. Not allowing Iraqis and Afghans to grant informed consent is a violation of the Nuremberg code. Anthropologists are supposed to spend time with the people they study, earn their trust, and hopefully get them to share their worldviews. The AAA code of ethics makes it clear that an anthropologist’s obligations to those he/she studies outweigh any other obligations they have, no matter what conflict of interest the anthropologist may have. The AAA code states: “*Anthropologists must do everything in their power to protect the physical, social, and psychological welfare and to honor the dignity and privacy of those studied.*” Participating in such work also violates ethical standards because it can be covert or secretive: the anthropologists will not be able to identify themselves or distinguish themselves from military personnel. Human Terrain work furthermore violates the ethics code because embedded anthropologists will also not be able to control

the use of the information they collect and ensure that it isn't used to harm the communities they study.

The Human Terrain program also presents an issue of disciplinary self-interest for anthropologists. Anthropologists can only do research if people are willing to talk to them, and serious problems can be created for the discipline because collaborating with the military creates suspicion of anthropologists everywhere, as people will not know if visiting ethnographers are actually spies or military operatives. Consequently, in the future people may not be willing to talk to anthropologists.

The problems discussed above constitute the clear ethical violations of Human Terrain, but the program raises several other profound issues. Critics have noted that the term 'human terrain' itself has a dehumanizing and objectifying effect, and in fact it was voted the most euphemistic word of the year in 2007 by the American Dialect Society. Brigade leaders are to understand human terrain just like a map analyst understands bridges and rivers, so the term portrays human beings as geographic space or territory to be conquered. Interestingly, the term was first used decades ago for domestic insurgency groups like Students for a Democratic Society and the Black Panthers.

The senior social science adviser to the Human Terrain program is controversial anthropologist and insurgency specialist Montgomery McFate, who claims that "[t]he national security structure in the U.S. needs to be infused with anthropology, a discipline invented to support warfighting in the tribal zone" (McFate 2005: 43). Although McFate was unemployed in 2001 (after stints of employment as a spy helping her mother-in-law infiltrate gun control groups on behalf of the NRA), she began a quest to make anthropology relevant to the military. By 2004 she was a researcher at Rand and soon had outlined a strategy for integrating the social sciences into national defense.

McFate is one author of the U.S. Army and Marine Corps' new *Counterinsurgency Field Manual FM-3-24*. The Manual was a popular government document that was republished by the University of Chicago Press and received a great deal of media attention, much of it praising it as a rare work of applied scholarship. Sold as a "paradigm-shattering" and "revolutionary challenge to conventional U.S. military

doctrine,” critics claim that the manual simply explains how to pacify an occupied country so that its people will willingly support U.S. strategic interests. Moreover, it proposes the oldest imperial tactics known. David Price, in addition to compiling evidence that the *Field Manual* is replete with unacknowledged passages, argues that McFate presents only anthropological knowledge that supports the military, instead of illuminating it. Her “selective” use of anthropology, says Price, “ignores anthropological critiques of colonialism, power, militarization, hegemony, warfare, cultural domination and globalization” (Price 2007). The Manual has been criticized for de-emphasizing combat and ignoring politics while presenting a calming depiction of counterinsurgency as if it were a global project of applied anthropology. Furthermore, it presents counterinsurgency as an advanced and enlightened form of warfare that respects the people under occupation and it depicts colonialism as the natural course of history.

Counterinsurgency is the term currently used to describe the types of conflicts that have previously been described as small wars; counter-guerilla wars; imperial policing; counter-revolutionary wars; or low-intensity wars. Critics see these as euphemisms for occupation that specifically refer to the elimination of an uprising against a government – to the suppression of revolutionary movements in occupied territories.

The members of the Network of Concerned Anthropologists point out that counterinsurgency wars have always been fought on two fronts – one with the insurgents and one with the general public will in the home country. Anthropologist David Vine writes that Human Terrain Teams are part of a strategy to “rebrand” the wars abroad and at home. The teams are supposed to be creating goodwill in Iraq and Afghanistan, while changing the image of the wars in the United States with “feel-good stories and the softer, scholarly visage of culturally sensitive ‘warrior-intellectuals,’” (Vine 2007: B9). Reports covering the Human Terrain System have appealed to the emotions, portraying social scientists as selfless humanitarians who are working miracles. The Network of Concerned Anthropologists members point out that this public relations campaign is expertly run by Human Terrain Strategic Communication Advisor, Laurie Adler, who was previously

employed by the strategic communications firm Lincoln Group, which gained notoriety in 2005 for paying Iraqi journalists to plant pro-U.S. stories in the Iraqi press.

In the preface to the *Counter-Counterinsurgency Manual* by the Network of Concerned Anthropologists, anthropologist Marshal Sahlins wrote:

*“...the applied anthropology of the US military may be described something as follows: a planetary strategy of research and destroy, involving the deployment of armed and largely culturally illiterate American forces from among the thousand or so garrisons now distributed on foreign soil, sometimes complemented by second rate mercenary academics, all charged with an investigation of the cultures of the local peoples sufficient to determine if and how they can be subjugated or, failing that, taken out.”*

Human Terrain is understood by critics as a key to the old colonial tactic of divide and conquer: information about local political hierarchies facilitates the process of co-opting regional strongmen (tribal sheiks, warlords). This is the first step in “indirect rule,” the form of colonial control where the natives and native institutions are incorporated into the empire’s framework, turning people against their countrymen.

In spite of the impressive salaries and opportunity for adventure, the Human Terrain Program is having a very difficult time recruiting social scientists to work for them. Reasons for this include the intense and widespread opposition to the program among academics. A second reason is the danger of the job: three have died so far, and one was charged with murder. The program has been investigated for death threats against female employees of teams made by male members of the same team. Former Human Terrain employees have filed official complaints regarding serious problems with the program’s training, retention, contracting practices and oversight.

## Minerva

In spring 2008, the Pentagon announced a second large social science program: the Minerva Consortia<sup>9</sup>. With \$50 million in funding over five years, Minerva is designed to mobilize social scientists to conduct open research related to the war on terror. U.S. Secretary of Defense Robert Gates expressed hope that anthropologists will apply to work on research projects such as translating and analyzing captured Iraqi documents, helping collate open-source documents pertaining to Chinese military policy, researching the relationship between Islam and terror, and producing new experimental fields that might be as important as game theory and Kremlinology were in the Cold War (Gates 2008). Secretary Gates would also like to see universities relax admissions for military veterans and to fast-track military students by giving them academic credit for their military experiences (Gates 2008). Overnight, the Minerva Initiative has established the Pentagon as one of the largest funders of anthropological research in the U.S. today.

The Network of Concerned Anthropologists (NCA) concedes that Minerva does not involve the obvious ethical liabilities for scholars that Human Terrain does and they appreciate that the Pentagon is trying to make the program as open as possible. The serious problem they see with the program is that the Department of Defense does not have a well-established track record for funding social sciences and is not skilled at doing peer review of such research. Therefore, they feel that if the federal government wants to fund free and open scholarly research on these subjects, it should do so through its normal institutions for inviting and adjudicating research (Gusterson 2008). The Network of Concerned Anthropologists also argues that the U.S. university system is already highly militarized, that universities with defense funding become instruments rather than critics of war-making, and that this support introduces subtle but powerful biases into research and distorts the focus of fields that depend on it:

*“Whole fields of study hypertrophy and others shrink or are never developed as researchers are drawn from one field into the other, Pentagon-desired ones.[] [T]heory,*

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<sup>9</sup> Warriors and wisdom are two specialties of Minerva, a virgin Roman goddess.

*methodology, and research goals in such fields as physics, computer science, and engineering after decades of military funding now operate on assumptions that knowledge about force is paramount” (Network of Concerned Anthropologists 2008).*

The members of the Network of Concerned Anthropologists argue that anthropology is one discipline that has remained largely demilitarized, but that a new generation of anthropologists will now have to decide whether they will be “washed along with the tide of U.S. militarism” or they will maintain their discipline’s status. If anthropologists take a military turn, they know what to expect based on the history of other disciplines:

- there would be a large infusion of money while at the same time a narrowing of research subjects and points of view
- we would have separate conferences and journals for anthropologists who do security work
- we will experience a widening gap between those with access to the security state & those without
- we will see curricular changes in anthropology, including new masters programs tailored to the production of analysts for the national security state
- anthropologists in the field will experience increasing problems of access because they will be seen as agents of a foreign hegemony
- we will see a progressive marginalization of those scholars who were formerly at the core of discipline, who refuse to undertake this kind of work (ibid)

Anthropologist Hugh Gusterson has described how during the Cold War, physics departments narrowed their focus and became more pragmatic and less philosophical. Gusterson thinks that we can imagine that anthropology funded by the military would be

less interested in new international theories, less literary, less reflexive, less radical, and less engaged with cultural critique. Also, it would be geographically clustered around the Middle East, Latin America, and Africa.

### *Advocating ethnographies of militarization*

A decade ago, Hugh Gusterson contended that the Vietnam CORDS “fiasco” resulted in an “allergic” response to security issues among many anthropologists (1999b). He lamented that anthropology’s subsequent tendency to study the underdog and the promote marginalized leaves the study of elites and the mainstream, including the military, to psychologists, sociologists, and political scientists (Gusterson 1993). Contemporary authors note that the emergent literature on global processes and structures in anthropology has largely ignored military institutions and the social effects of militarization (Simons 1999). Even as many now accept that the local and the global are interpenetrating and mutually constructive forces, war-zone ethnographers like Carolyn Nordstrom find that while conflict occurs in the midst of global political systems, people’s actual experiences in a war zone are largely invisible. Catherine Lutz argues that the larger picture of militarization and its history is connected to particular communities and individual lives (2002), and Hugh Gusterson (1999b) thinks that until anthropologists make modern military institutions and ideologies “integral to their narratives of globalization, they are not getting the whole story.” Peabody (2000: 170) notes that despite the immense scale of global grids and systems, modern ethnographies on violence reveal “often surprising perspectives” which “illustrate that the global only exists through the local, and that ethnographic inquiry must remain central to this project.”

Gusterson believes that anthropology has a special contribution to make to policy debates surrounding globalization and militarization issues. Gusterson sees his work at the confluence of the anthropology of the global system and the anthropology of science, showing the new types of questions anthropologists could investigate. Gusterson’s work on nuclear weapons labs, *Nuclear Rites* (1998) and *People of the Bomb* (2004), are examples of his many recent publications exploring the military-industrial complex and how it has transformed public culture. Leaving the study of security (including weapons,

wars, armies, and military ideologies) to other disciplines, he argues, has had negative impacts on both anthropology and security discussions. Gusterson is familiar with the claim that the power of nation-states is withering in the face of new transnational flows and that national allegiances are overwhelmed and undermined by many new postnational forms of identity. This might appear true, concedes Gusterson, if we were restricted to studying migrant flows and electronic capital. However, the nation-state looks less fragile from the point of view of the militarization of scientific institutions, the accumulation of weapons, and the widespread increase in nationalist and militarist ideologies (Gusterson 1999b). He proposes that “militarism is all around us – in our politics, in our economy, and in our culture – and it is in danger of becoming so large and so much a part of our common sense that we lose the ability to see it in its entirety and with the kind of critical perspective that might enable us to take control of it rather than unconsciously inhabit it” (Gusterson 2004: xxvi).

Nordstrom questions whether academics have avoided the subject because the public simply does not want to know the true nature of war and militarism, and she asks what has become of the academy’s claim to pursue knowledge. She describes the difficulty in exploring “the true story of ourselves” (Nordstrom 2004: 32) since there are reasons to fear it could lead to utter alienation; people are offended by the telling of the truth. Nonetheless, Nordstrom (1995) urges anthropologists to a holism that does not isolate zones of violence from the full richness of the human experience and she suggests that “[e]thnography must be able to follow the question” (2004: 13).

Beyond the call for militarization research, a chorus of scholars encourage advocacy in this line of work. In his work on violence and terror in Sri Lanka, E. Valentine Daniel (1997) notes that violence is horrible and dehumanizing, but that there is very little sustained research exploring how this is so. Richards believes that a crucially important potential of this kind of work is to counter the journalistic clichés surrounding, and unwittingly supporting, wars. Anthropologists are well-positioned, with their cross-cultural, comparative and holistic approach, to research political violence victims and act as scribes and intermediaries for them, yet few have (Green 1994). Lynn Stephen



concurr; anthropological insights are key in clarifying the reality of political violence, and anthropologists have a responsibility to use those insights for the sake of the people they study. Anthropological works on political violence provide ways of understanding the “underlying culture wars being waged to redefine nations” and lift the veil on the cultural processes that are taken for granted within militarization (Stephen 2000: 822). Stephen states that her work is in the spirit of the call made by Arthur Kleinman, Veena Das, and Margaret Lock in their book, *Social Suffering* (1997); anthropologists should move past the old dichotomies that “separate individual from social levels of analysis, health from social problems, representation from experience, suffering from intervention.” These authors suggest that anthropology should convey the experience of suffering by using language of dismay, disappointment, bereavement, and alarm (1997).

Nancy Sheper-Hughes has put forth even stronger views: for anthropologists *not* to act as champions for their oppressed subjects is a hostile act of indifference. Monographs, according to Sheper-Hughes, can themselves become sites of resistance and solidarity through which anthropologists can be agents of social change (1992). Katherine T. McCaffrey’s account of the anti-military movement on Vieques, Puerto Rico, is explicitly motivated by the hope that the islanders would one day achieve a “long overdue measure of justice” (2002a: xi).

Catherine Lutz believes that anthropology students are trained to deconstruct the myth of modernity and progress and that they have learned about violence, genocides, and inequalities. However, too few of them have been confronted with graphic realities; they were still shocked by September 11. Lutz’s opinion is that ideas of the “U.S. imperium,” of global militarization, and the cultural politics that make war seem like a requirement are “missing pieces of anthropological knowledge [that] have only now come home to roost” (2002: 732). She suggests that ethnographic understanding of how militarization shapes places seems an urgent project for anthropology, as it will allow the patterns, weak spots, and costs to be seen in the “otherwise seemingly monolithic and beneficent face of state-corporate-media war making” (Lutz 2002: 730-731). Understanding the particular situations of America’s militarized communities, for

example, can provide insights that transfer to other places and illuminate the context of contemporary U.S. society. Nothing less than our future, she argues, depends on our examination of what militarization has wrought at home and abroad (Lutz 2002).

Eyal Ben-Ari (2004) agrees that U.S. militarization and the worldwide reach of U.S. armed forces are phenomena that have yet to receive much attention by anthropologists. He concurs with Lutz (2002) that anthropologists need to link the global and national histories of militarization to local ethnographic locations and people despite (and because of) the fact that it is one of the most politically charged issues.

Moreover, recent ethnographies that have traced the impacts of war and political violence are widening the appeal of anthropology outside its own field. Writing for the "Journal of Peace Research," anthropologist Christian Krohn-Hansen states that these works illustrate how some of anthropology's most constitutive insights, which were largely developed to understand small-scale societies and largely ignored the cultural construction of political violence, "can, and should, be used in order to study ethnographically the making of state power, nationalism, and political violence across the world" (Krohn-Hansen 1997: 237).

Anna Tsing reported in 2005 that, for the first time in many years, scholars across disciplines were leaping into the public eye to address the general public, and anthropologists were playing prominent roles in these new experiments. Impenetrable language and claims to exclusive expertise in collections are gone, Tsing contends (2005), in recent publications such as *Shock and Awe: War on Words* (van Eekelen, et al. 2005), written in response to U.S. militarization.

Anthropological analyses of contemporary U.S. propaganda and militarization fulfill what George Marcus and Michael Fischer (1999) described as one of the founding promises of anthropology: to provide worthwhile and interesting critiques of our own society. Marcus and Fischer's call for "experimental" ethnographies recounted that during the 1920s, anthropology presented itself as the comparative study of cultures and societies that would enlighten western society about other human possibilities and make accessible our own unexamined assumptions. It proposed to salvage distinct cultural

forms of life from the processes of global westernization and to use knowledge of other cultural patterns to reflect self-critically on our own ways. In this manner, they claimed, anthropology could disrupt our common sense and cause us to reexamine our taken-for-granted views. Catherine Lutz wrote that Gusterson's work on nuclear weapons laboratories in the U.S., for example, "makes strange what we have taken for granted about living with bombs" (quoted in Gusterson 2004: back cover)

Marcus and Fischer felt that the number of representations of other cultures has been significant, but that anthropologists have paid less attention to the second goal of cultural critique (1999). Critique here does not mean criticism, but is instead drawn from the Enlightenment idea of clarifying concepts and evaluating the relation between their logical grounds and their degree of validity. In anthropology, critique does imply exploring conditions for the validity of knowledge, but it also refers to anthropological methods of inquiry that are directed at evaluating cultural and social practices. These authors envisioned a modern form of cultural critique that would occur between distinct disciplines and would be broader than any one sphere of expertise, increasingly emerging from collaborative projects rather than individual studies. It is no longer new worlds or the exotic that require ethnological exploration, but "the discovery of worlds that are familiar or fully understood by no one," but which all are in search of understanding (Marcus and Fischer 1999: xvii).

In the first edition of their book, Marcus and Fischer wrote that anthropology needs to repatriate itself and study its home societies with a rigor equal to that it applied elsewhere. In the second edition, that notion had proven to be too simple and binary, as increasingly it became clear that many interesting social and cultural processes are translocal – they are operating across distinct cultural boundaries and across "hybrids, borders, diasporas, and incommensurate sites spanning institutions, domiciles, towns, cities, and now even cyberspace" (Marcus and Fischer 1999: xxix). For this reason, contemporary ethnographies must also be multilocal (multisited) and must encompass more than the study of cultural variations. Fieldwork should be seen as a "complex web of interactions" in which anthropologists collaborate with people in various, contrasting

settings to “track connections amid networks, mutations, influence of cultural forces and changing social pressures” (Marcus and Fischer 1999: xix).

What was experimental in the 1980s was, by the late 1990s, the mainstream of ethnography: an organizing focus on questions of identity. Explorations of the person, self, and emotions of people traditionally studied by ethnography have increased alongside new ways of contextualizing studies in terms of history and political economy, which Marcus and Fischer saw as precursors to the now-proliferating work exploring globalization through its local and regional impacts (1999). New subjects, with questions of modernity at their core, are investigating the transnational processes that are changing culture. Studies of the local effects of globalizing processes are an example of this kind of research.

Chalmers Johnson (2005) asked what contributions anthropologists can make to keep citizens informed despite the increasing secrecy of contemporary U.S. militarism. He wrote that there is a “desperate need” for more studies about the effects U.S. military bases are having on the countries that harbor them. Anthropologists are well suited to illustrate the environmental degradation, the exploitation of women, and the social and economic impacts that accompany what Johnson sees as imperial outposts. Moreover, he calls on anthropologists in the U.S. itself to provide many more analyses of the ways in which Americans are propagandized.

According to conservative scholars including Johnson (2004; Johnson 2008) and Andrew Bacevich (2009), the war-based economy and empire, combined with American profligacy and political apathy, is soon to collapse and bankrupt the country or worse if left unchecked. These and other scholars believe that in order to begin unraveling six decades of U.S.-led nuclearism and imperialism requires an international and interdisciplinary demilitarization effort. Research by anthropologists on militarization to date has outlined the scale and shape of the problem.

*The Bases of Empire*<sup>10</sup>

In recent years, this growing field within anthropology has been investigating, deconstructing, exposing and actively countering U.S. militarism on many of the fronts introduced above. Studies focusing on the experiences of indigenous and other local residents at U.S. overseas bases play a key role in this field that informs research on the DEW Line in several ways. Most of the DEW sites are in Canada and four are in Greenland. In military terms, these sites are ‘overseas’ in what are euphemistically referred to as ‘host countries.’ Research on overseas bases is also relevant for the DEW Line sites in Alaska because, although the Alaskan sites are domestic bases affecting American communities, they have at least as much in common with U.S. overseas bases as they do with the average domestic U.S. base. The military does designate Alaska and Hawaii as OCONUS: Outside the Continental United States, which allows some personnel to receive certain compensating benefits. Alaska’s DEW Line and other military bases are in many ways managed more like overseas bases. They and other military bases on indigenous land in the United States constitute a category of their own, one that is neither wholly colonial nor wholly domestic. For this discussion, ‘colonial/domestic’ will serve to describe bases on indigenous lands within the U.S. As colonial/domestic bases, these locations experience more complex militarization processes than either overseas or regular domestic bases do.

In many significant ways, the indigenous peoples in the States of Alaska and Hawaii have shared modern militarization histories. Although Hawaii’s strategic significance was recognized much earlier (the U.S.-supported overthrow of the monarchy was in 1894 and U.S. annexation of Hawaii was in 1989), both states are considered “Cold War states.” Both rose greatly in strategic importance during WWII and subsequently experienced a considerable Cold War construction boom, then achieved statehood largely due to the military’s presence. Militarism manages to make the military’s extensive presence in Hawaii, as in Alaska, seems natural and inevitable. In

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<sup>10</sup> While this term is the title of the recent edited book (Lutz 2009b), it has also emerged as the common term for the global complex of U.S. military facilities.

militarily saturated states, militarism produces one kind of order and mobilizes an array of narrative and institutional devices to naturalize that order (Ferguson and Turnbull 1999). The successes in government of both long-time Alaskan Senator Ted Stevens and Hawaiian Senator Daniel Inouye are closely connected to militarized practices of politics. In both states, the military has dismissed environmental problems and popular protests by invoking the self-justifying incantation of national security concerns. Current and recent U.S. protectorates with significant military presence also have much in common with Alaska and Hawaii. The primary militarized protectorates are Puerto Rico, Guam, and the Marshall Islands. Diego Garcia is similar although the U.K. is the official protectorate. Categorizing them together here in no way negates the fact that each location is unique, has a distinctive history with the military, and merits its own focused exploration. That said, whether bases are domestic, overseas, or 'colonial/domestic,' they share a history as part of the global U.S. military empire.

Those ethnographers who have turned their attention to the United States' complex of bases suffer from no dearth of subject areas (fig.s 9 and 10). Although the U.S. did have bases outside its territory prior to World War II, by the end of the war it had more than 30,000 installations at over 2,000 base sites globally. Today, the U.S. military has what is likely the largest collection of military bases in world history. According to official accounts, the U.S. manages approximately 4,300 installations within its own boundaries and has approximately 1,000 military facilities outside the country. Stationed at the overseas sites are over 190,000 troops and approximately 115,000 civilian employees. At these bases, the U.S. either owns or rents 795,000 acres of land and has 26,000 buildings valued at \$146 billion. These figures, with slight variations, have become either the main focus of or a standard introduction to most recent works on modern U.S. militarization, including the work of Chalmers Johnson discussed above, David Vine's *Island of Shame: the secret history of the U.S. military base on Diego Garcia* (2009), several articles by Catherine Lutz (i.e. 2007) as well as the recent

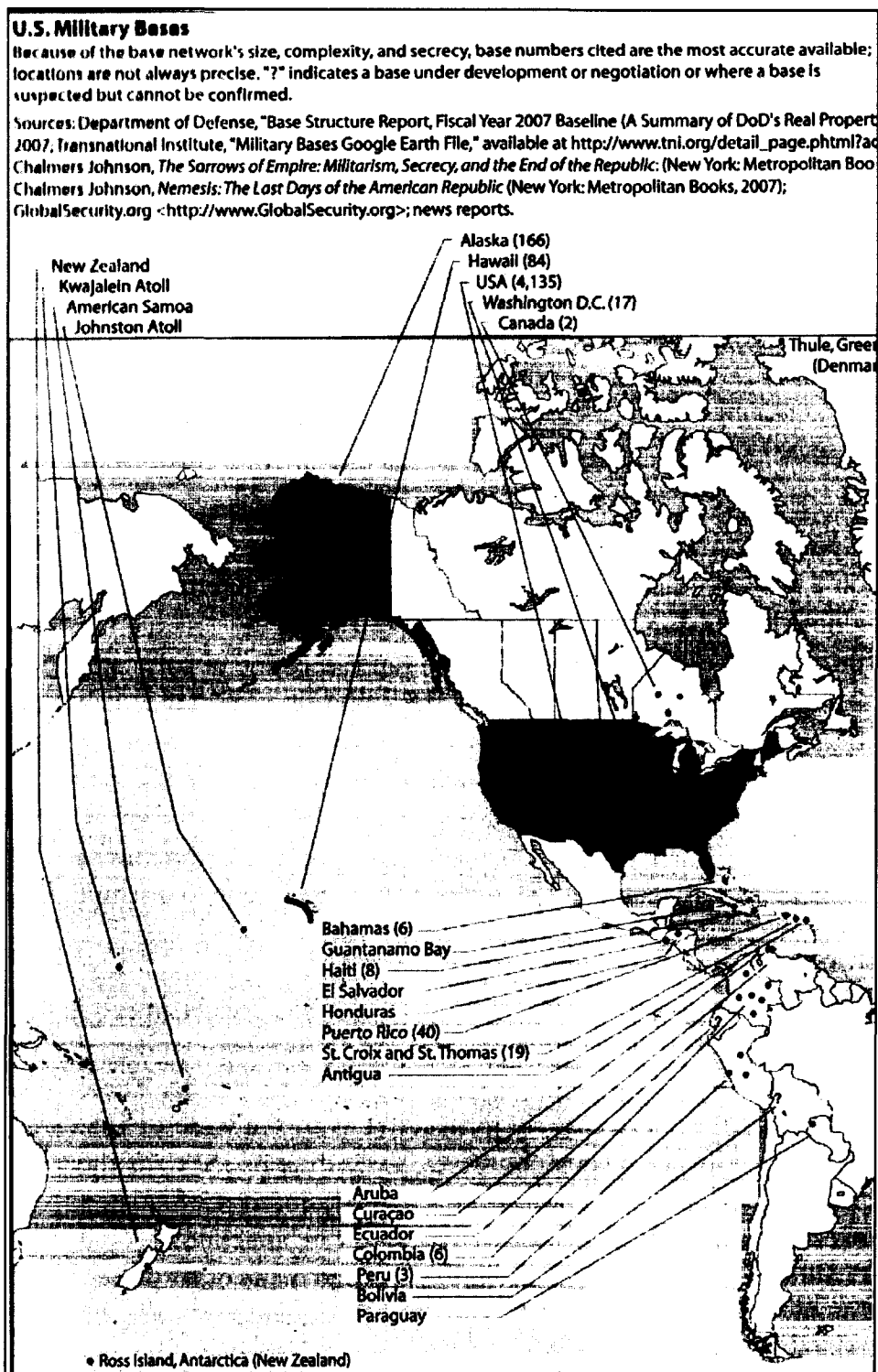


Figure 9: The Global U.S. Military Base Network (1 of 2)

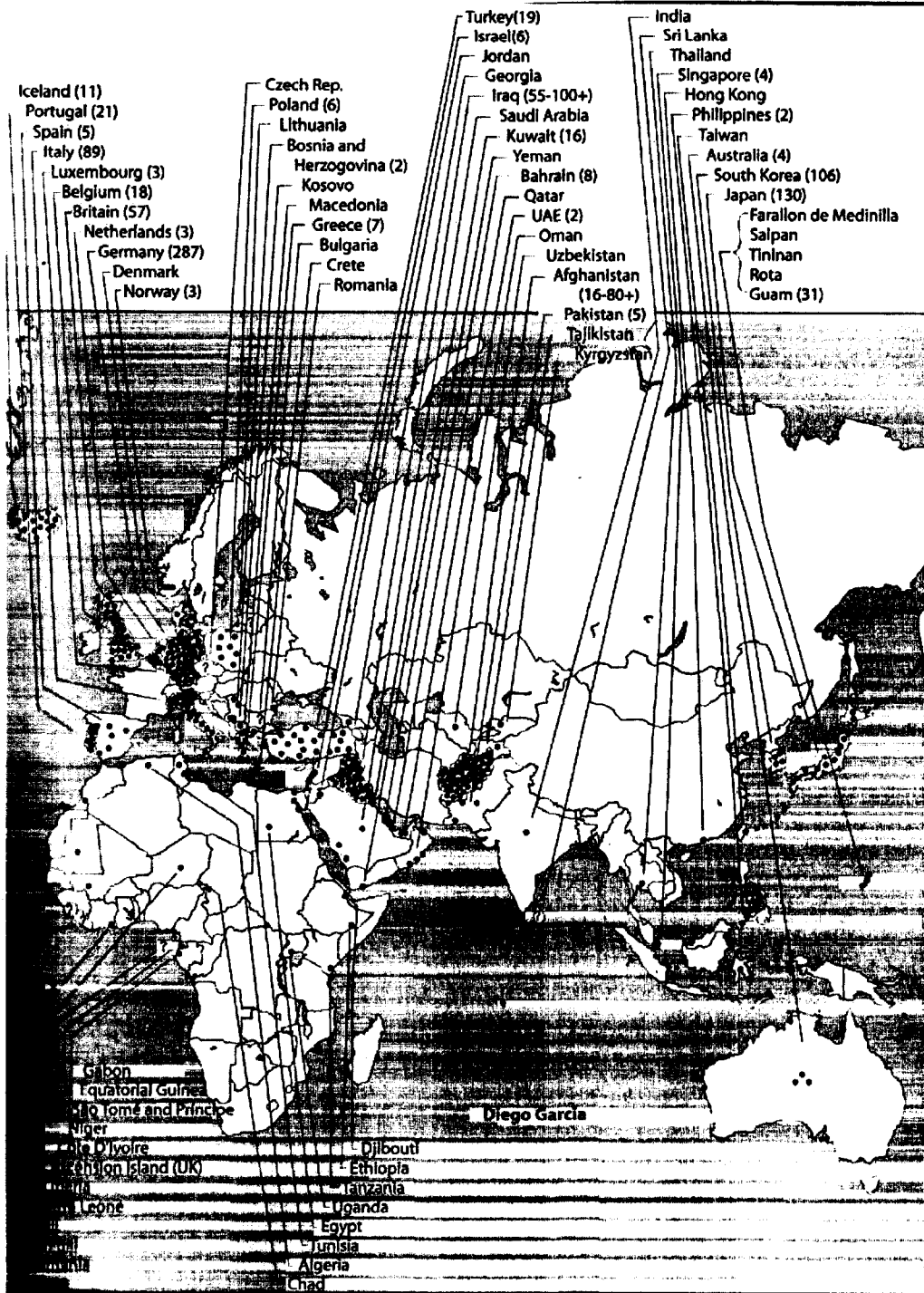


Figure 10: The Global U.S. Military Base Network (2 of 2)



anthology edited by her, *Empire of Bases* (2009a), and publications by Hugh Gusterson, Roberto Gonzales, David Price and others including their contributions to *The Counter-Counterinsurgency Manual* (Network of Concerned Anthropologists 2009). These figures exclude the massive build ups in Iraq and Afghanistan as well as secret or unacknowledged facilities in Pakistan, Israel, Kuwait, the Philippines, etc. Lutz described the many roles the sites fill:

*“While the bases are literally barracks and weapons depots and staging areas for war-making and ship repair facilities and golf courses and basketball courts, they are also political claims, spoils of war, arms sales showrooms, toxic industrial sites, laboratories for cultural (mis)communication, and collections of customers for local bars, shops, and prostitution” (2009a: 4) .*

Vine’s ethnography about the militarization of the island of Diego Garcia, part of the Chagos Archipelago in the isolated center of the Indian Ocean, locates that story within the larger historical context of the global Cold War build up of U.S. military bases. Unlike older European empires that relied on a series of colonies and direct rule over other peoples, the U.S used bases to exert control, influence, and economic domination over weaker nations and build global political and economic power. Although this empire of bases grew rapidly during the Cold War and many scholars focus on militarization of the modern national security state, Vine makes a compelling argument for taking a broader view of U.S. history. He traces the first imperialistic bases back to the forts that allowed the westward expansion of the thirteen North American colonies and the dissolution of Native American societies. By 1853, the U.S. had conquered large parts of Mexico, annexed Texas, the southwest, and Oregon. Next, coaling stations for steamship travel were established on several small pacific islands, Alaska was purchased, and Midway Island, Samoa, and Wake Island were added to the list. After the Spanish-American war, the U.S. claimed the Philippines, Puerto Rico, Guam, and Cuba (as a protectorate). Before World War II, the U.S. intervened in and sometimes occupied

Mexico, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, the Dominican Republic and purchased the Virgin Islands from Denmark (Vine 2009: 47-9).

In 1940, the U.S. arranged to provide Britain with fifty World War I-era destroyers in exchange for U.S. control over a string of air and naval bases in Britain's colonies. The Destroyers for Bases Agreement (followed in 1941 by the expanded Lend-Lease program) allowed the U.S. to acquire 99-year leases and almost complete sovereignty over British bases in the Bahamas, Jamaica, St. Lucia, St. Thomas, Antigua, Aruba-Curacao, Trinidad, and British Guiana and temporary access to bases in Bermuda and Newfoundland (Vine 2009). Deals followed for bases in Greenland, Iceland, the Azores, Mexico, Haiti, Cuba, Suriname, and the Galapagos as well as other small islands in the Pacific and Atlantic. The war saw particularly rapid base construction in the Pacific, as the military conquered and built bases on strings of small islands to battle Japan, devastating the lives of the local peoples living on them. The occupation of the Marshall Islands were part of this process, with Kwajalein becoming the U.S.'s main base in Micronesia during the war and later a major missile-testing site. By the end of the war, the U.S. had built or occupied thousands of bases in the Pacific and was building base facilities globally at an average rate of 112 a month (Vine 2009: 50-1).

Reluctant to give up the hard-won bases after the war, the military wanted to turn the Pacific Basin into an 'American Lake' with an offshore island perimeter that would stretch from the Aleutians, through Japan, and down to the Philippines. The U.S. administration, however, was in the process of breaking up the British and French empires and was sensitive to appearances of colonialism. It opposed outright sovereignty in the Pacific Basin but compromised by turning most of Micronesia and many other Pacific islands into a UN-administered trust (Trust Territory of the Pacific Islands) which allowed the U.S. to establish bases and govern the islands as part of the U.S. Eventually, the military was forced to abandon its ambitious, pan-Pacific 'American Lake' plan and rely on key bases in Japan, Guam, and Hawaii with continued control over the Trust Territory. Globally, the U.S. returned about half of its foreign bases with the end of the war, keeping rights of occupation as a victor in Germany, Italy, Japan, and France and

securing long-term contracts for bases in Greenland, Iceland, and the Azores. Most of the lend-lease bases were kept as well as access to British and French bases in those countries' former colonies (Vine 2009: 51-4).

The U.S. had framed the war as an anticolonial struggle and pledged to assist with decolonization afterward, and the newly formed United Nations enshrined the decolonization process and the right of self-determination. Anthropologist Carole McGranahan wrote that empires did not actually go away in the 1950s era of decolonization, "but went underground, surfacing in guises ranging from socialist empire in the Soviet Union to various forms of neo-imperialist aggressive democracy as in the case of the United States" (quoted in Vine 2009: 54). Despite the fact that both countries soundly rejected accusations of imperialism, the U.S. increasingly used its unchallenged military authority after the war to exert its power through economic markets, international agreements, and foreign bases – all without any official colonies.

After the Soviet Union tested an atomic weapon in 1949, a new version of the containment policy, articulated in National Security Council Report 68, emphasized a militarily offensive position that recommended defending the U.S. and the West at every point on its perimeter. This 'forward strategy' held that offensive military forces should be maintained as close as possible to the USSR, creating a line of defense against expansion and allowing rapid military deployment (Vine 2009: 56-8). The DEW Line was one result of this policy as well being an early iteration of another core Cold War strategy: Mutually Assured Destruction (MAD).

Research into the sociocultural impacts of bases has identified several commonly shared characteristics of militarization. In host countries, bases often lead to the erosion of the sovereignty of the allied state. For example, Canadian sovereignty in the Arctic was a very delicate subject and that country's primary concern when it agreed to construction of the DEW Line. Canada's participation in the DEW Line and other aspects of postwar defense of North America was not a foregone conclusion in the late 1940s.<sup>11</sup>

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<sup>11</sup> Canada had largely ignored financially insolvent Newfoundland until WWII resulted in U.S. bases there and the distinct possibility that Newfoundland would come under American control. This became more likely toward the end of the war when the strategic importance of Newfoundland with respect to an over-

To maintain what control it could, Canada insisted on assuming its share of the construction debt and taking control of the sites once they were built. Realistically, there was little opportunity for Canada to refuse the bases. The bases of empire today are presented, as they have always been, as having rational strategic purposes and providing “forward defense for the homeland” – in the case of the DEW Line, forward defense for the entire North American continent.

Just as the U.S. military looked at Alaskan and Canadian indigenous peoples as a potential cheap labor force in the 1950s, the U.S. also saves money today by training 100,000 soldiers annually in 180 different countries. These U.S.-trained troops further U.S. interests in local conflicts, but they also spare the U.S. from casualties and from bad publicity when human rights abuses occur. These training programs, which may include assassination and torture techniques, can strengthen the power of military forces in relation to other sectors within those countries. From national policy levels to the experiences of individual people, bases in disparate regions around the world create similar scenarios for the inhabitants in countries that live with them.

### ***Bases and Environmental Degradation***

If there is one overarching issue that unites people living near military bases globally, it is the military’s degradation of the environment. There are several reasons that environmental degradation is often presented as the worst impact of bases and becomes the main focus of protest. Debris and contamination are relatively obvious and tangible impacts that are universally accepted as negative - even the military sometimes acknowledges the problem and undertakes remediation. Other aspects of modernization, security, defense, and economics, however, are more complex and often portrayed as positive impacts of globalization. It is not necessarily unpatriotic or anti-military to

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the-pole Soviet attack became apparent. Wartime agreements provided for a thorough evacuation of U.S. defense facilities on Canadian territory at the end of the war, but the U.S. still had bases on Newfoundland in 1949 when the territory became the 10<sup>th</sup> province of Canada. Canada wanted to cooperate with the U.S. on continental defense while protecting its sovereignty, while the U.S. was using its leased bases and sovereign powers that had been negotiated with Great Britain to force Canada’s hand. Canadian officials were strong supporters of NATO since they thought it would reduce American hegemony. Guarantees of territorial sovereignty were included in the 1955 DEW Line treaty, made easier by this “semi-fiction” that Canada was participating in the context of NATO (Caldwell Jr., 1990).

complain about environmental degradation, which makes it (particularly for domestic or colonial/domestic bases) the safest and most comfortable aspect of militarization to protest or discuss in general. Contamination assessments and remediation are addressed through chemistry and environmental science: cold hard data is obtained on which to base complaints. This is largely unlike other, social impacts such as the abuse of women, which is physical, but also psychological and more difficult to quantify. Furthermore, environmental degradation is seen as an impact that can, ideally, be undone or ameliorated. For these reasons, environmental impacts are often the primary focus of protests and often seem to overshadow or trivialize other consequences. Along the DEW Line, the initial understanding of 'impact' is immediately understood as environmental and a moment of reflection usually occurs when the issue of other, social impacts arises. To a great degree, however, an initial focus on environmental degradation legitimates and facilitates the discussion of other impacts: an irrefutable, scientifically proven impact builds a strong platform for and can lend credence to other complaints. This is, of course, only possible in locations where the residents are enfranchised enough to demand environmental tests.

In the years following the end of the Cold War, the U.S. military was restructured and a wave of base closures led to scrutiny of the material damage done to the land, while several U.S. federal departments were forced through the Freedom of Information Act to reveal past records of environmental degradation that had previously been classified for national security reasons. The Department of Defense is decidedly the worst offender of all the federal departments facing this dilemma (Seigel and Center for Public Environmental Oversight 2009; Shulman 1992). Cleanup of the past decades' war by-products and waste is complicated by the fact that the Pentagon, by its own estimates, produced (in the early 1990s) 500,000 tons of toxic waste per year (roughly one ton every minute) (Shulman 1992).

Scientists have discovered significant environmental contamination caused by the most routine military activity, which raises questions about the potential scope of contamination on firing ranges or other testing grounds. Many of those areas have been

written off as ‘national sacrifice zones.’ For example, Congress agreed to finance a \$400 million cleanup for the forty-five square Hawaiian island of Kaho’olawe, long used as a testing ground and bombing range, but the project was abandoned eight years in with only one-tenth of the island cleaned up (McCaffrey 2002b: 178). Incomplete records kept during the decades of the Cold War, the military’s lack of civilian oversight, its penchant for secrecy, and the overarching priority of its ‘national security’ mission exacerbate these environmental problems. Shulman reported that the common military rebuttal to complaints of environmental abuses was: “We’re in the business of protecting the nation, not protecting the environment” (Shulman 1992: 13).

Hazardous wastes are suspected of contaminating more than 20,000 military sites within the U.S., where millions of tons of toxins have fouled hundreds of square miles of soil and polluted air and groundwater in communities (Shulman 1993: 27). The same is undoubtedly true at hundreds of overseas bases, but the extent of overseas military contamination will never be known: Shulman refers to it as a “black box” (1993: 30). A few indications exist: the Air Force has acknowledged contaminating the soil and groundwater at every one of its European airfields. Even before formal investigations, the Army had identified 300 contaminated sites in West Germany. Notwithstanding the military’s acknowledgements of environmental contamination abroad, it usually does not contribute anything towards land remediation. When the U.S. left Clark Air Base in the Philippines, it removed waste containers but refused to disclose information on toxic dumping. Twenty thousand families left homeless by the eruption of Mt. Pinatubo were subsequently relocated to the former installation, only to discover dangerously contaminated land and water. The families have suffered from increasing serious health conditions and premature deaths that experts attribute to the military pollution (McCaffrey 2002a). As is the case with arctic DEW Lines, information the military is missing on the “black box” of contamination can sometimes be obtained from the people who live in the environment. Engineers charged with identifying potential contamination ‘hot spots’ at DEW Line sites have relied in part on the cooperation of Iñupiaq men who worked there.

The U.S. is extremely averse to cleaning up overseas bases for fear that it will set a legal precedent (Shulman 1992), which would open the floodgates to calls for remediation from tens of thousands of sites used by the military since World War II. Despite the fact that the original DEW Line treaty between the U.S. and Canada specified that the U.S. would be responsible for cleanup, the U.S. was largely unwilling to pay for it. After years of negotiations by various departments, the Americans made a financial offer of \$100 million payable over ten years, which Canada eventually accepted despite the fact that the cleanup was going to cost at least \$300 million. However, the Americans insisted that their share of the payments would take the form of annual deposits into the Canadian Foreign Military Sales Trust Account, rather than a direct cash payment. The account is used by the Canadian armed forces to pay for military equipment purchased through the Pentagon.

With her investigation of a local, grassroots protest movement against the U.S. Navy's occupation of large parts of the Puerto Rican island of Vieques, Kathleen McCaffrey put the issue of overseas U.S. military ecological degradation at the center of the study (2002b). In trying to gain an historical sense of Vieques in relation to other military bases, McCaffrey outlines the aftermath of post-Cold War U.S. base closures around the world. In analyzing the conflict between the military and the local residents of Vieques from the latter's point of view, she tells the stories of the Navy's activities on the island since 1940 and of the island's residents making a life for themselves while wedged between a weapons depot and a firing range. As with military bases in Okinawa, South Korea, the Phillipines and other locations, the presence of the Navy depot on Vieques created severe tensions between U.S. security demands and Puerto Rican cultural identity. Vieques locals have challenged U.S. military policy abroad and tens of thousands of residents protested when a stray bomb killed a local civilian employee of the base.

Puerto Ricans are technically American citizens, but by placing the story of Vieques in the global context of militarization McCaffrey sees a "colonial dilemma" brought on by U.S. military subordination of non-U.S. citizens and by extreme

environmental racism. The similarities to the DEW Line are striking: unlike the protocol within the U.S. or with allied countries, the military paid no rent or “permission cost” to access land in Vieques. Neither did the military pay taxes or contribute to the local economy in Vieques that, McCaffrey claims, it impoverished by expropriating its land. Yet the Navy made money off of Vieques, as it rented out the land for practice bombing to foreign militaries.

In Vieques, the Navy advertised the availability of the target range for a wide array of non-conventional and experimental weapons, which traditionally means nuclear, biological, and chemical weapons. More recently, it was revealed that the Navy fired depleted uranium munitions on the Vieques range, which is in violation of federal law and naval policy. Environmental officials have long recognized that the bombing was contaminating Vieques’s coastal and drinking water, but, as mentioned, the U.S. military operates on much looser standards “overseas.” By comparison, the Environmental Protection Agency ordered a halt to live and dummy ammunition firing on military land in Cape Cod, Massachusetts when contamination was discovered in the drinking water in 1997. No such action has been taken on Vieques, even though Vieques is in a better political situation regarding cleanup than are most overseas bases because the island exists within the purview of U.S. law. However, because the EPA lacks enforcement power and the military has been granted far-reaching exemptions from environmental standards, it has been increasingly difficult to enforce environmental laws within the U.S. After years of mounting protest that eventually drew wide attention and support from a large continental U.S. Puerto Rican community (including Hollywood stars), the people of Vieques forced the U.S. Navy to stop bombing practice on the island in 2003.

Activists from Vieques are currently working with and advising militarization protesters from Guam, where the U.S. military has had a long presence with 28 facilities covering a third of the island’s land. According to a General Accounting Office report, workers on Guam’s bases dumped toxic chemicals into the island’s principal aquifers. Representatives of the Guam Landowners Association have presented maps at conferences, one showing the locations of the island’s best fishing grounds, its best



agricultural land, and its best drinking water and another showing identical locations of U.S. bases, installations, and exercises. The military is now planning for a massive expansion of its bases on Guam, increasing its troop numbers there to a level (50,000) that is equal with Guam's indigenous population, the Chamorros.

### ***The Gift Economy of Bases***

One of the primary ways that military bases are “normalized” and accepted is through a “commonly circulating rhetoric that suggests their presence is natural and even gift-like” (Lutz 2009a: 21). The military itself often promotes this aspect (especially when it is proposing to build bases), but many people living next to bases accept as fact the economic benefits. In documenting Inuit recollections of the military in Iqaluit, Melanie Gagnon noted that academic writing in general describes the military presence in the Arctic as having negative impacts on the Inuit. Gagnon believes that this is because researchers' are preoccupied with ‘keeping the natives native,’ and that the construction of a military base and employment of Inuit men threatens that. The Inuit elders with whom Gagnon talked remembered the Americans in Iqaluit positively. The Americans reportedly helped the people significantly and were fun and upbeat (in stark contrast to the Canadian bureaucrats that followed), and environmental degradation is seen as an unfortunate but unintended consequence of their presence (Gagnon and elders 2002). This is a widespread attitude and many Arctic residents, especially elders, do not have anything negative to say about the military. It did become apparent during this research that many people feel ambivalent when explaining problems with the military, if they have any, because they liked and accepted most of the *individual people* who came to live next to their community due to military activity. Many men worked with, hunted with, and were friends with DEW Liners, from whom many learned English. Women dated DEW liners and DEW Liners married local women.

Resistance against the U.S. military by people who live adjacent to domestic/colonial bases is a complex issue. A principle concern in the historical and anthropological study of resistance is the distortion of authentic experience that may occur when authors are too eager to find aspects of human agency in oppressed peoples.

Common criticisms are that scholars are over-romanticizing resistance, simplifying and sanitizing political relationships and dismissing the role of culture. Further criticisms focus on the question of what is occurring within academia and anthropology that may be the actual inspiration for such studies. These well-founded criticisms should be continuously considered in such research but should not dissuade critical Western investigations into the negative impacts of Western power around the globe. Although scholars may periodically err and become guilty of such tendencies, ignoring issues such as the militarization of indigenous land constitutes a much more serious problem in academia.

The culture of militarism penetrates societies near bases more easily than those at a distance from military installations, and the higher rate of enlistment among the populations near bases can limit the range of perceptions about the military. This reflects how economic and social opportunities provided by the military figure prominently in rural social life. The pressure to appear patriotic is high – even if, as along Alaska’s arctic Coast, it is often expressed by variations on the theme: ‘We are lucky – at least we are not Russian, then we would be poor.’ Although specifics of resistance to the DEW Line will be discussed in greater detail in subsequent chapters, an aspect that must be at the forefront of consideration is that, during periods of militarization, local populations have often not been in an appropriate situation to resist anything. Nothing, in fact, about indigenous societies in the Arctic and the impacts of militarization can be understood if the historical context of disease and population decline is ignored. The DEW Line, for example, was constructed in the final stage of a long era – beginning in the mid-1880s when whalers and traders had arrived - in which diseases and alcohol had decimated coastal populations. In the 1950s, the principle disease was tuberculosis, but earlier it had been syphilis, small pox, influenza, measles, et cetera. Many settlements had been abandoned, and entire regions were emptied of all their inhabitants. Scholars using the crude figures available have estimated that population of Alaska’s coastal populations had declined at least 50 percent between 1828 and 1890 (eg Jenness 1962: 7). Wendell Oswalt theorized that the personal trauma caused by inconceivably high tuberculosis

rates among the Kuskokwim Eskimos “may well have contributed to the reputation of riverine Eskimos as a docile and phlegmatic people by the 1950s. Reports in earlier years of the century suggest that they had been more assertive and self-confident in the past” (Oswalt 1990: 146).

Among myriad other social issues, a central ‘gift-like’ notion also effectively mutes dissent of military bases. Resistance to the DEW Line, for example, was negated by the fact that the base provided much-needed jobs, a market for native art, and a generally larger economy. Base jobs almost always create an economically driven fear of base closure. The public relations arms of the military purposefully exaggerate the economic benefits of the bases as much more significant and positive than they in fact are, while not exploring or calculating the benefits of alternative uses of the sites (Lutz 2009a). Some military/industry documents concerning the DEW Line present the view that the Iñupiat and Inuvialuit were enriched by the bases. While it is true that in some ways they were, this viewpoint ignores the fact that their traditional land was appropriated away from them to build the bases. As mentioned above, Lutz describes that it is critical that bases are “naturalized or normalized, meaning that they are thought of as unremarkable, inevitable, and legitimate.” (Lutz 2009a: 20-21). As distinctly as DEW Line sites physically stand out along the arctic coast, another feature of bases rings true for them: long-standing bases can “disappear into a normalized background” (Lutz 2009a: 32).

In exploring how the American public supports these U.S. bases, it cannot be assumed that Americans are aware of the bases in the first place. The general public is vaguely informed about arrangements with allied countries such as Japan, Germany, South Korea, and Guam, but is not aware of the extent of the empire of bases. Cynthia Enloe (2009) argues that this information is not necessarily hidden from the public, but that the American public has very little knowledge of or curiosity about U.S. military activity. The public is incurious about the military empire and the military empire depends on people remaining incurious, wrote Enloe. Many Americans hold a few prevalent assumptions and attitudes that allow them to remain incurious, the primary one

being the widespread belief that any U.S. base is of material value to people who live around it - the gift-like perception described above. Many communities and their congressional representatives mount massive campaigns to retain local bases, assuming that the bases' economic benefits outweigh whatever social or environmental damage they may cause (Enloe 2009).

In February 2007, then-President Bush announced that the U.S. was creating a new military command for Africa, to be known as AFRICOM (Africa Command). The Pentagon had originally intended to establish a headquarters on the African continent, but strong protests from both African governments and civil society (with the exception of Liberia) have forced the U.S. to keep Africa Command center in Germany. Anti-AFRICOM activists are concerned that the new command is actually designed to secure oil resources, roll back Chinese economic influences, and fight the war on terror. AFRICOM would place many civilian duties under the jurisdiction of U.S. soldiers and allow the U.S. to continue training and equipping African militaries. An active Ghanaian writer and blogger who goes by the alias Nana Akyea Mensah is a prominent critic of AFRICOM developments. He summarized his perspective on this 'gift':

*"It looks as though, they want to tell us that in addition to the revenue to be accrued from the oil industry, we are also to benefit from the installation of US military bases...this national call for discussions over the economic benefits of a foreign military occupation is no different from a discussion about the economic benefits of slavery to a slave. Yet this is what the US military industrial complex and their local agents are obliging us to engage in, without any shame" (Mensah 2009).*

"Mensah" proposes that Africans should be realistic and view themselves as nothing more than "glorified pawns" in this relationship: "The real question ought to be 'What are the benefits of imperialist global domination to your local economy?'" (ibid).

Reflecting the increasing use of researchers in all aspects of the military, a social science research center is under development at AFRICOM headquarters and researchers

are being recruited to help map the complicated human terrain on the African continent (Vandiver 2009). Environmental anthropologist David Hughes from Rutgers University's Center for African Studies participated in an interview for a position on the AFRICOM team – not because he wanted the job, but because he wanted to learn more about it. Contending that this type of research might immediately endanger his subjects, Hughes and his department have issued a statement vowing that they would not collaborate with the military's efforts in Africa (ibid).

### *The Many Forms of Violence*

An anthropological focus on violence, another fundamental aspect of war and militaries, has been increasing since the mid-1980s and has often evolved into larger militarization research. Researchers have explored how violence is both constituted by and itself constituting cultural and political processes. Many of the recent works on violence can be considered a collective anthropology project that now studies modern political violence as the rule, not the exception, and therefore places it within a cultural, political, social logic.

The definition of violence, however, is misleading because it implies only physical damage. As Nordstrom witnessed, violence of all sorts can set in to motion ongoing cycles of instability and cultural trauma that reconfigure victims and society, shaping reality as people know it (2004). This correlates with the consequences of fear, one of the central aspects of violence. Ethnographies of people who have been subject to chronic fear (i.e. Green 1994) have found that it undermines one's confidence in interpreting the world, that it penetrates social memory, destabilizes social relations, and divides communities. Green called fear "the arbiter of power – invisible, indeterminate, and silent" (Green 1994: 227) and found that a "culture of fear" could be traced back to traumatic colonial invasions. The results of fear, then, are psychological and individual, but they are social and collective as well.

The DEW Line was not itself a war zone and did not result in war's typical 'casualties,' and some may be inclined to conclude that no real violence was involved. Taking broader views of what constitutes political and social violence allows one to

explore more nuanced aspects of violence associated with the DEW Line. Just as psychologists have determined that verbal and emotional abuse can be far more insidious and hurtful than physical abuse, in large part because the victim does not identify the abuse as such, the social and psychological aspects of militarization are more difficult to recognize and define as violence but may have as significant an impact. The Cold War in particular was predicated on the notion that the battlefield was everywhere; each home and family was a defense unit and preparedness for war at all times was critical. This was far more acute on the DEW Line, commonly referred to as the ‘frontline of defense’ and a place where the burden of playing one’s role in the protection of the continent was paramount. This is not meant to imply that little violence existed in the Arctic before modern militarization, but merely to argue that limiting the scope of what is considered violence limits our understandings of events and lives.

Part of the difficulty in this area of research may stem from the paradox, identified by Nordstrom, that even as the study of collective violence increases, there is a paucity of theories on its causes and effects. For example, scholars have hardly discussed whether all violence shares fundamental characteristics. The choices of fieldwork locations for researchers who choose to study conflict are shaped by the researcher’s notion of what constitutes political violence, and traditionally the focus has been on soldiers and the battle. Historically, battlegrounds were separate from civilian life and researchers documented the events on the site. The focus has not been on the rest of the soldiers’ lives, their emotions, their wives and families, nor on the war profiteering that shapes the conflicts in which they are involved. War violence is still widely understood as battles and soldier-on-soldier (or soldier-on-insurgent) violence. Rape and civilian deaths are seen as anomalies despite the fact that ninety percent of the casualties in modern conflicts are civilian. Nordstrom argues that the battleground is now everywhere, but no one is recording the details.

Anthropologist Valentine Daniel used the term ‘anthropography’ instead of ethnography to describe his work in war-torn Sri Lanka. He felt that calling his work ‘ethnography of violence’ would parochialize violence and limit it to a particular people

and place. Not only would limiting the effects of his work to Sri Lanka exculpate people in other places in similar situations of collective violence, but it could lull or “tranquilize” those of us who live “self-congratulatory lives” in places apparently free of such violence. Daniel’s goal was to counter the largely Western conceit, assumed in journalism, government, and academia, which holds that violence is essentially outside the scope of Western civilization (Daniel 1997: 7-9).

### ***Structural Violence and Soft Colonialism***

Joseph Gerson of the American Friends Service Committee argues that “military colonialism brings structural violence” (Gerson 2009):

*“Bases bring insecurity: the loss of self-determination, human rights, and sovereignty. They degrade the culture, values, health, and environment of host nations – and of the United States” (Gerson 2009).*

Gerson explores what he terms the ‘soft’ side of military colonialism, which can be seen as changes in diet, cultural tastes, and markets. The plentiful and inexpensive food on and around the military bases on Okinawa, for example, has changed the health of Okinawans, who used to be the longest living Japanese. The tiny islands of Okinawa arguably rank among the most militarized places on earth, with at least 145 U.S. bases at the height of the Cold War – and 130 military brothels (Enloe 2000). Currently, 38 of Japan’s 105 American military bases are located in Okinawa, where they occupy 11% of the land. Okinawa constitutes only 0.6% of the land area of Japan, but 75% of Japanese land occupied by the U.S. military is in Okinawa prefecture. Okinawans identify themselves as a subjugated indigenous minority and believe that Japan’s refusal to recognize them as such is linked to the imposition of the military’s presence (Akibayashi and Takazato 2009; Yamakawa 2009).

In reflecting on the impacts of the DEW Line, there is plenty of evidence of soft colonialism. However, in regards to food, this is a complex subject. It is not news that processed food is not good for one’s health, and the DEW Lines certainly exacerbated

this form of ‘soft’ colonialism. However, informants for this research project were unanimously positive about the food that came with the DEW Line – in fact it was cited several times as one of the best things about the bases. Families of men who worked at the sites had more food than their neighbors: one informant related that he had so many pork chops in his youth that he can not even eat them anymore. Despite the dubious nutritional qualities of processed food, the Iñupiat are not ones to snub shared tanik food. Any displeasure with DEW Line food seems to stem only from the inability to obtain as much of it as one wanted. One woman said that her entire perception of the DEW Line was positive due to childhood memories concerning her stepfather, who was a DEW Line cook and a nice guy. The significance of this is that, as a child, she was able to regularly obtain ice cream. While recognizing the many negative aspects inherent in the colonial context, it is difficult to construe ice cream for children as a negative impact.

Anthropology graduate student Jack Ferguson, studying the impacts of DEW Line construction in the Mackenzie River region in 1957, expressed particular displeasure at the soft side of colonialism. “The description of this type of employment as ‘imposed’ is not too strong” Ferguson wrote. “The European has created desires for material goods among these people, and these desires can only be resolved by the Eskimo taking every opportunity to earn money” (Ferguson 1957a: 3). Ferguson was quite candid in his correspondence, and wrote that the succession to a wage economy and the dominance of western culture “would be quite satisfactory if the new filled the gap left by the disappearance of the old, but the plain fact is that the Eskimos are offered only a fraction of the incredible volume of European civilization” (Ferguson 1956). He lamented that although the abundance of comic books, cowboy music, and junk jewelry was a sign of a healthy economy, the basic culture was impoverished. “This is the way that ‘hill billies’ are created,” Ferguson complained (ibid).

### *Aestheticization of the Military*

While materialism and junk food are the ‘soft’ hallmarks of colonialism in general, militarization includes its own distinct set of physical and psychological methods for entrenching itself in the psyche of populations. When compared to the situation in the



U.S. today, the fact that Green (1994) was shocked by the “insidious forms of daily life’s militarization” in her study of fear and political violence in Guatemala seems quaint. She noted that camouflage clothing and war toys became seemingly mundane as they circulated throughout society, which normalized the extent to which civilian and military lives were commingled. She did not imagine that camouflage would be ubiquitous in the U.S. and popular with a wide and diverse spectrum of people – no longer just veterans, punk rockers, and peace activists making ironic statements on war. Today, camo wedding cakes and wedding dresses are available, the bride’s dress can be concealing some pink camo lingerie that she could reveal in the couple’s camo-themed bedroom, and the little future soldier can snuggle up in his three-piece camo crib set with a tank-shaped pillow wearing his camo onesie underneath a camo ceiling fan. Military-themed place settings complete with dog tags are among the best selling for children’s birthday parties (fig. 11).

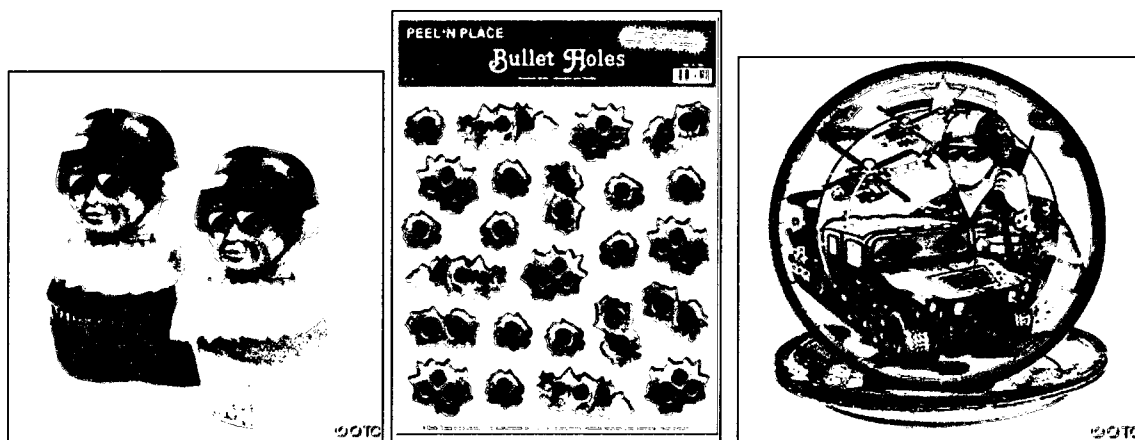


Figure 11: Militaristic Party Settings<sup>12</sup>

Green cited psychologist Ignacio Martin-Baro’s work on “militarization of the mind” in El Salvador (1989; Martin-Barro 1990), which included interviews of 203 children in his analysis of the subjective internalization of war and militarization to understand to what extent they had assimilated the usefulness of violence in solving

<sup>12</sup> Army-shaped cupcake topper candles and plates from <http://www.orientaltrading.com>; Bullet Hole Peel N Place Stickers from <http://www.birthdaydirect.com>.

problems. The study found that the majority thought that the best way to make peace was to eliminate the enemy through violence. Jackie Orr has called this “the militarization of the inner space,” the result of being everywhere surrounded by and thus internalizing what Lutz calls “a permanent state of war readiness”(Gonzales et al. 2009; Lutz 2009a).

Camo chic is in part an example of a method of militarizing the masses known as the aestheticization of the military. This method has been deployed by a number of totalitarian states and goes beyond the militarization of everyday civilian life.

Anthropologist Emiko Ohnuki-Tierney research on kamikaze pilots in Japan included an exploration of how culturally powerful images of cherry blossoms were used to overwhelm the pilots’ philosophical opposition to the war. Ohnuki-Tierney began actively collecting theories that seek to explain how regimes succeed at coercing people to go along with them, even when the regimes are less than cohesive in their militarist agenda and the people do not articulate the state agenda in their minds. Aestheticization, with its vague connotations, is a powerful weapon that leads people to misrecognize the motives behind state strategies and can be crucial in mobilizing people. Textbooks, songs, and theater constituted the Japanese state’s militarization toolkit, but it was a complex, non-uniform, and nonlinear process and these processes are not simply a Japanese problem (Ohnuki-Tierney 2002). A modern correlation exists among the anthropologists working today in the Human Terrain System, many of who are anti-war and for whom the themes of helping people, decreasing casualties, and improving living conditions for Iraqis are common. These themes are very appealing and are explicitly designed to be so. These arguments appeal to a moral sense of justice and convince people to set aside their political objections to the military and the war. Guilt is assuaged and moral outrage is thus co-opted and used as a recruitment tool (Lin 2009).

### ***The Language of Militarization and the Militarization of Discourse***

In 1915, feminist pacifist leader Catherine Marshall argued that applying the woman’s point of view to politics would introduce a new and much needed valuation. Everyone was becoming very accustomed to what she perceived as dehumanizing

euphemisms of the day: men as ‘hands’ in a factory, ‘heads’ to be polled in an election, or – most shocking of all – ‘casualties’ by which to measure military success.

Language reifies the abstract and should be examined, but traditional histories have usually failed to take language seriously as empirical data. McEnaney (1996) suggests that defense discourse framed the Cold War as a menace thrust upon American families and civil defense as a necessary reaction to it, rather than framing it as a product of American interests and a phenomenon of a militaristic citizenry. Language and symbols are also used to normalize the continued presence of the military – i.e. the army is good, it’s here to protect you, and if you don’t cooperate you’ll end up like \_\_\_\_\_ (location-appropriate example such as Nicaragua, Russia, etc.). This is an example of the military using what has been termed “official lies:” simplistic schemes that dichotomize complex social issues into black or white terms (Green 1994: 232-234).

Feminist scholar Carol Cohn spent a year immersed in the world of defense intellectuals after becoming fixated with the question of *how people could think that way*; that is to say, how do defense analyst rationalize and normalize the world of nuclear strategy and defense. Defense intellectuals are usually civilians who formulate plans to deal with the problem of nuclear weapons, including managing the arms race, deterring nuclear war, and planning how to fight a nuclear war. Cohn found an extraordinarily level of abstraction and removal from what she considered reality in the specialized language of nuclear strategic thinking. She learned their language in an attempt to understand what and how they thought, but soon found that her own thinking was changing so that she soon began to wonder how she, or any of us, could think this way. It was impossible not to notice the gendering of both the social relations and language of that community – principally because it was entirely male with the exception of secretaries. Cohn’s own terminology for their language is “technostrategic” to reflect the intertwining of technological and nuclear strategic thinking, and she believes that the “language both reflects and shapes the nature of the American nuclear strategic project” and plays a central role in allowing defense intellectuals to think and act as they do (Cohn 1987: 690).

Cohn found it bizarre that these often nice, likeable men could spend their days calmly discussing all aspects of nuclear war with absolutely no sense of horror or moral outrage. The words they used had no graphic reality behind them: first strikes, re-entry vehicles, counterforce exchange, limited nuclear war, minimum deterrent posture, etc. The language was so bland that the speaker or listener was never forced to voice the realities of nuclear holocaust that they were actually speaking about.

Catherine Marshall had been shocked by the language used to describe death and injury in World War I, yet “casualties” seems like direct terminology compared to today’s common parlance: “collateral damage” (or, as recognized by the American Dialect Society as the most euphemistic phrase for 2007, “human terrain team”). According to Cohn, it was not the words of the defense intellectuals themselves, but more importantly how the language hints at the terrifying way in which the existence of nuclear weapons has distorted our perceptions and redefined the world.

Cohn began her analysis familiar with the aspect of feminist anti-militaristic and, in particular, anti-nuclear criticism that sees much of the arms race as phallic worship and “missile envy.” Cohn was never comfortable with this simplistic interpretation and expected that her analysis would be more complex. She was naturally still curious about any sexual subtext in the technostrategic discourse, imagining that these men would have been made sensitive to feminist criticism of their overtly sexual language and might refrain from using it in public, but she found that no feminist critiques had ever caught their attention. Upon diving into that world and language – even while familiar with and actively seeking to move beyond the easy sexual analysis – she was not prepared for what she found. Though shocked and in disbelief at how graphically sexual the language was, Cohn concluded that the significance of that language is less obvious but more important than its transparent imagery. The language and imagery originate in a broader cultural context that suffuses the defense industry with overtones of masculine sexuality, but it also functions within the nuclear industry to minimize the seriousness of their work by making it intimate. Pat the missile, Cohn wrote, and its lethality disappears (1987).

I perused a 1957 publication on the Distant Early Warning Line (Morenus 1957) with casual interest in whether much there would stand out to a feminist-curious analysis. The first few pages described a nuclear attack scenario and, if summarized by selecting a few words, a technostrategic and homoerotic poem leaped from the pages with lines such as: “*Insured – direct contact – tensely alert – swallowed – sense of vital expectancy – dominated*” (see appendix # for complete poem).

### ***The Militarization of Gender***

The research of militarized language indicates that gender and sexuality are ripe areas for anthropological research on U.S. militarism. The numerous and diverse issues surrounding gender and militarization are highly complex, global in nature, and largely ignored. The range of issues is impressive: at one end of the spectrum there is widespread rape as a weapon or by-product of war, while at the other end one encounters ‘feminist militarism.’ Most military histories are written as though women are invisible, or they portray women’s roles as human interest stories. However, militaries certainly need women (as prostitutes, as faithful and patriotic military wives, as employees of defense contractors, as patriotic mothers, as feminist civilians lobbying for the rights of women to serve in the military, as embedded social scientists, as troops and officers, etc.) and they also need to inculcate certain ideas about femininity. Moreover, women and ideas of femininity are not alone in being manipulated by militarization: the extent to which common images of masculinity have been manufactured by militarization is significant (1993; Enloe 2000).

Anthropologists, feminists, and anti-militarists have made use of each other’s work over the past century to such an extent that each discipline has shaped and been shaped by the others in turn. Scholars and movements have merged anthropological methods or findings into feminist anti-militarist works or have used feminist critiques to inform anthropological studies on U.S. militarism. The intersection of these fields has created what can be seen as a new genre of research; one that not only scrutinizes and exposes the sociopolitical processes and consequences of modern militarization but also

actively seeks to direct those findings towards critiquing and deconstructing dominant western ideas of rationality and concepts of reason.

This genre has an established foundation – in addition to the work by feminist pacifists such as Catherine Marshall, the writings of Virginia Woolf have been very influential. In particular, in her 1938 work, *Three Guineas*, Woolf wrote that the institutions and cultural centers of democracy have the causal roots of war insinuated in them. She described the masculinization of civilian services and warned that women in higher education, law and medicine could serve to make women complicit in militarization if they were uncritical of masculine norms of hierarchy and competitiveness (Woolf 1952).

The militarization of masculinity is not a new phenomenon: it has been driven for several centuries by both domestic and international processes. As an example, many men are uncomfortable admitting that they want to avoid military service as they fear it will be perceived as a lack of masculinity. For recruiters to keep their numbers up, military policy makers must control notions of gender, and states invest a great deal more energy and money into developing ideas of masculinity and femininity than most people realize (Enloe 2000: 235-236). Recruitment is aimed at marginalized groups and emphasis is put on ‘manliness’ and ‘first class citizenship.’ How the men of colonized societies experienced militarized standards of manhood or how their experiences shaped later political movements are issues that merit further research.

According to Enloe, feminists have discovered that if they do not explicitly examine the role of militarism in a number of various issues and conflicts, then not only are issues of masculine privilege left untouched, but a holistic understanding of the situation is missed. Enloe found that many feminists in developing countries are convinced that militarization is the concept that best shows how power is used to distort gender relations (Enloe 1993: 68). This is not just the domain of female feminists, as evidenced by British peace activist and male feminist C.K. Ogden who co-wrote a pamphlet (and manuscript) at the height of World War I entitled *Militarism vs Feminism: an enquiry and a policy demonstrating that militarism involves the subjugation of*

women. Ogden's later book, *Fecundity and Militarization*, was a "protest against the view of women as breeding machines," a phenomenon that Ogden claimed made an inevitable appearance under wartime conditions. Emiko Ohnuki-Tierney (2002) explored this same trend in World War II in Japan, noting that femininity was defined as a woman's capacity to "reproduce and multiply" and raise sons to be good soldiers. Ogden, a great early champion of birth control, wrote that war and the fear of war had kept women in "perpetual subjection, making her chief duty to exhaust all her faculties in the ceaseless production of children that nations might have the warriors needed for aggression or defense" (quoted in Kamaster 1987: 57).

Ogden took on the role of an active armchair anthropologist, using ethnographies and other colonial reports to explore militarism throughout history, the conditions of women in numerous unindustrialized societies, and the assumptions within which western ethnographers and colonial administrators framed their analyses. He consistently found more evidence for his main thesis: the more militaristic the society, the lower the status of women. "Militarism has been the curse of women, as women, from the first dawn of social life," he wrote, and "in war man alone rules: when war is over man does not surrender his privileges" (quoted in Kamaster 1987: 56).

A different example of the gendered aspects of militarization is what Gusterson (1999c) labels 'feminist militarism:' women viewing female success in the military and national security agencies from a pro-feminist, pro-militarist standpoint. Gusterson feels that this trend has the potential to reshape feminism as much as the military. Feminist militarism poses a dilemma for feminists, among whom essentialists (as described above) have traditionally viewed the military as associated with masculinity and violence. Despite the issues of masculinity and patriarchy, women have become indispensable to the military. The argument that there is an equation between full-status citizenship and service, traditionally used to describe ethnic minorities in the military, has been extended to women; if they are to become fully equal citizens, they must participate as equals in the military. Pro-military feminists promote this view but Gusterson cites feminist Francine D'Amico to counter it. D'Amico argued that we should see "the expanded

participation of women as a symptom of the militarization of society, not as evidence of women's achievement of 'equality,'" (Gusterson 1999c). Although women in the military first appeared to pose a setback to male military culture, Gusterson found that the modern national security state has parlayed it into a further strengthening of military institutions.

The effort to repeal 'Don't Ask Don't Tell' is a similar phenomenon, as the proponents of rescinding it base their arguments on the notion that the military would be strengthened. Despite the disproportional number of discharges for enlisted lesbians versus homosexual men, a pro-military lesbian feminist movement is evidenced in part by the "Great Military Themed Lesbian Books" list on Amazon.

Femininity is being redefined elsewhere by woman who actively resist militarization. In Chiapas, indigenous women who have repelled military invasions have put themselves at greater risk, but they are also part of a coordinated effort of indigenous organizations in Mexico that involves local cultural forms to contest top-down nationalism and the militarization of their homeland. Lynn Stephen (2000) claims that these women are redefining indigenous femininity by providing an important counter-trope to the inherited colonial image and that this further strengthens them. Orin Starn (1999) noted that for a brief moment in Peru, women's participation in the village 'rondas' (defense teams) seemed to have the potential to transform gender relations. Feminist geographer Joni Seager (1993), studying the organization by local communities to expose and then force the military to clean up toxic pollution on and around military bases, has found that the leaders are most often women. The women, many of whom refer to themselves as "just ordinary housewives," have also managed to avoid the common tendency towards centralization in their organizations, thus resisting the common militarizing temptation to which many groups confronting the military succumb. Seager charted their organizing and found that these women-led groups have persisted and sustained authentically grassroots connections, despite the fact that they are often held in contempt by local military base commanders for their alleged naïveté and "hysteria" (ibid).



At the other end of the spectrum from empowered clean up groups and feminist militarists is a much larger group of women: military prostitutes. Unlike women *in* the military, military prostitutes appear to be as old as militaries and have been seen by military leaders at times as a resource and at times as a threat. Calculations about prostitution have shaped foreign policies and international alliances: colonization required guns and the militarization of women's relationships to men. Different policies have dealt with sexually transmitted diseases and class and race (i.e. different brothels for white and black male soldiers in Vietnam), but Enloe sees the constant issue as how to keep soldiers satisfied while not jeopardizing military efficiency (Enloe 2000).

Prostitution had become a significant industry in Vietnam by 1972, before the U.S. military withdrawal. Between 300,000 and 500,000 Vietnamese women worked in the sex trade, and an estimated four-fifths had venereal disease (Enloe 2000: 67). In Vietnam, the Philippines and Thailand, as in many parts of the world, brothels for the military laid the foundations for the development of brothels for male tourists. Research done by anthropologist Katherine H.S. Moon (1997) investigated the 'GI towns' that accompany most of the U.S.'s 106 military bases in South Korea. The GI towns have been controlled by both the Korean and U.S. militaries, each for their own reasons. At some, each prostitute had a number and was required to have weekly examinations. Addressing racial tensions between U.S. soldiers, U.S. and South Korean policy makers focused on another part of the system they could control: stricter regulation of prostitutes to ensure equal distribution between black and white soldiers. The ramifications of overseas military prostitution can be seen in the U.S. as well: many Korean women marry G.I.s, but they have a 70% divorce rate once they are in the U.S. In the red light districts of U.S. military towns and in entrepreneurial brothels in suburban areas, many divorced Korean women are working as prostitutes (Enloe 2000).

In South Korea, large, nationwide and numerous ongoing campaigns to protest the 106 U.S. bases in that country have focused on holding the military accountable for violence against women and other crimes, environmental cleanup, and on resisting the construction of new bases. A new focus of attention is on South Korea's treasured and

famous Jeju Island, known as “Island of Peace” or “Island of the Gods.” The island is at the crossroads for the Malaka Strait where 80% of China’s oil from the Middle East is transported. The base, scheduled to begin construction in late 2009 but experiencing delays in part due to domestic and international opposition, is officially a Korean naval base but is largely seen as a U.S.-instigated project and would include U.S.-manufactured missile defense systems. In the past, Jeju Island’s deep-sea pearl diving women have played a large role in the island’s reputation. Now, protestors are claiming that construction of the naval base will endanger the marine environment surrounding the island, meaning that former and potential pearl divers may end up looking to the military base for employment.

### *Economies and Myths of War*

Anthropologists have also put their holistic methods to work investigating how economies actually function, and recent anthropological research into the economic aspects of war has contributed significantly to our understandings of global processes. In particular, Carolyn Nordstrom has used her extensive fieldwork experiences to examine the frontline intersections of war in the midst of vast political systems and to outline the economic realities behind conflict. The terms Nordstrom uses to describe the global processes of trade that pass across boundaries of legality and illegality are “shadow networks” and “extra-state” exchange systems – terms that she invented herself since these perspectives are ignored by traditional economists. Any movement to expose the significance of the shadow networks is risky since these economies rival those of certain states and popular conceptions of power and autonomy could be damaged. Nonetheless, it is clearly impossible to understand the true nature of economic and political reality if only formal economic and political tools are used to assess the world (Nordstrom 2004: 225-233, 237).

Nordstrom found that the modern state is acutely dependent on warzone profits. Those profit systems may be officially invisible and under-reported, but they are in no way accidental. The shadow networks have several core features: they are governed by social principles and codes and can constitute cultures, besides creating economic

possibilities and brokering political power; they are by definition international and are formalized, integrated, and rule-bound; and they are non-formal, which differs from the reference to small-scale, low-income and low-tech that is implied by ‘informal.’

Nordstrom’s research led to the conclusion that the non-formal, grass-roots war economy that connects small-scale survival economies can produce large fortunes and direct the fate of wars (Nordstrom 2004: 106-109).

If and when analysts, policy makers and the general public address these shadow economies, they posit them as peripheral to the world’s economy. The popular core-periphery theory leads to assumptions that the ‘core’ occurs in cosmopolitan centers. In fact, shadow economies are central to the world’s economy – they are supported by governing institutions when it is politically or militarily expedient to do so and are eventually embedded into everyday functioning. The money made in ‘peripheral’ wars is critical and even central to the economic system that supports the core (Nordstrom 2004: 114-117, 236).

Even when these non-formal, extra-state networks comprise 90% of a country’s economy (as Nordstrom discovered was the case in war-torn Angola), economists gather very little data about them and general fail to discuss them. This is largely due to the fact that classical economic theory does not have the capacity to deal with systems that do not translate into formal organizational structures. Ethnographic studies of economists and development professionals reveal that there is no terminology for “shadow economies” and no empirical methodology for researching them, thus there is no mention of them in most major economic texts. This practicality means that trillions of dollars are omitted from what economists study and that many development policies fail because they are constructed on faulty data assumptions (ibid). The formal texts of the military and the economy deal only tangentially if at all with the extra-state networks that are central to war.

Though this type of shadow economy was not a significant factor in Cold War arctic militarization, the benefit of employing this type of analysis is that it makes it clear that using only political and economic tools would not provide a realistic assessment of

the DEW Line's political and economic impacts, much less its social and environmental legacies. Data that illustrates the larger issue of the U.S.'s permanent war-based economy is, unlike shadow economies, official, largely available, and quantifiable. Scholars have estimated that the U.S. spends more than \$100 billion each year on foreign bases (Bennis 2008). The country spends more than 58 percent (\$1.2 trillion) of its discretionary budget on the military - more than it spends on education, environmental protection, transportation, veterans benefits, housing, job training, agriculture, energy and economic development combined (Gonzales, et al. 2009; Lutz 2009a).

A common assumption, perpetuated by diplomacy and military science, is that war and peace are brokered at the formal level by state leaders. This perception perpetuates notions of the primacy of the state and the powerlessness of the masses. If the public sees itself as incapable of waging war or making peace by themselves, the state is seen as essential to survival and people believe they would be worse off without it no matter the extent of the atrocities. Ethnographic observation, however, has proved otherwise: people with arms do destroy societies, but it is people without arms who can rebuild it (Nordstrom 2004: 177-178).

Nordstrom's research indicates that power is far more contested than is generally acknowledged. Theories of power would not hold up on the front lines of a war, based as they are on direct links between the source and the implementation of power. Human actors insert chaos into power equations, and power is reformulated on the ground level before it moves into action. The theories do not explain why individual soldiers pull the trigger nor are they complex enough to account for the entangled roles in people's lives. Academic theories aren't the only oversimplified ones; as he strapped on his pistol before crossing into Kuwait, a Marine Corps lieutenant told war correspondent Chris Hedges: "Just remember that none of these boys is fighting for home, for the flag, for all that crap the politicians feed the public. They are fighting for each other, just for each other" (Hedges 2002: 38).

The ultimate irony of power is that politicians and military leaders either accept responsibility for whatever happens on the ground or risk the appearance that they are

not in control and don't actually represent power (Nordstrom 2004). A third option, that cannot be ignored, is that they falsify information about what happens on the ground so that it does not appear that things are out of control. Vagts (1959) recounted that after the Austrian campaign of 1849, officers admitted that the General Staff history caused accidental engagements to appear well planned in advance and that many great battle plans had been written after the battles. After his 'anthropography' in Sri Lanka, Daniel (1997) concluded that *especially* during periods of violence and conflict, the politically dominant institution does not have full control of the master narrative. More recently, U.S. military leaders falsified reports to hide the fact that football star and Army Ranger Pat Tillman was killed by friendly fire in Afghanistan.

The truths of war have little in common with the myths that sustain war, Nordstrom found, and she argues that the truth violates our sensibilities. The offense is not in the truth as much as it is the speaking of things that people cannot accept, which is why images of war conveyed by mainstream media and some literature are largely devoid of unacceptable truths. Patrick Regan (1994) argues that there is no identifiable group 'out there' manipulating myths to control us, but that U.S. society itself creates, advocates, and perpetuates myths that are necessary components of the militarization of society.

Vagts found that "in the process of militarizing minds, no small role has been played by writers of military history" (1959). In a 1958 postscript to his 1939 history of militarism, he noted that both British and U.S. generals largely renounced their role as history writers after World War II and instead agreed to let civilian professional historians author the histories of the war. He found that this did not result in a civilianization of war history, but in a militarization of civilian writers who were more cautious about including every battle detail than showing the war in a larger context of general history.

War correspondent and author Chris Hedges spent most of his adult life amid violent conflicts around the world and offers important insights into the culture of war. The central premise of *War is a Force that Gives Us Meaning* (Hedges 2002) is that war

forms its own lethally addictive culture. Hedges claims that in wartime a country's authentic and humane culture is subversive, and the warring state first destroys its own culture – largely through the media and schools – before destroying the opponent's. The cultivation of victimhood is essential to the warring state, and the goal of nationalist rhetoric is to make pity their own and perceive that what they hold sacred is threatened. Most societies, he asserts, never recover (Hedges 2002).

Hedges credits combat with provided feelings like love and fulfillment to people who have suffered from loneliness and isolation. Myths, however, are harder to maintain on the frontline of war. Hedges uses psychologist Lawrence Leshan's ideas of "mythic reality" versus "sensory reality" to describe life in combat. In sensory reality we see things for what they really are, and in combat most people soon find it impossible to maintain any mythic perception of war. Nor, Hedges notes, would they live long if they did. When the mask of war slips away and the myth is exposed as fraud, people commonly sink into despair so deep that they welcome death (Hedges 2002).

Hedges also maintains that once a war has lost its mythic stature for the public, it is doomed to failure. In mythic wars, events are imbued with meanings they do not have: defeats are seen as steps to victory, the enemy is dehumanized, and we view ourselves as the embodiment of ultimate goodness (Hedges 2002). Force is the only solution when mythic reality is allowed to rule, the press and the state are the chief disseminators of the myth (mythic war reporting boosts sales), and the power of the myth is that "it allows us to make sense of violence and death." By mythologizing history we see random events as a preordained chain of events leading to greatness (Hedges 2002).

Hedges (2002) recounts that nationalist triumphalism is a phenomenon that he encountered in every country he has worked in. There is little that logic, fact, or truth can do to change it, and only after the myth implodes (though it is never truly conquered) can the motives and actions of the state be questioned. Meantime, daily wartime episodes are central to the myth, blending into entertainment and rendering the trivial and commonplace into high moral drama. At first, according to Hedges, war feels like love and fulfillment to many people who have suffered from loneliness and isolation: an

attraction we must acknowledge to combat. Myths, however, are harder to maintain on the frontline of war. Hedges (2002) uses psychologist Lawrence Leshan's ideas of "mythic reality" versus "sensory reality" to describe life in combat. In sensory reality we see things for what they really are, and in combat most people soon find it impossible to maintain any mythic perception of war. Nor, Hedges notes, would they live long if they did. When the mask of war slips away and the myth is exposed as fraud, people commonly sink into despair so deep that they welcome death (Hedges 2002).

### ***Going to the source: anthropology of the military***

As part of understanding the larger effects of militarization, several significant anthropological investigations have elucidated the culture of security institutions themselves and their effects on society in the U.S. and elsewhere (Ben-Ari 1997; Ben-Ari 1998; Ben-Ari and Fruhstuck 2003; Katz 1990; Simons 1997; Winslow 1997). Studies of military wives seem particularly popular. Pamela Frese and Margaret Harrell co-edited *Anthropology and the United States Military: Coming of Age in the Twenty-first Century* (2003) with the goal of augmenting the dearth of ethnographies examining military units or military communities. Frese's contribution (2003) gave a detailed cultural analysis of home, family, kinship, and community based on her participant observation in a military retirement community and the life histories of wives of high-ranking officers living there. Frese found that diversity in terms of race, ethnicity, and class were subsumed under the creation of fictive, kinship-like relationships. The wives were active guardians for these complicated kinship ties that, according to Frese, underlie the "reproduction of a gendered hegemonic structure wherever the U.S. military can be found" (Frese 2003: 65).

John P. Hawkins (2001) discovered that an orientation to violent combat pervaded the entire army, despite the fact that a minority of soldiers were actually combat troops. Focusing on an enclave military community in Germany, Hawkins found that under the circumstances of constant preparation for armed conflict, the martial values of conflict

were generalized to the whole military institution.<sup>13</sup> Hawkins explained that many soldiers lived on post with their families and expected community and domestic lives consistent with civilian U.S. values, yet found the military intruding into their personal lives in the name of military readiness. The soldiers and families were under constant surveillance and scrutiny by military personnel (Hawkins 2001).

These findings may not be particularly surprising, but they are interesting in relation to the experiences of many small communities dominated by a military presence. In southern Mexico, social work conducted by the army results in small indigenous communities adjusting to large numbers of young military men in their midst on a daily basis. This “social work” approach is emphasized at the School of the Americas<sup>14</sup> in Fort Benning, Georgia, where a significant number of South American army commanders are trained. The indigenous populations internalize the surveillance as a constant violation, silence and self-censorship are integrated into people’s lives, and the fear of far worse abuse at the hands of the military is ever-present (Green 1994).

Anna Simons (2003) describes the predicaments of successful and unsuccessful military advisors, comparing the temptation to envision oneself as a warrior-king or to “go native” with that of anthropologists in the field. Military advisors spend long periods of time in the field, have to figure out how to establish rapport, and are confronted by a host of cross-cultural communication challenges. They have a relationship with the locals predicated on asymmetry and thus live with a dualism between ambiguity and power. Their advisory relationship is like any other exchange: members on both sides must feel they are benefiting. The more culturally and politically aware advisors are entering a situation; the better they are able to react. Simons did find that military advisors working with people who actually shared the same goals had far greater success, but, as with T. E. Lawrence, this is not a requirement. Lawrence and other successful advisors *did* steep themselves in local politics and tried to see things through the natives’ eyes, instead of

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<sup>13</sup> In my opinion, Hawkins was either cautious or limiting his scope, because those martial values are regularly broadcast to the general public, not just to the military institution where one would expect them.

<sup>14</sup> The name of the School of the Americas was changed in 2001 as part of the National Defense Authorization Act. It is now the Western Hemisphere Institute for Security Cooperation.



simply assessing the situation militarily. Successful advisors were able to develop empathy without developing sympathy, and they engaged with people at the grassroots.

Robert Rubenstein (2003) is one anthropologist who criticizes anthropology's distrust of military institutions and argues that failing to engage armies from the inside is a significant loss for the discipline. Rubenstein, an academic political anthropologist, was invited by the military to help determine what cultural sensitivities could be involved with new peacekeeping missions. Not only do national militaries vary, but different organizational cultures are represented within the military of a single nation, and of course individuals have a broad range of motivations for choosing to join (in countries without obligatory military service). Anthropologists have faced several special challenges when studying defense communities, including stark funding limitations, having to adapt traditional methods in order to research a diverse, dispersed, and transient population, and dealing with stigmatization and restrictions due to the suspicion with which anthropologists view the defense community. Rubenstein argues that there is far more variation in military communities than most people realize, and that critical commentaries on them that seem uninformed or unconnected are easily dismissed by the defense community.

### *Nuclearism and the National Security State*

Nuclear technology has shaped overall modern militarization to a large extent, and research into the cultural aspects of the nuclear age illuminates the world views that gave birth to the strategy of mutually assured destruction and its components, including the DEW Line. Lutz uses the notion of an era's "mode of warfare" to draw attention beyond the weapons and strategies to the wider social features related to a type of war making, and 'nuclearism' is the mode that emerged with the end of World War II. Mass industrial warfare, by contrast, emerged with industrial capitalism in the 19<sup>th</sup> century and involved large armies and many workers producing tens of thousands of relatively simple weapons. This mode of warfare, used in World Wars I and II, helped shape labor geographies and gender/race/class structures in the warring societies. Nuclearism involved a transformation of the perception of danger and new social relations related to

the weapons' manufacture. Nuclearism meant smaller armies and fewer workers, an increase in the importance of predominantly white and male scientific and engineering labor, and a tendency for military jobs to move away from unionized areas and African American populations. Expanded codes of secrecy, Lutz found, fundamentally deformed norms of democratic citizenship. Nuclearism also destroyed the practical distinction between soldiers and civilians. Tilly (1985) made the point that the power of a government with nuclear weapons is greatly strengthened against its own people, who are forced into a more uneven bargain with their states since they must trust them with their own future as well as that of the human race. Under nuclearism, sometimes called "imaginary war" as it is more scenario than battle, the nation's survival depends on subsuming internal conflicts to the demands of national unity. Although Cold War nuclearism resulted in environmental damage from testing and bases and led to hundreds of proxy wars in which approximately ten million people died, historical depictions often extol the "blessings" of nuclear weapons since they were never exchanged (Lutz 2002: 728).

The Cold War also fostered the common perception that nuclear weapons are *most* dangerous in the hands of third world countries. Almost all the nuclear weapons designers Gusterson (1999a) interviewed thought that it was more likely that a 'third world' country, rather than the U.S. or Russia, would use a nuclear weapon. In *Nuclear Weapons and the Other in the Western Imagination*, Gusterson describes that, as institutions, the labs used distinctly colonial terminology to argue for post-Cold War weapons research. The widespread perception is that nuclear weapons are fine among the five official nuclear nations but that proliferation, especially to Islamic countries, would be enormously dangerous. Gusterson understands this as Geertz saw other orthodoxies: as so much a part of our common sense that can usually be stated as fact without fear of contradiction. Anthropological studies on risk have found that shared fears often reveal as much about the identities of the fearful as about any actual dangers.

This entrenched discourse on nuclear proliferation, Gusterson claims, has played an important role in structuring the developing world, and our relation to it, in the

western imagination. India, Israel, and Pakistan have refused to sign the Nuclear Nonproliferation Treaty (NPT) because it enshrines a system of global “nuclear apartheid.” Since the end of the Cold War and the various conflicts with ‘rogue states,’ the NPT has been increasingly legitimated in racialized terms. Horizontal nuclear proliferation to other countries is viewed negatively, while vertical proliferation and the development of new and improved weapons is not seen as a problem. “The dominant discourse that stabilizes this system of nuclear apartheid in Western ideology is a specialized variant within a broader system of colonial and postcolonial discourse that takes as its essentialist premise a profound Otherness separating Third World from Western countries” (Gusterson 1999a: 114). The blatantly racist orientalism of colonialism has been replaced by more subtle orientalist ideologies apparent in economic discourse, in the imagery of popular magazines like *National Geographic*, and, as Gusterson describes, in U.S. national security discourse. This discourse fits the four characteristics that define an ideology: it makes the political structures of dominant groups appear natural; it presents the interests of elites as if they were universally shared; it obscures the connections between different social and political antagonisms so as to inhibit massive binary situation (by effacing continuity between poor countries’ nuclear deprivation and their other systematic patterns of deprivation to inhibit a massive north-south confrontation); and it legitimates domination. Gusterson also examines four Western arguments against horizontal proliferation and demonstrates that each one is ideological, orientalist, and could as easily be reversed to delegitimize Western nuclear weapons; the Third World is too poor; their nuclear deterrence will be destabilizing; they lack technical maturity; they lack political maturity.

Edward Said noted that the fear of a Muslim holy war was one cornerstone of orientalist ideology; Islamic countries would only seek the bomb out of despotic vanity or religious fanaticism – never for security. Said also found that once a group had been orientalized, virtually anything could be written or said about them without being challenged. Gusterson cites Western commentators who distrust India with the bomb since India was purported to name its bombs after gods and war heroes. This was not true

of India, but the U.S. has nuclear weapons named Thor, Poseidon, Jupiter, Pershing, Polaris, and Minuteman. Gusterson deems that the western proliferation discourse's use of images and metaphors that represent Third World nations as criminals, women, and children may be read as hints about our own psychology: "troubling parts of ourselves that have mysteriously surfaced in our distorted representations of the Other" (1999a: 129). These metaphors also assimilate the relationship between the West and the Third World to other hierarchies of dominance within Western culture: police over criminals, men over women, adults over children – the Third World nations, according to this scheme, have their proper place at the bottom of a global order.

The cultural "fallout" during the five years following the atomic bombing of Hiroshima and Nagasaki - the early years of nuclearism which shaped the entire era - is the focus of historian Paul Boyer's *By the Bomb's Early Light* (1985). Boyer suggests that we have seriously underestimated how profoundly the nuclear reality has affected American thought and culture. So fully has the Bomb pervaded our consciousness, he claims, that it is as though it is built into the very structure of our mind, giving shape and meaning to all our perceptions.

The weeks and months after the bombings were a time of 'cultural crisis' when Americans confronted a new reality of almost unfathomable proportion. The immediate response was confusion and disorientation. The subsequent world-government movement was one manifestation of the new fear, as was an interlude when atomic scientists were looked to as gurus who would lead the world out of darkness. Nuclear testing in the Pacific led to the gradual realization of the extent of the seriousness of the ecological damage and potential impacts on future generations, while fantasies of a "techno-atomic utopia" became common (Boyer 1985: 109). As mentioned above, the bomb led to claims of a tragic one-sidedness of man's knowledge and calls for the social sciences to receive the same level of attention as physics had been given in order to guide society. By 1950, however, familiarity and a dull acquiescence had set in: the bomb had come to stay, the potential of the peaceful atom provided great hope, and responsibilities for guiding us could be left to the church and State. The era of civil defense was ushered

in by all manners of experts who tried to convince the American public that the atomic threat was not as bad as it had been presented and hysteria was uncalled for (Boyer 1985: 319-333). Although virtually accepting the inevitability of a nuclear conflict, the American conscience was pacified into accepting that war had been converted to genocide.

Several recent social histories that investigate American society during the Cold War illustrate the ramifications of nuclearism and the particulars of fighting against a political philosophy that could infiltrate any institution and undermine the “American way of life.” Stephen J. Whitfield (1996) focused on the anti-Communism movement’s super-patriotism, intolerance, and suspicion and Elaine Tyler May (1988) drew connections between sexism and the internal dynamics of the American home whose distinction from the battlefield, as noted by Lutz, was increasingly blurred by the physical and psychological effects of militarism. The postwar citizen was a civilian-soldier whose most important relationship was with his family.

In her urban anthropological history, *Homefront: A military city and the American 20<sup>th</sup> century* (2001), Lutz relates the larger chronicle of American twentieth century war and peace and tries to explain the experiences of Fayetteville, North Carolina, in light of those national processes. Adjacent to and largely overshadowed by Fort Bragg, the story of Fayetteville addresses how people live with what becomes battle’s other – “the home front” – and war’s shadow – “readiness” (Lutz 2001). Lutz explains the use of anthropological methods to expose these processes since much of the history and reality of war has been made invisible to people inside and outside the military by simplified histories and propaganda, secrecy laws, or the difficulty assessing many consequences of war because so many of them are not obviously war-related. These reasons alone, Lutz argues, aptly demonstrate why we have not fully evaluated the true costs of being a country ever ready for battle. Neither is there a universal set of measurable ‘military values’ since cultural forms have intersected with and remade society’s military institutions. Beyond employing anthropological methods to understand how culture and political economies come to shape people’s view of war and employing

history to show how things have not always been as we see them now, Lutz engages in cultural critique to ask whether we are not all military dependents, what America would be like today if the elites who opt for war had made other choices, and whether it is truly possible for us to now imagine another way.

The efforts that have succeeded in building a massive peacetime army in the U.S. began gaining power before World War I, but Lutz argues that the wealthy elites were threatened as much by social forces at home as by the battle in Europe. The “preparedness movement” was usually framed as a response to the war in Europe, but the upper classes and industrial capitalists were intimidated by the labor movement as well as the racial tensions amid the massive influx of immigrant societies in American cities. Business elites desired a more docile labor force at home as well as new markets overseas, and a larger military would help create both. But while the national myths would lead us to believe that wars overseas were thrust upon the U.S. and that it was only our patriotism that motivated us to play a part, Lutz explains how the American city and homes were transformed into home fronts by war much earlier – namely by the massive war of the European colonists claiming the New World and subjugating the Native Americans, and by racial violence that experienced its most famous outbreak with the Civil War but in truth has occupied our nation for most of its history.

A solid foundation had been laid, then, by the time that World War I prompted a conscription crusade led by the nation’s wealthiest men, who claimed that the country was dangerously isolationist and materially unprepared for a new international military role. Lutz’s scrutiny of that movement shows that conscription was designed to “revitalize and protect America through the inculcation of military values” (2001: 33) and that those benefits were seen more in domestic than military terms. Military conscription would, its proponents argued, restore harmony and order to society, solve the problem of American manhood gone soft, and “Americanize” the mass of new immigrants. President Wilson said that the draft was not “a conscription of the unwilling” but “rather, a selection from a nation that has volunteered in mass” (Lutz 2001: 34).

Traditional representations have largely overlooked and distorted movements in the U.S. against militarism and the military. Lutz points out that simply by referring to the years of peace and demilitarization from 1919 to 1939 as the “inter-war” years, the past has been labeled in ways that make certain outcomes seem inevitable. In fact, forces that wanted to avoid foreign conflicts aligned with those who wanted a fiscally conservative central government after the war, and Congress had public backing to reject the Army’s proposed half-million-man peacetime force. Lutz argues that the public was no longer convinced they needed a great army to be a great nation, and those who had actually fought in the war were also less enamored by militarism. Anti-war literature and art were exceptionally popular during this era and they were inspired in large part by a strong feminist movement, but demilitarization owed as much to conservatives worrying about domestic issues and unilateralists who wanted to avoid alliances.

The Great Depression only reinforced America’s disillusionment with war and military institutions. Many people saw their economic problems directly related to the war debt and economic disturbance, and congressional hearings in the 1930s investigated ties between the military, the War Department, and major arms manufactures. This occurred in the atmosphere of larger questioning about the militarization of American society that was happening in churches, on college campuses, and among socialists and labor organizers as well as conservatives. Despite this widespread awareness that collusion between the arms industry and the state was undesirable, people also realized that preventing it was unlikely. Militarization did soon return, largely via the projects and demands of New Deal programs (Lutz 2001).

The strong anti-militarist sentiments did not die with World War II but were successfully “reinterpreted” in its historical rewriting (Lutz 2001: 44). In fact, most Americans passionately wanted massive demobilization when the war ended and, especially with the horrors of the Holocaust and atomic bombing of Japan, came to see war itself – not other nations – as the enemy. Demobilization and demilitarization was reversed with the beginning of the Cold War, arms race, and above all the National Security Act of 1947. Lutz refers to the National Security Act as a “revolutionary rupture

in the American form of government” because it eroded the rule of law in deciding whether to go to war, but the national security state also had the significant social impact of installing a “military definition of the situation” (2001: 84-85).

The civil defense establishment, as described by Laura McEnaney in *Civil Defense Begins at Home: militarization meets everyday life in the fifties* (2000), had effectively privatized nuclear protection and formulated a national policy that demanded individuals take personal responsibility and patriotically build their own nuclear fallout shelters. Private families making a consumer purchase could safeguard the values of family and home and be doing the cultural work of the Cold War. Most Americans failed to heed the government’s demands, implying a resistance to militarism. The more complex truth reached by McEnaney is that Americans *did* support the government’s militaristic policies but repudiated a level of militarism that required them to finance their own security, and that they refused to have a constant physical reminder of nuclear war at home.

The private institution of the family had to be shaped to fit the military demands of the national security state, ideally complete with a non-employed mother-homemaker as second in command, fulfilling their tasks for others’ sakes under the dynamic leadership of the decision-maker husband. Thus defense planners promoted policies that domesticated civil defense programs by constructing them as home and family issues, but they further feminized it by including voluntary women’s organizations into its planning and depicting as “women’s work” the myriad post-attack services such as first-aid, mass feeding, family reunification, and psychological support of frightened kin (McEnaney 1996). This process was facilitated by the fact that it depended on conventional gender role arrangements and *not* on the radical notions of independent women workers that labor shortages during World War II had required.

Returning to the aestheticization of the military, examples of militarism in American entertainment are innumerable (the films *An Officer and A Gentleman*, the *Rambo* series, *Top Gun*, and Tom Clancy techno-thrillers are among the most discussed), but some are more noteworthy than others. Robert Heinlein’s famous work of science



fiction, *Starship Troopers* (1982 [1959]) won the Hugo Award for Best Novel in 1960, helped create a new genre of literature known as military science fiction, is required reading in the U.S. Marine Corps, and provides crucial insights into modern U.S. militarism.

Heinlein wrote *Starship Troopers* to drum up support for the U.S. nuclear testing program and the book outlines a marine-like boot camp experience, criticizes communism, and enshrines militaristic values (Heinlein 1982; Panshin 1968). The novel is set in our future world after the current geopolitical system has collapsed due to its naïve civilian leadership that, among other lapses, had outlawed corporal punishment. The future world can solve any moral problem since it operates on a “scientifically verifiable theory of morals” rooted in the individual instinct to survive, extolling “self-interest, love of family, duty to country, [and] responsibility towards the human race.” The future world’s great heroes pledged to *buy* liberty with their lives: “Liberty is *never* unalienable; it must be redeemed regularly with the blood of patriots or it *always* vanishes” (Heinlein 1982: 96).

Veterans run Heinlein’s imaginary future world, in which they have banned “bleedin’, profiteering, black-market, double-time-for-overtime, army-dodging, unprintable civilians” from governance. War and moral perfection derive from the same genetic inheritance. Laced throughout with quotes from the Bible, *Starship Troopers* dismisses typical anti-violence arguments by “heap[ing] scorn” on an “inexcusably silly idea...the historically untrue - and thoroughly immoral doctrine - that violence never settles anything.” Readers learn the moral difference between soldier and citizen: the soldier accepts personal responsibility for the safety of his nation, while the citizen does not (Heinlein 1982: 24). The protagonist will never know what he is made of unless he joins, and after he swears in he “at least” realizes that he is no longer a civilian, with his “shirttail out and nothing on [his] mind” (Heinlein 1982: 28-30). When he is eventually out on leave he is shocked by how complex and “unbelievably untidy” civilian life is, “filled with all manner of unnecessary things (and not a weapon among them)” (Heinlein

1982: 99). Of young civilian men, the recruit finds them “long-haired and sloppy and kind of dirty-looking” (Heinlein 1982: 101).

Only the combat corps were worthy - all other assignments were “booby prizes” for “button pushers or professors” (ibid: 32, 35). Conveniently, the enemies in Heinlein’s novel aren’t human (they’re big alien bugs), making it a simple matter to objectify them as pure evil. Death, since it is an expected part of their trade, is exalted and ceremonious.

By the end of the book, the battle-tested infantryman has decided to go career. “The M.I. was mine and I was theirs...my gang, I belonged. They were all the family I had left; they were the brothers I had never had... If I left them, I’d be lost” (ibid: 129). His father, who had strongly resisted his son joining the military, finally joined himself, admitting that civilian life was meaningless and that “at least half of my anger at you was sheer resentment...that you had actually done something that I knew, buried deep in my heart, I should have done.” A woman, of course, had held him back; his wife’s death “released” him for what he had to do and prove that he was a man.

Many of the same issues exalted in *Starship Troopers* are treated in *The New American Militarism: How Americans are Seduced by War*, by West Point graduate, Vietnam veteran, and historian Andrew Bacevich (2005). A self-described political and social conservative, Bacevich argued that misleading and dangerous conceptions of war, soldiers, and military institutions have come to pervade the American consciousness and have perverted U.S. national security policy. His history traces the roots of the new American militarism and “military metaphysics” – a tendency to see international problems as military problems and to discount the likelihood of finding solutions except through force – as a reaction to the 1960s and especially Vietnam (Bacevich 2005: 2-6).

One of the many manifestations of the new American militarism Bacevich described is the boost in status of military institutions and soldiers, involving public enthusiasm for high-tech weaponry that encourages people to see war as something to be experienced vicariously. Since the end of the Cold War, public opinion polls have found ever-increasing confidence in the military alongside decreasing confidence in the executive branch, Congress, the media, and organized religion. This confidence has

found further expression in a tendency to elevate the soldier to the status of national icon, the “apotheosis of all that is great and good about contemporary America” (ibid: 23). A most unfortunate phenomenon, according to Bacevich, is that soldiers tend to concur with this evaluation of their moral superiority. A 2003 survey of military personnel found that two-thirds of those surveyed think that military members have higher moral standards than the nation they serve. Bacevich quoted senior officers who are uncomfortable with the fact that “the armed forces are no longer representative of the people they serve” and that “more and more enlisted as well as officers are beginning to feel that they are special, better than the society they serve” (ibid: 24).

Bacevich contends that despite the widespread public esteem, the U.S. military does not actually wield more influence in policy; their imagined supremacy merely results in higher expectations and miscalculations. Bacevich noted that members of the Bush administration professed to hold soldiers in high regard, but they had little patience with those who advice caution or restraint. He quoted Michael Mann’s observation: “the notion of civilian control of the military became meaningless, since civilians were the leading militarists” (ibid: 63). In my opinion, Bacevich on this point ignores that the combined influence of the military industrial complex has long been recognized as the true nexus of control, not the military by itself.

An important chapter in Bacevich’s work traces in great detail the ideologies and leading minds behind neoconservatism: a “counterrevolution” or “insurgency” mounted by “contrarian intellectuals” against the New Leftists and national anti-military sentiment at the end of the Vietnam War. “What rules the world is ideas, because ideas define the way reality is perceived” observed Irving Kristol, an early neocon leader who also thinks that neoconservatism is best understood not as a political movement or school of thought but as a “persuasion” (ibid: 70). Bacevich saw the essence of neoconservative aspirations as simple: “to fuse American power to American principles, ensuring the survival of those principles and subsequently their propagation to the benefit of all humanity” (ibid: 71). He also saw its legacy as fostering the climate necessary for the emergence of the new American militarism. The drastic ramifications of overextending the U.S. military,

combined with American profligacy and political apathy, is the subject treated by Bacevich in his most recent work: *The Limits of Power: the End of American Exceptionalism* (Bacevich 2009).

Chalmers Johnson is a retired professor of political science and economics, a former “Cold Warrior,” and a historian of American militarism. He is the husband of anthropologist Sheila K. Johnson, and the two are, respectively, president and editor of the Japan Policy Research Institute. Johnson has published a trilogy on American militarism and its ramifications: *Blowback: The Costs and Consequences of American Empire* 2000, *The Sorrows of Empire: Militarism, Secrecy, and the End of the Republic* (2004); and *Nemesis: The Last Days of the American Republic* (2008). Nemesis, Johnson points out, was the Greek goddess of vengeance who went after people who had become too arrogant and lost all prudence. Johnson traces the histories of military dictatorships and imperialist empires, concluding that in order for the U.S. to maintain democracy it must forego its empire. Defining U.S. military hegemony as an empire is important, according to Johnson; military enclaves in lieu of actual colonies simply constitute a new form of empire. He sees it as denial or hypocrisy to not think of the U.S. as imperialistic since, other than referring to our overseas holdings as ‘forward bases,’ we fulfill all the definitions of imperialism. Johnson reports that U.S. militarism is state-sponsored socialism that is costing the country three-quarters of a trillion dollars every year, contributing to the U.S.’s deficit – the largest in modern economic history – and threatening the country with bankruptcy. He claims that “[o]ur militarism is turning the U.S. into a pariah nation” (2005: 13) and putting an end to globalization.

Another important aspect of U.S. militarism is the increasing influence of conservative evangelical Christianity in the military. Hugh Gusterson has found a kind of counterpart to Islamic fundamentalism among many nuclear weapons scientists, many of whom believe that Christ would have bombed Hiroshima and that nuclear weapons are part of God’s plan to end the world before the Day of Judgement (Gusterson 2004). Bacevich reports that conservative evangelicals abandoned their skepticism about the morality of force after the 1960s and, largely inspired by devotion to Israel, have

articulated a “highly permissive interpretation of the just war tradition” (2005: 123). Beyond supporting the use of force, many evangelicals looked to the military as an important player in saving America from what they perceive as internal moral collapse and perdition. Militant evangelicals gave religious sanction to the militarization of U.S. policy and imbued military activism with an aura of moral legitimacy. Especially during the Cold War fight against atheist communism, evangelical leaders like Billy Graham led evangelical Christians to engage with and try to transform the world. Evangelical scholars have outlined a “crusade theory of warfare” for a world engaged in a “death struggle” in which preventative war has biblical precedents (Bacevich 2005: 132). While much of this seemed radical pre-9/11, Bacevich notes these evangelical militants were simply ahead of their time.

Evangelical militants see U.S. national security needs dovetailing with or indistinguishable from the accomplishment of Christ’s saving mission at the end of time, and Israel is at the point of convergence as both nation-state and fulfillment of biblical prophesy. Underlying millions of conservative Christians’ obsession with Israel is the doctrine of premillennial dispensationalism, a theology that interprets scripture as foretelling the horrific sequence of events leading to the last days, when the Antichrist rises but is destroyed at Armageddon, and Christ returns to ring in a thousand years of peace. The overt alliance between evangelicals and the GOP finds its truest expression in strong support for Star Wars – by evangelical thinking the only moral nuclear policy and a powerful symbol of deliverance by which the nation will reclaim and reshape its destiny. Paralleling that overt alliance is the tacit alliance between evangelicals and the armed services, facilitated by the Vietnam War and welcomed by the military due to evangelicals’ unfaltering support. Evangelicals see the military as an enclave of virtue and members of the armed forces, feeling themselves to be prime targets in the culture war, saw the evangelicals as allies. After Vietnam, politics in the officer corps swung to the right and transformed its religious stance; now evangelicals enjoy a privileged place at U.S. military posts and many officers see Christian fundamentalism as the hidden hand that changed the military for the better (Bacevich 2005). Bacevich concludes that were it

not for the support of tens of millions of evangelicals, militarism in the U.S. becomes inconceivable.

Countering this movement, Mikey Weinstein, an Air Force veteran and former White House lawyer who defended Ronald Reagan during the Iran-Contra affair, created the Military Religious Freedom Foundation (Cooperman 2006) and is suing the Air Force in federal court demanding permanent injunction against alleged religious favoritism and proselytizing in the service. Weinstein contends that there is a concerted effort by evangelical Christian organizations to treat the armed forces as a mission field, ripe for conversions. Muslims, Jews, and other religious minorities (including non-fundamentalist Christians) in the armed forces are regularly mocked and subject to taunts and derisions because they are not Christian or the correct type of Christian. One of the groups his accusations target is the Officers' Christian Fellowship, a private organization with 14,000 active duty members on more than 200 U.S. military bases. The Officers' Christian Fellowship mission statement describes the group's goal as "a spiritually transformed military, with ambassadors for Christ in uniform, empowered by the Holy Spirit" (Cooperman 2006: F1). The foundation has 18 active cases at Fort Hood, site of the recent mass murder by a Muslim army psychologist, involving soldiers who allege they have been subjected to non-stop fundamentalist Christian proselytization. The foundation has over 15,000 cases worldwide, including lawsuits against the Air Force, the Pentagon, and the Department of Defense.

### ***Globalized Resistance to U.S. Militarization***

The U.S. military has been welcomed by local populations in many parts of the world and has served to increase security in some locations. However, as the military predicted, the struggles of indigenous and other suppressed peoples against militarization has gone global. Though this resistance has usually been met head on with increased U.S. militarism, technology is allowing more people in more places to connect and share resources and in recent years an organized international movement has taken shape. Initially, local resistance movements, many already active for years, began gaining

greater support within their regions at various conferences and forums. The Okinawan Women Against Military Violence, for example, was an outgrowth of the participation of 71 Okinawan women at the United Nation's Fourth World Conference on Women convened in Beijing, China, in 1995. The Okinawa Women's group based their position on a section of the Platform for Action, approved at the UN conference, which states: "Rape that takes place in a situation of armed conflict constitutes both a war crime and a crime against humanity." The group has conducted a signature campaign, engaged in a 12-day sit-in demonstration, issued their appeals to Japanese leaders, and received wide support from women throughout Japan.

Another organization resisting the U.S. military is the Chamoru Cultural Development and Research Institute, which promotes and provides assistance to native Chamoru cultural programs that empower Guam's indigenous people<sup>15</sup>. As mentioned above, an extensive military build up (\$15 billion increase, bringing as many as 50,000 people) is currently planned to further transform the tiny island of Guam into a major hub for U.S. military operations in the Pacific. Whereas bases cover 29 percent of the island's total land now, that amount may grow to or surpass 40 percent after the build up. The build up is due to the fact that the U.S. made a bilateral agreement with Japan, in large part due to mass protests in Okinawa against the military presence there, to transfer U.S. marines from Okinawa to Guam.

Anti-globalization and anti-militarization organizations have emerged on every continent. The idea for an international group first took flight at the 2004 World Social Forum in India and grew to include hundreds of campaigners in dozens of countries. In 2007, some 400 activists from 40 countries came together for a conference in Ecuador to officially launch the International Network for the Abolition of Foreign Military Bases, which goes by 'No-Bases Network.' Despite the inclusive nature of the organization's title, 95 percent of foreign bases in the world are U.S. and thus comprise the main focus

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<sup>15</sup> Chamoru civil rights attorney Julian Aguon is a key leader of this resistance. Aguon has three books detailing the colonial history and present of Guam and Micronesia: *Just Left of the Setting Sun* (2006a), *The Fire this Time: Essays on Life Under US Occupation* (2006b); and *What We Bury at Night: Disposable Humanity* (2008).

of the Network, although the approximately 200 European military facilities around the globe are seen as equally destructive. Also significant is that Hawaiian organizations participate in resisting the “foreign” U.S. bases on their homeland. The No-Bases Network exists to share information, act in solidarity with front lines campaigns that are currently struggling to prevent new bases or close existing ones, collaborate in strategizing to abolish foreign military bases and support local and regional struggles for justice and reparations. Besides an active email list, one sign of the movement’s exploitation of modern communication systems is a No-Bases Youtube channel with about 60 videos on campaigns against foreign military bases.

The American Friends Service Committee and 16 co-sponsoring organizations (including the No-Bases Network) have spearheaded a ‘National Project on Foreign Military Bases.’ In 2008, the Project organized a “Security Without Empire: U.S. National Organizing Conference on Military Bases” conference, which was co-sponsored and hosted by American University’s Anthropology Department. Participants, many from host nations, requested that the event be held on native people’s land, and Eastern Shawnee elders accepted. The participants brought water from their homelands and held a ceremony in which they spoke of the violent events in their communities and poured the water into one bowl as a symbol of shared opposition to militarism and visions of a sustainable future based on everyday security.

The Resist AFRICOM movement is another significant organization that is largely based in the U.S. and is focused on educating U.S. citizens on why and how to protest AFRICOM. Its main supporters are the Africa Faith and Justice Network, the Institute for Policy Studies, Friends of the Congo, Africa Action, TransAfrica Forum, and the American Friends Service Committee.

### ***Significance for Arctic Militarization Studies***

The discussion in this chapter has illustrated both the larger historical context in which arctic militarization occurred and the anthropological and related research that informs this current study on the DEW Line. With these wide views established, the focus can be narrowed down to the specific manifestations of the Cold War in the



western Arctic – a focus that includes not only the build up of bases in Alaska but an exploration of the distinct relationship between Alaskan anthropology and the military.

With the extensive spread of military activities and impacts on untold numbers of indigenous peoples around the globe, the significance of any small region's story can appear minimal. This is not unrelated to the way the people whose lives are affected have often seen the situation. George Agnasagga from the North Slope explained the circumstances the following way, though people from any number of militarized sites worldwide could have said the same thing: "No one has complained, I guess they just don't know who to complain to." "...[T]he only ones who would be complaining would be us villagers and who is going to listen to us? What voice do we have?" (Agnasagga, Sep. 13, 2009, Wainwright).

As societies – and particularly the United States – debate questions of the ultimate value of a military empire, an initial step will be the widespread recognition that each of these stories is of great significance, and that the narrative that construes them as nothing more than necessary damage done in the name of national security does so, via one of its fundamental official lies, out of interest in the survival of its own hegemony. As Eric Wolf described, this narrative has denied the existence of the histories of people caught up in its global whitewash. Furthermore, the profligate history of the enfranchised few has been directly proportional to and dependent on the suppression of those that the military industrial complex deemed expendable or beneficial as laborers. Now, the world is dependent on them for histories and perspectives that could inform and guide a demilitarization process.

**Chapter Three: From Hinterland to Defense State:  
Pre-DEW Line Machinations in Alaska Territory  
and Canada's western Arctic**

***Introduction***

As Arctic military activity must be seen within the context of the global empire of bases, the DEW Line in the western Arctic must also be understood in light of the particular regional and historical circumstances that surrounded it and shaped its impacts on local populations. The major socioeconomic and political forces affecting the region during the decades leading up to the DEW Line include the collapse of the fur market (and other impacts associated with the Great Depression), World War II and the early Cold War build up. In Alaska Territory, exploration of the Naval Petroleum Reserve Number Four was a significant event that led to the construction of the Naval Arctic Research Laboratory and economic opportunities with the military that lured the last Barrow-area reindeer herders into town.

Ethnographies, particularly those focusing on acculturation, are the obvious sources for details and insights into the social situation of the indigenous peoples during this time of transition. An interesting inconsistency exists among those works: several of the anthropologists researching and writing in Alaska during the period from the late 1930s through the 1960s described grave impacts for indigenous northerners from the war and military bases, which caused fundamental shifts in economies and social relations. However, several other important works in Alaskan anthropology from that era barely mention the military. Several potential reasons for these differences include personal research interests and long-standing connections between anthropologists and the military in Alaska.

In Canada's western Arctic, the arrival of military industrialization coincided with a major shift in governmental attention on the North and a concerted effort to Canadianize the Inuvialuit. Government reports from the Mackenzie River delta area,

including Ferguson's on the DEW Line, illustrate how the construction of the DEW Line forced northern officials to attempt implementation of its new philosophies while working with U.S.-led corporations and entrenched racism within their own institutions.

### ***Indigenous Militarism***

Although they have often been portrayed as such (e.g. Oswalt [1979] 1999 ), pre-contact Iñupiat and Inuvialuit were not ignorant of war. Ernest Burch (2005) investigated traditional Iñupiaq organization in Northwest Alaskan *nunagatigiitch* (nations) and the patterns of war and trade between these separate socioterritorial units. Members of the different nations identified themselves and associated with their own nations, which had differing taboos. People saw themselves as distinct and superior to their neighbors, and though intra-national murder (*inuuaq*) was bad, the killing of a foreigner (*tuqut*) whether for avenge or during war was accepted (Burch 2005).

On the North Slope, the Tikirarmiut of Point Hope are recognized as the most warrior-like group in the region. VanStone recounts that Point Hope once controlled the territory from Kotzebue Sound north to Icy Cape and eastward as far as Deviation Peak, slightly northwest of Kiana on the Kobuk River. In the latter part of the 18<sup>th</sup> century, Noatak people began encroaching and soon occupied the southern part of the Point Hope domain as far north as Kivalina. A great land and sea battle between the two groups is said to have taken place one summer about the year 1880, just below Cape Seppings. The Point Hope people were badly defeated, forced to withdraw from that entire part of the country, lost most of their good hunters and subsequently suffered from famine. VanStone found that such wars have assumed an almost legendary character in the minds of Point Hoppers (1961: 16-17).

An elder in Wainwright informed me that if I really wanted to see some war debris, that there was a spot south of Icy Cape on the spit near an old sod house where there is a pile of skulls with holes in them from the spears of Point Hoppers. Another story relates that, in about 1880, a group of Point Hope warriors traveled all the way to Barter Island with the plan to cut the people living there off from the mainland and starve them out. The Point Hoppers occupied the mainland across the narrow gap from the island, and

they waited and waited. The people relating this story took obvious pleasure in the outcome – the Point Hoppers did not know that the Kaktovik people had nets and were fishing on the ocean side (the meaning of *Qaaqtugvik* is “seining place”), so while the peaceful Kaktovik people ate well the Point Hope warriors starved to death. The elders recounting this story indicated that they had no idea if it was true, but that it sure was a good one.

Sammy Lennie of Inuvik also described the Mackenzie River delta region as historically “militarized” in a particularly gruesome fashion. A large battle between the Inuvialuit and the Gwich’in took place during winter on the frozen Mackenzie near Kittigaaryuit, and the Inuvialuit victors decided to dissuade further intruders by standing the frozen bodies of slain Gwich’in in a line across the river. Sammy Lennie recalls finding skulls and broken bones in the bushes around this area (April 3, 2009).

Most accounts of the Iñuit, however, have ignored raids and conflicts that occurred between regional groups and have emphasized the people’s cooperative nature. In *Never in Anger* (1970), Jean Briggs noted aspects of Iñuit culture that are relevant to possible reactions to militarization. Briggs found that although power struggles and interpersonal conflicts were common, the Iñuit placed high value on non-confrontational behavior and sacrifice for the sake of harmonious community relations. Robert Spencer (1959) similarly noted this tendency toward cooperation rather than competition in Iñupiaq society. Military scientists also recognized and took advantage of the cooperative nature of Iñupiaq culture, as described below in connection with the Arctic Aeromedical Laboratory.

European and U.S. military activity in the Arctic is not a recent phenomenon. Naval interest in arctic Alaska goes back as far as the history of the U.S. Navy, and much of the exploration of the Arctic slope was conducted by U.S. Navy officers and explorers supported by the Navy. Still earlier, ships and men of the British Navy explored the coast and environment. Historical accounts of Alaska usually emphasize the close civilian-military bond in Alaska and describe the population as a frontier community growing up around a military outpost, each dependent on the other. Promoting the purchase of the

territory, Secretary of State William Seward argued: "If we would provide an adequate defense for the United States, we must have...Alaska to dominate the North Pacific." After the U.S. purchase of Alaska in 1867, the Army occupied and administered six posts in the territory for a decade before withdrawing and leaving all governance in the hands of U.S. Navy and U.S. Revenue Service. The Organic Act of 1884 provided Alaska with district status, a civil and judicial system, and a civilian governor. With the gold rush of 1898, the military returned to the territory and erected a dozen garrisons, five of which lasted through World War I. By 1924, only one garrison remained: Chilkoot Barracks in Haines. At the Navy's request, the Geological Survey carried out exploratory geologic studies in PET 4 for four years, 1923-1926, but from 1926 to the start of World War II there was very little military interest in Alaska. Arctic exploration, on the other hand, continued after the decline of commercial whaling and the region was undergoing significant transformations due to the increasing influences of missionaries, the fur trade, and territorial schools.

### ***World War II and the Cold War build up***

Richard Gordon wondered what it must have been like for his granddad when he was growing up and someone came to his door, handed him a rifle and told him to put his seal oil light out at night so as not to attract spies. He thinks his grandfather must have been totally confused and a bit fearful. Gordon is emphatic that nothing was known about war in the aboriginal lifestyle: "We knew nothing about what w-a-r meant. [] Somebody tells you a bushman is coming for you... We didn't know we had a part in this whole thing." But then, he imagined, there you are, sitting in the dark worrying about some big sasquatch out there. "Spy!" he whispered, "Watch out for the bushman, like the boogie man, going to get you" (R. Gordon, July 24, 2008, Herschel Island, Yukon Territory).

The impacts of World War II were experienced even in some of the most remote areas of the world. Due to the war, Alaska Territory was no longer remote, especially once the Japanese bombed Dutch Harbor invaded and occupied the Aleutian islands of Attu and Kiska. The battle for the Aleutians, the fear of another Japanese invasion, and the realization that the Nazi army was just over the North Pole transformed Alaska. Bases

were constructed at breakneck speed, but the head of the Alaska Defense Command wanted a full-time and paid territorial guard to defend airports, military radio and weather posts and other assets across the region. Governor Ernest Gruening eventually got authorization to establish the 761<sup>st</sup> Military Police Battalion, an all-volunteer territorial militia volunteer limited to 'home defense:' preventing enemy espionage and sabotage in areas without combat troops. Major Marvin Marston, after visiting St. Lawrence Island and learning of a pre-war Japanese naval landing and reconnaissance mission there, had been working on his own to organize an Eskimo guerilla force to defend the Bering Sea coast. In 1942, Gruening and Marston visited western Alaska Yupik and Iñupiaq villages, where almost every single man enlisted to join the Alaska Territorial Guard (Hendricks 1985) (fig.s 12, 13, 14, and 15).

General 'Muktuk'<sup>16</sup> Marston's account of the Alaska Territorial Guard (ATG) indicates that in many Native villages, many female residents and even octogenarians also volunteered for the "Tundra Army" to defend the entire Alaskan coastline from Japanese attack. Marston (1972) believed that the organization of Alaska Natives into Territorial Guard Units began to breakdown the control that exploiters had long held over them. He contended that the ATG in Alaska resulted in challenges to institutionalized racism in the state. Not only was it the first time a governor had visited the "Eskimo Empire,' but "indeed, it was the first time in history that these natives were regarded as bona fide citizens" (Marston 1972: 58). Marston credited the ATG's influence in the passage of the Nondiscrimination Act of 1945, the creation of the Alaska Federation of Natives, and eventual land claims. "As a result of the War, the natives were organized and aware of all local and national affairs. Many were for the first time exercising their right of franchise" (Marston 1972: 140).

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<sup>16</sup> Marvin Marston earned this nickname via his tendency to eat more maktak than anyone else.



**Figure 12: Alaska Territorial Guard Patch and ATG Soldier at Barrow, Alaska<sup>17</sup>**

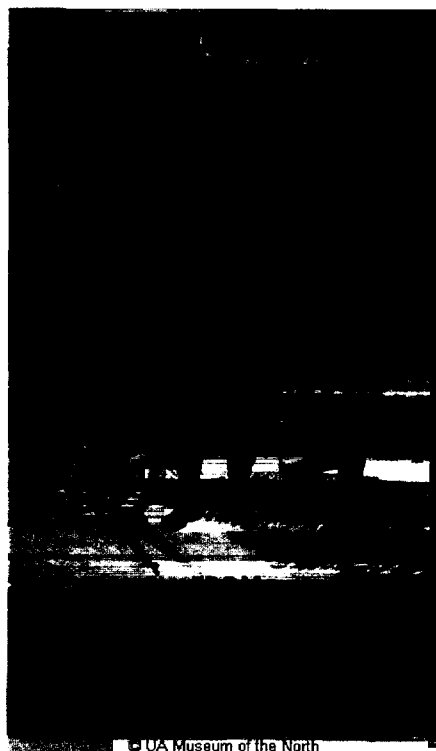


**Figure 13: Major Muktuk Marston Signs up Soldiers<sup>18</sup>**

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<sup>17</sup> Images courtesy of [http://www.alaskool.org/projects/ak\\_military/paintinglist.htm](http://www.alaskool.org/projects/ak_military/paintinglist.htm)

<sup>18</sup> Painting by Henry Varnum Poor depicting recruitment for the ATG on Little Diomed Island. Image courtesy of [http://www.alaskool.org/projects/ak\\_military/paintinglist.htm](http://www.alaskool.org/projects/ak_military/paintinglist.htm)



**Figure 14: ATG poster by ATG lieutenant and painter Rusty Heurlin<sup>19</sup>**



**Figure 15: General Marston establishing ATG members in Barrow, Alaska.<sup>20</sup>**

<sup>19</sup> Image courtesy of [http://www.alaskool.org/projects/ak\\_military/paintinglist.htm](http://www.alaskool.org/projects/ak_military/paintinglist.htm)

<sup>20</sup> Image courtesy of [http://www.alaskool.org/projects/ak\\_military/paintinglist.htm](http://www.alaskool.org/projects/ak_military/paintinglist.htm)



Themselves very pleased with Marston's distribution of free 1917 Enston rifles and ammunition, Iñupiat and Yupik skills as marksmen became legendary during their service in the ATG and other military services in the territory<sup>21</sup>. Draftee and cat skinner Bob Pittenger remembered a typical story: a sergeant performed a simple manual of arms then handed the rifle to Riley, an Iñupiaq man from Nome who had already served in the ATG, to see if he could try it. "Riley deftly took the rifle and performed a flawless Queen Ann Salute, a very complicated and fancy maneuver. Riley handed the rifle back to the sergeant and said, "you try it" (ibid: 43).

Serving in Alaska's World War II militia was a largely rewarding and empowering experience for Native Alaskans. It was also strategically valuable to the nation: the Eskimo scouts alerted officials to the presence of submarines off the Alaskan coast three times. The ATG proved so successful that regional scout battalions were later organized along the coast during the Korean War<sup>22</sup>. In addition to those in the ATG, at least 400 Iñupiaq and Yupik Eskimos served in World War II, and many more worked on paramilitary tasks such as the maintenance of airfields, the laying of fuel pipelines, and the operation of machinery.

As Vine's history of the U.S.'s global empire of bases illustrates, the expansion of U.S. militarism has been a continual process since the founding of the country (2009). Other scholars note that a fundamental transformation occurred after World War II with the onset of nuclearism and the national security state, marking a distinctly different type of militarization. Regarding militarization in the Arctic, this distinction cannot be ignored: the U.S. was arguably militaristic and imperialistic for the first century and half of its existence, and then it acquired an ultimate weapon and emerged from a world war

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<sup>21</sup> "If you were drafted in Alaska, you were trained in Alaska and you spent your entire time in Alaska,"(Pittenger: 43)

<sup>21</sup> "They are obviously the only military personnel who could, in time of emergency, live off the land and exist in this barren, frozen, territory. They have had considerable military training in camps and are considered a most valuable adjunct to the security of this entire area." – Letter from Sec. of Defense Charles Wilson to the Department of Health, Education, and Welfare, 1954 (quoted in Jenness 1962).

as the sole global super power. The history of Arctic militarization undeniably reflects this significant difference in pre- and post-World War II impacts.

The impacts of World War II on the territory of Alaska were transformative, and the experiences of the Iñupiat and other Natives (especially coastal) were proportionate. The war turned the isolated and disconnected territory into a battleground, and historian John Whitehead argued that Alaska later became a state because it had evolved into “an integral part of the extension of a permanent military defense perimeter thousands of miles into the far north” (Whitehead 1989: 192). In the years before World War II, Washington was not convinced that the nation’s sparsely populated hinterland was worthy of any attention, much less enormous military expenditures. Military activity had declined in the territory since the initial turn-of-the-century federal investments in exploration, communication systems (WAMCATS), and gold-rush law and order. At the outbreak of war in 1939, the population of Alaska was a mere 72,500, the only garrison in the territory was an immobile 250-man installation in Haines (Naske and Slotnik 1987), and annual defense expenditures amounted to less than \$1 million (Whitehead 1989).

Despite Alaska’s undefended position, the new era of aviation promised to change life drastically in the territory. As early as 1935, air power advocates such as General Billy Mitchell prophesied: “in the future he who holds Alaska holds the world, and it is the most important strategic place in the world” (Nielson 1988: 95). In the age of airplanes, Alaskan territorial delegate Tony Dimond wanted to be prepared for a war in the Pacific Ocean, where Alaska’s Aleutian Island chain claims distinction as the midway point on the shortest air route from Tokyo to Seattle. He relentlessly warned Congress of the threat of a Japanese attack. To no avail, he requested that bases be constructed in Anchorage, Fairbanks, and in the Aleutians.

An increase in federal funds supported some military construction in 1940, but not for the defense Dimond wanted. Four million dollars for a cold-weather testing laboratory in Fairbanks was approved, but Congress denied further appropriations mere days before Hitler’s armies occupied Norway and Denmark. Suddenly, the prospect of

Nazi bombers flying over the pole helped restore increased spending for new airfields. Alaska's military construction boom began in earnest, but the territory was still far from prepared for war in December of 1941 when the Japanese struck Pearl Harbor. The Pacific arena about which Dimond had warned was exploding. "For the first time since its purchase by the U.S. Government, thousands of Americans were shocked into the realization that Alaska was a part of America and the full awareness of their northern possession's strategic proximity to Asia and Japan" (Mills 1971: 57). Six months later, on June 3, 1942, Japanese forces attacked Dutch Harbor, Alaska, in the Aleutian Chain and occupied two of the most distant Aleutian Islands--Attu and Kiska.

World War II had a particularly interesting impact on people living around Barter Island. Residents of the area were told to be ready to go east to Canada at a moment's notice in case the Japanese should invade. Dog teams and sleds were kept packed and at the ready, pointing east. Several families did leave during this time, many of them relocating to Herschel Island where their families may have lived earlier during the height of whaling in the western Arctic (1889-1907). Like several other families, Ben Linn's left Kaktovik and Ben was born on Herschel Island. His family soon returned to Kaktovik, and Ben characterized the WWII alert as a "hullabaloo" that used fear to chase people away (Linn, May 31, 2009, Kaktovik). However, Kaktovik resident Robert Thompson believes that everybody felt a real fear that the U.S. would get taken over.

Canadian anthropologist Diamond Jenness found that both WWII and the Korean War had provoked a "grave upheaval" in Native settlements. The new military facilities along the coasts and in the interior restricted people's movements and activities while immediately opening up almost unlimited opportunities for wage employment. Around Nome, reindeer herds were placed out of bounds to their owners by military activities, while suddenly hundreds of thousands of dollars could be made selling carvings and fur clothing to military personnel. Opportunities for year round wage labor inspired waves of migration from communities outside military activity hubs. Although Native Alaskans had been tending to settle around missions, schools, and trading posts since those

institutions had been introduced, local ecological conditions still rigidly restricted the number of inhabitants any community could sustain<sup>23</sup>. It was only when the military provided unprecedented opportunities for employment and trade that “Eskimos irresistibly fluttered toward them like moths to a candle” (Jenness 1962: 40-1).

*“Numbers of natives left their reindeer herds, abandoned their trap-lines, and moved with their families to army and air force establishment within their own region, or to bases farther away in the Gulf of Alaska, Fairbanks, and other places. Only a few, and these mainly single men, reached the more distant bases; the majority settled around the military establishments at Barrow, Kotzebue, and half a dozen villages within the Bering Sea, where they swelled the local Eskimo population, but left the neighbouring coastlines denuded of a notable percentage of their inhabitants” (Jenness 1962: 40).*

Barrow, for example, had a population of approximately 330 in 1930 and had grown to 1,274 by 1957. From 1944 to 1953, Barrow served as the base for naval oil exploration operations that employed 50-100 Iñupiat<sup>24</sup>. In Barrow, the Navy established the Naval Arctic Research Laboratory (NARL) to gather data on Arctic conditions and the northern military environment.

Working for the Smithsonian Institution’s Bureau of American Ethnology, Robert Spencer’s *The North Alaskan Eskimo* (1959) was based on fieldwork that he did in Barrow in 1952 and 1953. Spencer reported that the influx of cash was having a significant negative impact on native arts and crafts (ibid: 363). The economic stress that had previously been brought about by the crash of the fur industry and the Depression necessitated renewed cooperation and sharing in the communities, and though there were

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<sup>23</sup> In 1931 the mean population of all villages north of the Bering Strait was 165; in 1940 only 20 out of more than 200 Eskimo communities in northern Alaska contained more than 200 people, none as many as 500 (Jenness 1962).

<sup>24</sup> President Warren G. Harding had established the Naval Petroleum Reserve Number Four (PET 4) in 1923, the reserve was transferred to the Department of the Interior in 1976 and renamed the National Petroleum Reserve in Alaska (NPR-A). In 1984, Ukeagvik Iñupiat Corporation took over the facility and continues to promote and support Arctic science at the facility, which now includes Ilisagvik community college hotel, a restaurant, offices, lab space, and residential units (Brewster 2004).

hardships, strong social institutions unified and balanced individuals throughout the community. PET IV was introduced into this setting, and, though worried about high tuberculosis rates, the Navy encouraged Native employment. Spencer found that the cash economy and new material wealth affected every family.

Barrow's prominent location at the "top of the world" and its position as the hub for all of northern Alaska seem to indicate that its emergence as the cosmopolitan center of the North Slope was inevitable. In fact, it is almost a complete fluke that Barrow became the military job center (and thus later the bureaucratic capital) of the Alaskan Arctic. In 1944, the ships of the first support expedition charged with constructing the PET 4 exploration base camp originally left Barrow 50 miles behind them. They tried to land near the oil seepages at Cape Simpson, waiting in fog, rough weather, and floating ice to find an adequate stretch of beach. Fortunately for PET 4 construction, the ships eventually abandoned hope of making an initial landing at Cape Simpson and backtracked to the vicinity of Point Barrow, where a long and wide beach of coarse sand formed the shore. The main camp and supply base was built on that sand, avoiding all the structural problems that buildings built on the tundra experienced (Reed n.d.).

Barrow, then, had PET IV and NARL to provide wage-employment throughout the 1940s and 1950s. Several of the Alaskan bases built during the war created regional hubs that managed to continue growing even after the war ended and the bases were closed. Certain bases and adjacent communities, however, lost most of their population when the soldiers, airmen, and Native employees were left without work.

Life at the wartime bases held serious advantages and drawbacks for Iñupiat and Yupik Eskimos. The locals were good laborers, faced hardships cheerfully, and many acquired new skills such as plumbing and carpentry, engine repair and machinery operation. Having regular work and good pay raised their economic status vis-à-vis the Taniks, the health of many improved with the abundant diet, and medical care checked the spread of tuberculosis and other diseases.

Writing in the early 1960s, Diamond Jenness characterized the worst aspect of the wartime bases as the availability of alcohol and the lack of restraint with which the

Native employees drank it. In the home villages many had left, barter operated largely without money and liquor had been available rarely and in small quantities, but “in the military bases it flowed like water” (Jenness 1962: 41). Jenness found that drinking caused the hard-earned wages to disappear, weakened the drinker’s resistance to tuberculosis, largely nullified the benefits of the food and medical attention, and was the most destructive factor in the welfare of the Natives in Alaska. He also noted that “drunkenness and prostitution go hand in hand the world over, especially at military encampments.” Just as the young soldiers had been uprooted from their homes and responsibilities, the indigenous inhabitants of northern Alaska had also been uprooted and their moral code “underwent as grave debasement as the soldiers” (ibid: 41). While men drank in bars, their wives and daughters surrendered to prostitution. With none of the political correctness of subsequent eras (or perhaps none of the constraints felt by American anthropologists), Jenness wrote:

*“...so these hardy Eskimos, but recently emerged from the stone age, strayed and bogged down in the fens of United States military bases, and a people that had fought and survived the rigours of the Arctic for 5,000 years threatened to dissolve into a horde of degenerates” (1962: 42).*

By 1946, Native Alaskans, along with the rest of the territory, were experiencing the massive post-war demobilization and the inevitable bust that follows frontier booms. The military bases were dismantled and most people returned home, the good wages gone. Alaska’s salmon industry hit a twenty-year low. Gold mines, closed since 1942 by a federal emergency order, reopened in 1946 with little promise of creating an economic foundation for the territory. Residents hoped that federal legislation granting homesteads to Alaska’s veterans would tempt many of them to stay on, but the population plummeted to 99,000 (Whitehead, 1989). A referendum held that year showed support for statehood, but the possibility that Alaska could financially support itself seemed farther away than ever.

Statehood was likely not the top priority for the demobilized and unemployed Native Alaskans, who returned home, but could not return to their previous lifestyles. Welfare became customary, and Barrow was the only town with a significant demand for wage labor. In some areas, the caribou had disappeared after being driven away or shot at by soldiers, or massacred by ATG members with their government-supplied weapons and abundant ammunition. Even with new government incentives, very few returned to reindeer herding (Jeness 1962).

Alaska's territorial leaders fought the inevitable post-war recession and cutbacks by aggressively promoting a new Pacific and global strategy. As territorial governor, Ernest Gruening warned: "it would be utter folly for us not to make Alaska an impregnable bastion [and] to make it a great base for both defense and offense for the protection not merely of the U.S. but the Continent, and indeed, for the Western World" (Ross 1968: 140). From the first years of tension between the U.S. and USSR, The U.S. Department of Defense was acutely aware of the increasing significance of Alaska's strategic location. By early 1947, it decided to create the first unified army, air force, and navy command in the nation, headquartering it in Anchorage. The Alaska Command, ALCOM, assured the future of Alaska's largest city (Whitehead 1989) and, as one military bulletin described it, "guard[ed] the polar gateway to the heartland of the USA" (Denfeld 1988: 12).

A "heartland" concept shaped the new military strategy for Alaska, which entailed a virtual abandonment of installations in the Aleutian Islands and a massive strengthening of the military bases in and around Fairbanks and Anchorage. Despite the significant wartime construction boom, Alaska was still a fairly primitive frontier. The military realized that vast expenditures would be needed to overcome the territory's totally inadequate transportation, communication, and housing facilities. A postwar defense construction boom caused the territory's population to rebound to 120,000 by 1948, and by 1949 Congress appropriated almost \$100 million for military expenditures for Alaska (Naske and Slotnik 1987: 132-133). The emerging Cold War assured that Alaska, only fifty-four miles away from the USSR, would remain strategically important as

“America’s Achilles heel” (Nielson 1988: 188) and deeply symbolic to the nation as a whole. This image empowered promoters of statehood to push for the full American rights due Alaska's residents. Air power, the nuclear age, the Cold War, and the National Security Act of 1947 created an enduring asset for Alaska with which no natural resources, however rich, could compete.

Military planners after the war based the direction of U.S. defenses on the events of the 1940’s; the surprise attack on Pearl Harbor, refinements in both air warfare and air defenses, and Soviet aggression. Many Americans believed that the Japanese surprise attack on Pearl Harbor resulted from a lack of strategic vigilance, and one result was popular support for all military efforts to prevent a similar occurrence. The Soviets began building airfields in northern Siberia in 1945, which were 1,000 miles closer to the U.S. heartland than any other Soviet bases. Chinese and Soviet backing of North Korea in the Korean War, 1950-’53, showed that “the Communist menace gripped a large part of the Northern Hemisphere” (Moeller 1995: 9). This cemented Alaska’s critical position in the North Pacific during the Cold War and provided the impetus for investment in the territory’s air defenses.

The U.S. national strategy envisioned the Army, Air Force, and Navy cooperating in the air defense of the continent by building a massive system to detect, identify, attack, and destroy strategic Soviet bomber forces. Deployment of an effective system became more critical in 1949, when the Soviet Union developed the atomic bomb and military planners realized that it took only one aircraft breaking through our air defenses to threaten a large area.

Alaska’s 19 DEW Line radar sites, as immense as they were, represent only a small fraction of the massive radar and communication system that spread over the territory. Radar sites built in the Aleutians during the war to detect Japanese planes were relocated to the mainland immediately after the war as the focus moved to defense of Alaska and all of North America. In 1949, Congress approved funding for the Aircraft Control and Warning (AC&W) network, which was to consist of 12 radar stations using newer technology. The outbreak of the Korean War accelerated funding and the system



was expanded to include six additional sites.<sup>25</sup> Beginning in 1956, the White Alice Communication System, which eventually consisted of 71 separate facilities spanning the entire state, was constructed to provide the radars with contact to the control centers.

The total military investment in Alaska between 1940 and the late fifties came close to \$3 billion. The territory's population steadied at 220,000, and over half of total employment was supported in some way by the defense industry (Whitehead 1989). Reflecting on the Alaska statehood convention forty years later, delegate and later two-term lieutenant governor Jack Coghill explained that the military buildup helped meet the requirements for statehood. Coghill considered that the territory's military influx produced an Alaskan population of "free people" instead of residents who had previously been "under the thumb of the fishing and mining industries" (quoted in Whitehead 1989: 127). Many sourdoughs were vehemently opposed to statehood and blamed the passage of the statehood initiative on the fact that the transient military greenhorns were allowed to vote. Dissent over the value of Alaska's entry into the Union continues, but the reason it entered is clear: World War II had created a new balance of power and the Cold War created America's first "defense state."

### *Alaskan Anthropology and the Military*

If northern indigenous residents experiences with the Cold War defense state were similar to Diamond Jenness's descriptions of World War II and the Korean War, then the subject of Cold War militarism should have provoked significant discourse among Alaskan anthropologists. In fact, very little mention is made of the military in several studies of the era. One reason for this could be that by the late 1950s, militarization in the U.S. went without saying - it was the norm and there was no perceived need to examine it

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<sup>25</sup> Aircraft Control and Warning System sites are in most ways similar to and sometimes referred to as DEW Line sites, the more so the further north in the state the site is located. From 1951 – 1958, 19 AC&W stations were constructed throughout Alaska: at Fire Island near Anchorage; Murphy Dome outside of Fairbanks; King Salmon near Naknek; Wales (Tin City); Newenham near Goodnews Bay; Romanzof near Igiak and Scammon Bay; Cape Lisburne near Point Hope; Galena; St. Lawrence Island; Tatalina near McGrath; Elmendorf; Ladd (Fort Wainwright); Indian Mountain near Hughes; Sparrevohn near Lime Village; Kotzebue; Ohlson Mountain near Homer; Fort Yukon; Unalakleet; and Middleton Island in the Gulf of Alaska near Cordova.

as a powerful force that changed and manipulated social and cultural values. Perhaps, as described in the previous chapter, anthropologists in general were disinclined to discuss war and conflict since these activities were still understood as exceptions to the norm in the societies anthropologists studied.

During the fieldwork for this DEW Line research, many people assumed that this author was affiliated with the military in some way. Given the subject of the research, this is hardly surprising, and the DEW Line sites have been the focus of increased attention in recent years. Since 1996 when remediation actions (project “Clean Sweep”) began, these communities have seen scores of Restoration Advisory Board (RAB) meetings with employees of the US Air Force’s 611<sup>th</sup> Civil Engineer Squadron, which is in charge of many of the remaining sites in Alaska. There have been large clean up crews working at the sites, usually staying at hotels in town. The environmental clean up program undertaken by the Air Force to remediate and demolish DEW Line sites is considered a federal undertaking under Section 106 of the National Historic Preservation Act. Because of this, the Air Force implemented plans to identify, evaluate, and, if need be, mitigate the cultural resources of the former DEW Line prior to conducting “Clean Sweep” (Metcalf 2008). People may have been aware of historical preservation studies conducted by anthropologist Karlene Leeper, who works for the 611<sup>th</sup> Civil Engineer Squadron. As part of these studies, Leeper led an oral history project through the Iñupiaq Heritage and Language Center to conduct approximately 60 oral interviews of former DEW Line employees and their wives.

When the subject of my affiliation came up, most people seemed to accept that I was “working on my own” – that is, on a project of my own design albeit as a UAF anthropology graduate student with federal funding and other grants, but not with military funding. Some people did not see much difference between these alternatives. Arctic residents have a clear understanding that in the recent past, many, perhaps most ethnographic and scientific studies in the Arctic were done with the logistical and financial support of the military. For decades, almost all research on the North Slope had at least the logistical support of the Naval Arctic Research Lab in Barrow as well as use

of the structures NARL owned in other villages. As anthropologist Margaret Lantis wrote in 1965, "...one must congratulate the Department of Defense and the Atomic Energy Commission for having done as much as they have for cultural anthropology and human geography in Alaska" (Lantis 1965).

When anthropologist James VanStone settled down in Point Hope for a year to conduct an ethnographic study in 1955, many community members associated the writer with the military. VanStone reported that this was because several years previously, the Army had stationed an observer in the village for nearly a year. Needless to say, Dr. VanStone, a professor in the Department of Anthropology at the University of Alaska Fairbanks (1951-1958) whose contribution to Arctic anthropology cannot be overstated, did not self-identify as an associate of the military. However, his fieldwork in Point Hope was funded by the U.S. Air Force and he was the senior investigator of the Air Force-Eskimo Contact Study, a significant ethnographical study undertaken by the U.S. Air Force's Arctic Aeromedical Laboratory.

The Arctic Aeromedical Laboratory (AAL) was an institute based at Ladd Air Force Base in Fairbanks (later Fort Wainwright) that included approximately 60 military and civilian researchers who worked on a wide range of subjects related to Arctic warfare. From the late 1940s through 1967, the U.S. Air Force supported hundreds of studies on the Arctic via the Arctic Aeromedical Lab. Most of the studies were physiological (largely concentrating on metabolism and cold exposure), biochemical (cold, nutrition in the Arctic), and environmental or biological, but quite a few were psychological or sociocultural. Almost all of the Lab's studies were contracted to university departments. In 1964, for example, the Lab had about \$300,000 worth of research contracts with around 19 institutions, including about 17 universities (Drury 1964). A 'human factor' laboratory charged with Arctic problems of the Alaskan Air Command, its social research projects, like VanStone's study, involved several of the foundational studies in modern Alaskan ethnography.

This subject of funding for Alaskan ethnographies prompted anthropologist

Norman Chance to discuss briefly the extent to which logistic and financial support offered by the military influenced the selection of topic for study:

*“The basic task of the military assigned to the Arctic was defense. And that defense included the need to determine the status of Alaska Native populations living within the military’s perimeter of interest – including the Native’s economic, social, and political relations with one another and the outside world. Those anthropologists interested in undertaking such acculturation studies were welcome to apply for support. Those wishing to explore other topics pertaining to art, mythology, religion, or similar ethnographic subject usually had to find their funding elsewhere” (Chance 1990b: xvi).*

Anthropologist Charles Hughes also addressed the subject in 1984:

*For a variety of reasons best illustrated by a sociology of knowledge perspective on the ways World War II affected the academic community, much research by anthropologists...began to take on a form that had implications for the problems of contemporary life. A great deal of the research...was designed explicitly to be of use to the administrator, the policy maker, and the economic developer (Hughes: 24).*

Chance’s goal in choosing Kaktovik as a community was specifically to study how the people there were adapting to the dramatic transformation that occurred because of DEW Line construction. He was detailed and critical in his description of the militaristic worldview, which saw the land and its people as simply means to the end of winning the Cold War. However, in spite of the fact that military construction was recognized as having significant impacts across the entire North Slope and on other indigenous lands in Alaska, very few other acculturation studies have focused on it and many have failed to mention it entirely.

The Arctic Aeromedical Laboratory’s Air Force-Eskimo Contact Study’s original intention was to describe a cultural base level among ‘typical’ Alaskan Eskimo communities, to which would be compared later two other communities strongly affected by military installations. The first phase of the study consisted of VanStone’s research in

Point Hope (*Point Hope; an Eskimo community in northwest Alaska*, 1961) and Wendell H. Oswalt's concurrent fieldwork in the Kuskokwim community of Napaskiak (*Napaskiak, an Eskimo village in western Alaska*, 1961). Unfortunately, the second phase of the study was dropped, perhaps due to Air Force change of personnel, and the Arctic Aeromedical Laboratory reports on the first two parts of the study are not available.

VanStone and Oswalt were not undertaking these acculturation studies because they were the only subjects for which they could obtain funding – these areas and subjects had long been main interests of theirs. As discussed in the previous chapter, working for the military had absolutely been the norm for anthropologists. VanStone and Oswalt's predecessor at UAF, Froelich Rainey, had left his position during the war to work for the Board of Economic Warfare and had run a mission in Ecuador to highjack quinine bark from the Germans before working as a State Department consultant at the end of the war. During the early years of the Cold War, Rainey was engaged by the C.I.A. to recruit and plant spies abroad under the cover of museum research, an activity that he later regretted.<sup>26</sup>

In VanStone and Oswalt's relatively minor association with the military, it is clear that the goals of the sponsoring agency helped direct the particular location of research, but whether military funding limited the ethnographers in what they felt comfortable reporting is not as clear. A number of criteria were chosen to help select communities that were typical of a group of villages, but the first consideration "was the desire of the of the sponsoring organization, the U.S. Air Force, that this study provide background information on Eskimo culture to facilitate more harmonious contacts between armed forces personnel and the Alaskan Eskimo. A second consideration was that the U.S. Air Force was willing to support one year-long study within each of the two major Eskimo

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<sup>26</sup> "Looking back, I wonder at my own stupidity. Of course, many of us then were exceedingly concerned about the developing cold war, and few of us could know just how that branch of the C.I.A. would emerge. But I was well aware of the association in the popular mind of archaeologists with spying, and should have known that any link between our research and intelligence agents was not only silly but badly damaging" (Rainey 1992).

language groups in Alaska” (Oswalt 1963: 164).

VanStone’s selection of a suitable village was simplified by the criteria that it be a relatively conservative northern coastal village, without extensive or unusual contact, that was located north of Kotzebue Sound. Thus, he had to choose between Kivalina, Point Hope, Point Lay, Wainwright, and Barrow. Barrow was a cosmopolitan trading center with a large tanik community, and Kivalina was deemed too small with a population that had not been particularly stable over the preceding 20 to 30 years. Point Lay, with construction of Auxiliary DEW Line site LIZ 2, was already “the site of extensive military construction and is, therefore, subject to influences that are by no means typical of Alaskan coastal villages” (VanStone 1961: 5). Point Hope was ideal: it had been continuously occupied for many hundreds of years; it was a village “without extensive current Western European contacts in the form of military construction” and, more than any other village in the northwest coast of Alaska, was “a close knit community with considerable community spirit” (ibid).

VanStone and Oswalt’s original abstracts contain an identical paragraph:

*“It is recommended that any movement of armed services personnel into the vicinity of a northwest Alaskan Eskimo village be preceded by a careful consideration of the village social system, as defined and described in the body of this report, so that a satisfactory relationship with the indigenous population can be established and maintained”* (Oswalt 1961; VanStone 1961).

While Oswalt’s abstract ends there, VanStone’s continues:

*“This report concerns contemporary life in a relatively isolated village in northwest Alaska. It is for the use of intelligence officers, individuals concerned with Arctic survival, and others requiring first-hand information on life in a contemporary Eskimo village. The application for the Air Force is to serve as a pilot study to guide investigations of contact between Eskimos and armed services personnel”* (VanStone 1961).

VanStone's report contains several references to the impact that the military had already had in Point Hope, including the significance of the Alaska National Guard building as one of the largest in town. The detachment at Point Hope consisted of approximately 40 locally recruited men ranging in age from 17 to over 50 years of age. National Guardsmen participated in annual two-week encampments in Anchorage, which both VanStone and Oswalt believed was the primary recruitment attraction. VanStone found that the cash payments were a negligible factor in village economies, but that men were also attracted by the clothing and rifles issued. Many Point Hoppers used the Model 1917 Springfield 30/06 that had been issued to them in the Alaska Territorial Guard during World War II for seal hunting, despite the fact that these guns were more powerful than necessary and the ammunition was expensive. In 1955-56, an Army veteran with six years of service and the rank of master sergeant in the Guard commanded the Point Hope Guard unit, and VanStone found it curious that this individual, highly respected as a noncommissioned officer in the Guard, was "completely devoid of the leadership qualities that are respected in the village. He is without authority or prestige outside of his position with the National Guard" (VanStone 1961: 107).

Although very few Point Hoppers had been drafted into World War II due to high tuberculosis rates, VanStone reported that Army experience seemed to have had a broadening effect on those who did serve, as they spoke better English and were, for the most part, more acculturated generally. VanStone detailed other contact between Point Hope and the military:

*"In spite of the extensive military construction going on in northwest Alaska at the present time, Point Hope has had little direct connection with military and construction personnel. A radar site is located 50 miles north of the village at Cape Lisburne, and a large number of Point Hope men were employed there during its construction. In 1953, the Army established a small camp about 1 mile east of the village which was manned for 2 years and then shut down, presumably because it was difficult to supply. The commanding officers at this camp seemed to have been strongly impressed with the desirability of getting along with the villagers, and men were shipped out who became*

*involved with village girls. One informant told the writer that “unmarried girls sure had a good time,” but this is probably an exaggeration”* (1961: 108).

Interestingly, VanStone contradicted his own report on relations between village girls and Army men in writing about the Army detachment earlier in his report, where he noted: “A number of local girls became friendly with the soldiers and several children resulted. Local young men were annoyed with this situation, and viewed with considerable disfavor any girl who appeared to prefer soldiers to men from her own village” (1961: 83).

VanStone reported that the Army was particularly sensitive about being taken advantage of by the villagers. At one point, when they thought they were being overcharged for mukluks and other native products, the commanding officer threatened to stop the free movies and other services the military were providing for the villagers. “All in all,” VanStone concluded, “the people seemed to have liked the Army men and one hears many regrets that they are gone” (ibid: 108).

VanStone’s description of the Army camp outside Point Hope is in line with Arctic Aeromedical Laboratory documents describing Air Force strategies for obtaining cooperation from Arctic village populations:

*It would seem to have been the experience of military detachments in the past to find that Eskimo villages were anxious to welcome them and cooperate with them in every possible way...Military men should work closely with the village council in determining such things as employment of local people and use of local and military facilities. Commanding officers of military detachments should keep in mind that all aspects of interactions between villagers and military personnel can be potent causes of friction and breakdown of cordial relations. Military groups will usually find that it is advisable to share some of their special advantages with the people of the village. Free movies to which villages are invited and joint entertainment of various kinds will do much to cement relationships between the two groups...(Birch et al. 1997: 23)*



Further strategies employed by the AAL include working through the military representative in the village as well as through Whites in positions of authority who could be utilized to obtain village cooperation.

Conducting the second investigation for the Air Force-Eskimo Contact Study, Wendell Oswald arrived in the Kuskokwim community of Napaskiak in 1955 via similar selection criteria and with similar goals as VanStone. Oswald did not report that people there associated him with the military, but some did think at first that he was an undercover agent for the U.S. Fish and Wildlife service, or a secret missionary, or hoped that he was there to open a liquor store. Oswald, who received his undergraduate degree from the Department of Anthropology at UAF and is another significant figure in northern anthropology, also took his 1961 report for the Arctic Aeromedical Laboratory and turned it into a book (*Napaskiak, An Alaskan Eskimo Community*, 1963). Although it is not obvious whether differences in the two texts are due to the different funding agencies, Oswald did share a great deal more of his thoughts concerning the impact of the military on the people of Napaskiak in the book than he had in the earlier AAL report.

In the 1963 book, Oswald explained that the recognition during World War II of Alaska's strategic location had effectively drawn the Napaskiak Eskimos into the struggle of ideologies. He found them to be thoroughly confused about international relationships and the reversal in them, since they had been told a few years previously that the Japanese were our enemies and the Russians our great allies. They had a poor understanding of these changes and "may ask why the Russians are now bad and why it is that gussuks always want to fight and kill one another" (Oswald 1963: 75). Their reaction, he found, was to participate in military organizations because they recognize distinct advantages on the local level, without giving much, if any, thought to broader national and international implications.

Much like VanStone's report, Oswald's 1961 account described very matter-of-factly the workings of the National Guard (the timing of the drills, the significance of the cash income, the two-week encampment in Anchorage, etc.). A total of three paragraphs described the subject in the 1961 report, with one describing that declining enlistment

was due to the changes that accompanied the transition from the Alaska Territorial Guard to the National Guard. Foremost among these changes were restrictions on the issuing of clothing and equipment, but also, as in Point Hope, the new leader of the unit was “an aggressive young villager who is acquainted with Army discipline, protocol, et cetera, and who attempts to use Army techniques in his management of the unit” (Oswalt 1961: 41).

By contrast, two complete pages are dedicated to describing this situation in the 1963 book where Oswalt also provided greater historical context. When the ATG was formed during the rush to prepare Alaska for a possible all-out invasion, older men with standing were usually made officers and other villagers were enrolled as enlisted men. The urgency of wartime also meant that there was little of the discipline usually associated with a military organization. Oswalt stated that the ATG officials on the Territorial level had a very paternalistic attitude toward the village units, but that the men enjoyed the material advantages in the form of great quantities of military equipment.

After the war, U.S. National Guard officers took charge of local headquarters in Bethel and introduced startling policy changes. Members were only permitted to use the military equipment during drill and lesson periods. Oswalt argued that the next and even more radical change was to drop elder villagers as leaders within the local units and consistently replace them with young, aggressive men who spoke good English and who were flown to the National Guard headquarters in Anchorage for intensive training. The results were significant:

*After the new leaders had returned to their communities, there was a remarkable change in the local military atmosphere. The sergeants at Napaskiak drilled their men on the slough ice in front of the village during the winter. The men marched back and forth to the shrill counting of cadence. There were frequent breaks in the drills during which the men stood at strict attention and individuals were yelled at in typical military fashion for some flaw in marching technique. Villagers watching these scenes from the riverbank would stare in amazement, hardly able to believe that the government was teaching young men to reprove their elders and even to ridicule them in the presence of other*

persons (Oswalt 1963: 76).

Older members dropped out due to physical complaints, younger men planned to do so as soon as their terms of enlistment were completed. The new sergeant was strict about the required forty-eight drill and training sessions per year, and men found that participation was making real demands on their time. Most of the men considered the local sergeant to be responsible for the changes and disliked him. Oswalt found that these feelings of hostility were normally expressed when the men had been drinking: "While in this condition, one man said that he hated the sergeant, and another gave the sergeant a black eye. Still others bide their time but do not forget their humiliation at his hands" (ibid: 77). Oswalt concluded that the form of aggressive behavior encouraged by the National Guard made a very unstable and fluid situation for unit members and villagers alike: "The final results of having such a permanent military organization in the community can only be speculated upon at present. However, it seems likely that the National Guard is currently the most disorganizing influence in community life" (ibid: 77).

Oswalt revisited this subject again in his 1979 book, *Eskimos and Explorers*, briefly mentioning that no study on the continuing impact of the Guard on village life had been done, but that his impression was that "the military hierarchy of the guard and its rigidity represent a negative influence on the essentially egalitarian structure of village life. At the same time, the guard appears to have been an important institution in the acculturation process" (Oswalt [1979] 1999 : 291).

Again taking a broader regional view, Oswalt returned to this subject in his 1990 book, *Bashful No Longer: An Alaskan Eskimo Ethnohistory, 1778-1988*. Here, Oswalt described the ATG members as "trained in guerilla warfare," explained that until 1973 villagers typically served in the Alaska National Guard to avoid being drafted, and again contended that although no study had been made on the impact membership in U.S. military organizations has had on Eskimo life, "one would suspect that it has been deep and lasting on most of the persons involved" (ibid: 166-167). In describing how statehood

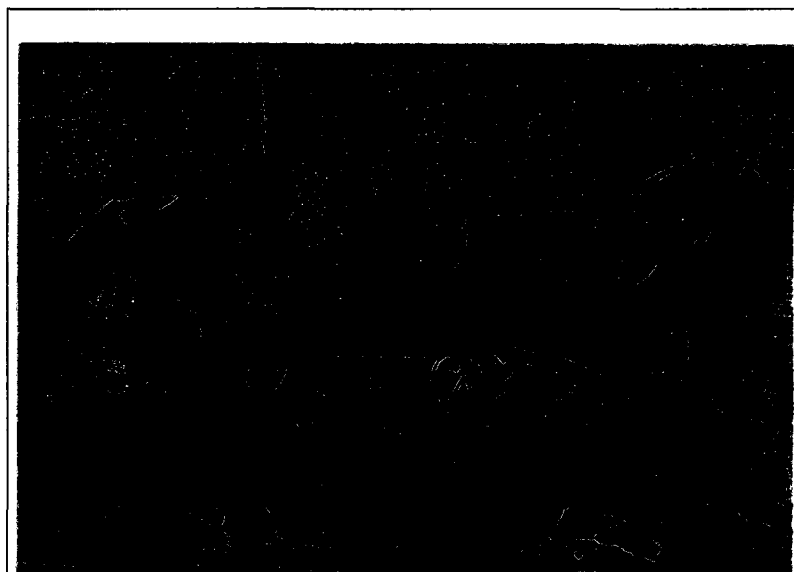
had resulted in the replacement of U.S. commissioners with state magistrates, Oswalt suggested that this new legal system undermined the power of village councils in Eskimo communities by moving decision-making power from a local consensus leader to a tanik law enforcement agency. Oswalt continued: “Another political change occurring within the same time frame was far more rapid and disruptive” (Oswalt 1990: 165). A similar description of the transformation of the ATG to the National Guard followed, and Oswalt wrote: “In the mid-1950s, Oswalt observed the ANG unit in the village of Napaskiak and found it to be the American institution with the most negative influence on traditional community life” (ibid: 166). In the notes for this section, Oswalt wrote that there was every reason to believe that the same patterning prevailed in other Eskimo villages in the region.

In the acknowledgements for his 1961 report, James VanStone wrote of the support he had received: “...the most important of which was provided by personnel of the Arctic Aeromedical Laboratory at Ladd Air Force Base, Alaska. This organization initiated and financed the entire program and, *although not primarily concerned with the social sciences*, was extremely helpful and encouraging on many occasions” (VanStone 1961: 163). Oswalt, by contrast, first acknowledged Ivar Skarland (head of the Anthropology Department at UAF), then VanStone, and lastly the Arctic Aeromedical Lab for generously supporting the study. In contrast to VanStone’s depiction, Oswalt wrote that “the personnel have, *through their stimulating interest in social science*, contributed immensely to its success, (Oswalt 1961) (emphasis added in both quotes).

The irony in the historical context of these reports cannot be ignored. “It should always be kept in mind that any great changes which the future holds for Point Hope will come from outside the village and will represent situations over which the villagers have little or no control” VanStone wrote (1961: 160). VanStone selected Point Hope in 1955 precisely because it had not been subject to intensive military construction, but by the time his report was published in 1961, the village was at the center of a critical statewide and national debate over the Atomic Energy Commission’s plan, Project Chariot, to construct a harbor at nearby Cape Thompson using thermonuclear bombs. VanStone had

also chosen Point Hope because it had “considerable community spirit” and “the people seem to possess a sense of cohesiveness as a village. That is, they consider themselves tied as members of a community who have had their roots in one place for a long time” (1961: 5,15). In his history of Project Chariot, author Dan O’Neill argued that it was precisely this tradition of cohesiveness and sovereignty that saved the Tikirarmiut in their “brush with extinction in the atomic age” (1994: 8). A further irony is the same anthropological research was also used to thwart the designs of the Atomic Energy Commission. When geographer Don Foote’s findings were ignored or contradicted by promoters of Project Chariot, Foote used VanStone’s findings and those of Froelich Rainey, who lived at Point Hope in the late thirties and early forties, to corroborate his argument that the Cape Thompson area had been a hunting ground of the Point Hope people for at least 2,000 years (O’Neill 1994: 172).

During the same time period, the Arctic Aeromedical Laboratory also sponsored Frederick Milan’s monograph of Wainwright (1958) and several of Milan’s subsequent studies into human thermoregulation, including *A study of the maintenance of the thermal balance in the Eskimo*, (1960) (fig. 16), which was the basis for his doctoral dissertation. In addition to receiving his undergraduate degree at UAF in 1952, Milan was a University of Alaska Fairbanks professor (1971-1987) of human ecology and anthropology.



**Figure 16: Arctic Aeromedical Laboratory work**<sup>27</sup>

In the interim, Milan did his graduate studies and worked as the Project Officer and Chief of the Environmental Protection Section of the Arctic Aeromedical Laboratory, which was responsible for the development and evaluation of clothing, protective and survival equipment, and survival procedures designed for use in the Arctic. Milan also submitted reports on the dwellings of Swedish Mountain Lapps and evaluated U.S. Air Force winter survival shelters. Milan's *Observations on the Contemporary Eskimo of Wainwright* (1958) (later released as *The Acculturation of the Contemporary Eskimo of Wainwright, Alaska*, Milan, 1962) was based on data gathered in support of an Arctic Aeromedical Laboratory sponsored study of cardiovascular disease: "It was thought at the Arctic Aeromedical Laboratory that a descriptive survey of a contemporary Eskimo village might serve a dual purpose, providing information of interest to the pathophysiological concerned with the cardiovascular studies and to the Air Force in general." In some aspects this report seems like it could be the second, 'militarized' half of the Air Force-Eskimo Contact Study, but it is far less detailed (based on 10 weeks fieldwork as opposed to the year each that VanStone and Oswald had spent) and is not officially presented as such. However, Milan explained that since the increasing strategic

<sup>27</sup> Contract scientists using bath calorimeter to measure thermal insulation of body tissues of Point Barrow Eskimos (Arctic Aeromedical Laboratory, 1961: cover).

importance of the Arctic Coast of Alaska made it a location for Air Force installations, it “behooves the Air Force to inquire into the present status of their Eskimo allies with a view toward maintaining amicable relations between Air Force personnel and the native people” (Milan 1958: 2).

Milan’s subsequent statement also reflects goals similar to those of the Air Force-Eskimo Contact Study:

*“The ability to predict the amount of assistance or resistance that an Eskimo community would offer to a potential invader may offer substantial assistance to the Air Force agencies concerned with operational planning. Though resistance might be motivated by extreme patriotism and an identification with the aims and ideals of the United States, assistance given to an invader would not necessarily be motivated by a lack of patriotism. Non-aggressive tendencies as part of a basic personality complex, a history of grievances in dealing with the United States Government and its agencies, matters of expediency of the moment, and fear, might act as strong motivating factors.”* (Milan 1958: 2).

As Project Officer and Chief of the Environmental Protection Section of the Arctic Aeromedical Laboratory, Milan initiated and acted as contract manager for Richard Nelson’s studies *Literature review of Eskimo knowledge of the sea ice environment* (1966a), *Arctic Eskimo Exploitation of the Sea Ice Environment* (1966b), and *Arctic Eskimo Exploitation of the Summer Sea Ice Environment* (1968). Milan was also the lead for G. Ray Bane’s *Environmental Exploitation by the Eskimos of Wainwright* (1966). Bane and Nelson worked together in Wainwright and have collaborated since then as part of each scholar’s immense and ongoing contribution to the anthropology of Alaska. Bane and Nelson barely mentioned the military in their reports: Nelson noted that he spent a briefing period before the field study with Milan and others at the Arctic Aeromedical Laboratory and wrote that the information could be of great value in the development of survival training programs by groups such as the Armed Forces. Bane pointed out that studies of Arctic inhabitants had previously been considered for their intrinsic rather than their practical value, but that the Arctic had

changed and “[a]ccompanying this understanding of the commercial potential of the Arctic has been a growing realization of its strategic military significance, resulting in the establishment of permanently manned radar sites and regular air patrols” (1966 I-1).

Another important aspect of the funding for and timing of this valuable ethnographic research is that during the same period, the Arctic Aeromedical Laboratory performed thyroid function experiments using radioactive Iodine-131 on people in Wainwright, Point Lay and other Alaskan Native communities without their knowledge or informed consent (Birch et al. 1997). The experimentation was revealed to the public in the early 1990s and a suit resulted in compensation (around \$68 thousand) for each person that could prove they had been tested. The importance of the Iodine-131 tests in shaping local residents’ current feelings about the military cannot be understated. Fieldwork for this research revealed that the Iodine-131 incident is considered by many people on the North Slope to be by far the most destructive and invasive military activity in recent history. A relevant question for anthropology is whether VanStone, Oswalt, Milan, Nelson, and Bane would have been able to conduct *any* anthropological research in these communities if the people had been aware at the time that the same agency funding the anthropologists was the one experimenting on them with a radioactive element.

This limited case of Alaskan anthropology during the Cold War represents just the first of many ironies that emerge during an investigation of Arctic militarization. While Margaret Lantis wished to acknowledge the military’s contribution to Alaskan anthropology, it seems preferable to acknowledge the anthropologists themselves, who, despite possible restrictions on their work due to their funding source, produced excellent ethnographies.

A prominent example is Ray Bane’s military-funded research in Wainwright, which led directly to unprecedented federal subsistence rights for Native Alaskans and other indigenous peoples. Bane’s project there was his first formal introduction to a subsistence lifestyle the critical importance of it for the Iñupiat. Spending much of his



time in Wainwright under the tutelage of Wesley Ekak<sup>28</sup>, Bane became what he called ‘a convert’ and ‘an advocate’ for subsistence rights. During a long dog trip that covered much of northwest and arctic Alaska, Bane took in the fact that the federal government was actually going to set aside large areas of land in Alaska when an “Alaskan lands” bill passed Congress. Bane saw the importance of having the native reality and the role of subsistence in native culture being a factor shaping that act. He advocated the National Park Service to fund subsistence research and worked as part of the team that was formed for a full-scale, year-long project in Shungnak. Bane’s conviction that any new National Park had to incorporate the Native’s perspective guided him as he helped craft research for what became ANILCA, the first land law that reflected the value of cultural interests and continuity.

The conclusion that it is better to have militarized anthropological studies than none at all is itself an example of militarization. It illustrates a phenomenon at the heart of militarization, related to the ‘gift economy’ of bases, which is often used to stifle dissent. The issue is the belief and acceptance that *without* military funding and research, the public would not have ethnographies, airplanes, computers, mechanical pencils, etc. This case also illustrates the overarching militarization of Arctic science and technology during the Cold War, a subject which the DEW Line brings up repeatedly.

### *Creating Cold War Arctic citizens in Canada’s western Arctic*

The Inuvialuit people of Canada’s western Arctic were also affected by World War II and buffeted by the economic boom and bust cycle that had gripped their region since the heyday of Yankee whaling on Herschel Island. Suffering acutely from the crash of the fur industry, the tide of change that swept through the McKenzie River Delta region during World War II and the early years of the Cold War transformed their environment and their fundamental way of life. In the Delta, the balance of power that existed in the early 1940s between traders, missionaries, the government, and Natives

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<sup>28</sup> The night we arrived in Wainwright in the fall of 2009, we met Charles (Chuck) Ekak, Wesley’s son. Chuck, now in his 60s, and is the leader of the local search and rescue operations. He remembers fondly his father spending time with Ray Bane and ‘Dick’ Nelson when they were there. Chuck put us up in his cabin while we were in town and we became friends.

was dismantled due to several factors: a collapsing fur trade, the secularization of social services, and the defense requirements of the Cold War. These central northern actors struggled to direct not only the future of the Arctic but the identities of its inhabitants, and as the traditional socioeconomic connections between Inuvialuit and Taniks eroded, new relationships with the national government emerged. At the height of this transformative period and long before a consistent government vision had been reached, the sudden arrival of the DEW Line was an event that in many respects acted as catalyst for change. For the Inuvialuit, but the rapid construction of the DEW Line resulted in dramatic adaptation within a few short years to a very specific type of contact. It also forced federal bureaucracies to quickly adapt their visions of what kind of Canadian citizen a modern Inuvialuit should be.

#### *Whalers, Fur Traders, and Missionaries*

Unlike more remote Inuit in the central Arctic, the Inuvialuit along the Alaska-Yukon North Slope were already familiar with Euro-American culture and economies by the early 1950s. As early as 1880, whalers had expanded their industry to the Beaufort Sea and transformed Herschel Island into a major whaling station. In addition to trading for fresh meat during their over-wintering, the whalers employed Inuit crews on a seasonal basis and introduced disease and liquor to the local culture. Although earlier forms of barter had existed, the whaling industry established trade as a fundamental part of the local economy.

Whaling led to another factor unique to the western Arctic: a small detachment of Royal Canadian Mounted Police had been in the area since the 1900s. Established on Herschel Island during the height of the whaling industry, the detachment had been sent in response to requests from missionaries. Numerous sensationalized reports of debauchery and depravity that had befallen the locals at the hands of the whalers were sent in by the church men, who warned the government to provide justice and order.

By the 1920s, commercial whaling had ended but the economic connection to the south was maintained through the growing fur trade. The Hudson Bay Company and its less powerful competitors were pushing up the McKenzie River Delta and securing their

profits by imposing the trapping/trading system on the region. Traders then began requesting governmental regulation in the Beaufort Sea area, claiming that justice and order could be provided in the region by allowing the Hudson Bay Company to establish a monopoly. The Hudson Bay Company (HBC) dominated the economy of the western Arctic for the next three decades, and the company's influence extended far beyond business. For the HBC, interest in the lives of the Inuvialuit was motivated by the goal of streamlining the fur trade market. The construction of trading posts created the first phase of relocation and settlement for the local people, who previously moved semi-nomadically according to the season and game. Entire communities uprooted from their traditional regions to settle in areas where the trapping was plentiful, or often to areas where the non-natives had easier access to the South. Even when the government began to extend its influences in the area in the mid-1940s, official policies were often guided by what was profitable for the Hudson Bay Company.

Success and failure in the fur trade created new kinds of classes and social mobility within Inuvialuit society. Although these classes were similar to the status of the best hunters before the fur trade, now the best hunters were often the best trappers. This earned them a measure of respect from the white men and allowed them to purchase more and better trapping equipment to increase their chances. The HBC introduced a credit and debt system for local residents to increase the traffic of furs and profit. To ensure a good annual harvest, the HBC would grubstake trappers before the season began, extending an average of \$800 in credit (RCMP 1939-1951). After creating the credit and debt system, the responsibility of issuing relief to destitute native became a subject of contention between the Inuit, the traders, the missionaries, and the government for decades to come.

Conflicts between fur traders and governmental authorities were not the only disputes in which the Inuvialuit found themselves during these decades, as competition over their souls was a source for feuding (often violent) between the Roman Catholic and Anglican missions in the area. Further complicating matters, missions often engaged in bitter competition with HBC stores by establishing their own supply depots and underselling the fur traders. Some of the church-run hospitals in the North saved Inuit

tuberculosis patients from being sent to southern sanatoriums for treatment, and missions often extended into areas rich with possible converts, if not abundant fur animals, and became the sole source for goods and other services.

Thus, the fur traders were coercing Inuvialuit to move near trading posts in areas rich in game while many churches were coercing people to move to settlements around missions to attend mass and church school. At the same time, the RCMP and many other forces within the northern administration were trying to persuade the Inuvialuit to return to the land and subsist independently.

Up to the mid-1940s, Canadian policy of laissez-faire economics was used to justify a 'hands-off' policy in the North. Administrators for the North allowed missionaries and trading posts to provide goods and services, including medical help and education, for local inhabitants. Apart from the small RCMP detachment and a few reindeer herding projects, the government had as little involvement with governing the Inuit and Inuvialuit as possible before the 1950s.

The policy of noninterference was an explicit and deliberate one, and the right to not be held accountable for the Inuit was itself a calculated and researched stance. Canada's federal government, in fact, did not want to acknowledge the Inuit as citizens. Before the watershed 1939 Supreme Court decision, *Re: Eskimos*, found that the Canadian federal government was responsible for the Inuit, there was no constitutional definition of Inuit status and no corresponding delineation of authority. Even at this low level of participation, northern administration was contradictory, unsystematic, and incoherent. Problems for the administration arose as much from differing philosophies within the government as from issues in the field. In several places in the North, starvation was a real and increasingly common occurrence, and the government soon found it impossible not to interfere. It established a rudimentary relief distribution system when trading posts and missions failed. However, it was against many leaders' wishes that the government found itself in the position of distributing relief. The ramifications of a relief system that was not supported by its own authorities were widespread, not the least of which was a pervasive attitude of disapproving paternalism which saw relief as a

shameful thing that was detrimental for people and only to be administered when starvation was imminent.

The confusing responsibilities for issuing relief prompted some northern policy advisors to advocate a complete, government-sanctioned monopoly by the HBC to streamline the procedure. Others reacted by suggesting that the government should not only take over all relief responsibilities, but should take over control of the trading companies and peg the price of fur. The geopolitical circumstances of the Arctic, moreover, soon made it clear that the practice of officially delivering aid to the Inuit could be used as evidence of legitimate sovereignty. Government documents from the 1920s reported that relief was originally distributed to establish the principle that the indigenous residents were under Canadian control (Tester and Kulchyski 1994).

In the 1940s, the War and the drastic collapse in fur prices were the first link in a chain of significant events that affected all areas of northern affairs. As the bottom fell out of the fur market and drastically increasing numbers of indebted trappers fell on hard times, they turned to the trading posts to provide relief. The traders refused to provide relief or extend credit to people with outstanding debts, and they passed on the effects of their activities to the government. The price collapse occurred soon after the 1939 Supreme Court decision on federal responsibility and just as the state was extending its control over White/Native contact in the North. As mentioned, government officials began certifying trading posts as official credit allocation centers. This changed the majority of HBC's profit structure, as its intake of furs declined and the amount of government money it allocated increased, until the fur trade credit system was largely transformed into a welfare system. HBC collected most of the money back from locals in exchange for goods, leading to factionalism within the population as several HBC posts threatened to withhold relief if people patronized any other company. As the authorized distributor of family allowances, it was up to the trader to decide when scarcity required the allowance. It also meant that HBC began importing a much wider range of luxury items to its posts in order to keep their profits up.

As the price of fur was collapsing, a great transformation of social and federal civil service began and welfare soon became a universal social program administered by the government. The end of World War II brought about a widespread public sentiment of social consciousness that broke the dominance of laissez-faire economic policies in Canada and led the country to support a short-lived, pro-socialist leadership. Since the war had dramatically increased the strategic significance of the Arctic region, the government also began to see its northerly holdings as a key to prosperity and a dominant force of Canadian psyche.

### ***Compassionate Interference***

A new Department of National Health and Welfare was given responsibility for Indians and Inuit in 1945, but much of the bureaucracy held on to older Tory beliefs and conflicts within the administration between reform-minded officials and these conservatives created especially hard fallout for the Inuvialuit. A large segment of the population had been dramatically destabilized by the collapse of the fur trade. Some Inuvialuit maintained their limited requirements for western goods by staking claims and mining the placer gold deposits of the Firth River. Further removed from the trading posts were pockets of people who still relied principally on hunting and were less affected, but most of the Inuit west of the Mackenzie had a well-incorporated cash component in their lives and the collapse of the economy ushered a deep depression into the region.

Having slowly accepted full responsibility for the welfare of the Arctic's indigenous residents after the long period of noninterference, the Canadian government experimented with a variety of programs and policies in an effort to help the Inuit adapt to full citizenship. While the old method proposed to avoid dependence by practicing 'enlightened neglect,' the new liberal ideology was infused with humanitarian intent and proposed to help the Inuit readjust and eventually regain independence by espousing 'compassionate interference.' The interventionist policies called for a massive expansion of departmental personnel, especially welfare officers and the new Northern Service

Officers (NSOs).

As during the previous era, government agencies were faced with similar difficulties in applying any policy uniformly. Northern administrators still needed to hire men with experience in the Arctic for many positions, but the main source of old 'Arctic Hands' was predominantly former HBC company employees. These men tended to promote monopolistic control by the company in such business as the distribution of family allowances and authority over savings accounts, among other affairs - activities that liberal government officials and the public increasingly viewed as exploitative. In contrast, the HBC men and others saw suggestions that the government should control these activities as evidence of a dangerous "creeping socialism" (Tester 1994: 108-109).

In 1953, the Department of Northern Affairs and Natural Resources was created in an attempt to address the entirety of problems created by neglect and other previous policies. All aspects of the north were to be studied and regulated, a practice that provided a significant amount of information as well as a great deal of archival documentation of inner-governmental activity. One warden's report reflected modernized Canadian standards for citizenship:

*"The Department of Resources and Development is by no means satisfied that this group of Canadian peoples should remain at their present standard of economy. An active and continuing study of ways and means of improving the Eskimo's welfare and economy is well in hand and all practices and projects which are considered to be of value in raising the standard of the Eskimo economy are given a high priority" (Burton 1955).*

Northern Affairs was particularly sensitive to public criticism of the living conditions of Canadian Inuit after international media relayed a sensationalized story about a group of Inuit starving to death due to government policies in the mid-1950s, and the agency began dedicating considerable time and attention to ensuring that the public image of Inuit was of happy, healthy people who prospered under fair governmental policies. Northern Affairs also created an Eskimo Research Section to conduct

investigations into the best means of educating the Inuit and helping them adapt to changing economic conditions by improving hunting and fishing techniques, encouraging greater use of local food resources, and projects such as handicraft manufacturing, whaling, codfishing, eiderdown gathering, and boat building. The Eskimo Research Section also planned the transfers of inhabitants from overpopulated and depleted areas to regions where game was more plentiful and/or where employment could be found. Relocation projects were also used as strategic sovereignty movements to cement Canadian ownership of the High Arctic.

### ***1953: A line through the Western Arctic***

While the actual locations of the DEW Line sites were under consideration, the government was weighing which aspects of Inuvialuit culture they wanted to preserve and what changes they hoped industrialization would bring to the North and its people. The central goal was clear as ever: avoiding Inuit dependency by guiding them to self-sufficiency. The industrial camps created new outposts and compelled significant numbers of locals to relocate while the government was still in the process of experimenting to determine whether they should focus on Inuit relocation to regions where there were more traditional resources so they could subsist or locations where they could find employment. The construction of the DEW Line, for many regions of the Arctic, made the decision for them.

In October of 1954, R. G. Robertson as Deputy Minister of Northern Affairs and National Resources penned a memorandum detailing the advantages of having all northern construction projects use as much local employment as possible. The most important reason was the steadily increasing population and the concurrent crash of the fur market. Moreover, Robertson argued, using local labor cut costs for government projects and contractors and employing local Inuit would reduce the number of relief payments that had to be made (Ferguson 1956).

As chairman of the Advisory Committee on Northern Development, Robertson said at a December 1954 meeting that the Department would prefer the more northern



option as a route for the DEW line. “The more southern route would pass through an area where there were many Eskimo who were not adjusted to contact with modern civilization” (Robertson 1954). Robertson dissuaded the planners from considering those areas by explaining the need to protect the wild game resources of the local Inuit and take their vulnerable immune systems into account, and also by noting that there would have to be many more limitations for the men building and maintaining the radar stations if they were adjacent to traditional villages.

These two different goals from the same man within months of each other are accurate reflections of official policy:

*Long Term Plans: Eskimos Affairs: Where primitive Eskimos in remote areas are relatively free from contact with white civilization, it is planned to leave their present economy as undisturbed as possible. In those areas where there is already permanent contact, integration with the white economy will be encouraged. Between these two extremes employment of Eskimo will be encouraged provided it does not interfere unduly with their normal life. It is also planned to diversify the Eskimo economy and to transfer families from unproductive areas to regions where game is more abundant or employment is available (Robertson 1954).*

Officially, the Inuit were not to be troubled by the military or construction companies. The DEW Line agreement, which Canada and the United States signed in 1954, was explicit: “The Eskimos of Canada are in a primitive state of social development. It is important that these people be not subjected unduly to disruption of their hunting economy...or other effects of the presence of white men which might be injurious to them” (Canadian and U.S. Federal Governments 1955). In reality, to succeed in building the entire DEW Line within the time frame desired, construction firms across the entire Arctic coast hired virtually any Inuit who asked for work. Six comprehensive conditions to govern the character of the contact with the Inuit were established in the treaty, and under these conditions the Canadian government accepted responsibility for

the management of all aspects of relations between the Inuit and the DEW Line (ibid).

The five-station prototype system in the western Arctic was successfully tested before the treaty was written, and the Canadian government presumably did not have the Mackenzie River Delta area in mind when they negotiated its protective aspects. Government representatives were well aware of the long and relatively sophisticated employment history of the region's Inuvialuit. As the collapse of the fur trade had clearly been harder on those more integrated into the cash economy, the government was especially concerned with alternative employment opportunities for them.

The path of the DEW Line did miss the settlements of Herschel Island, Aklavik, Holman Island, Read Island and others entirely – thus avoiding the majority of the Inuvialuit population in the western Arctic. This geographic distance was not, at least in the short-term, less disruptive to those nearby communities than having the radar station right in town may have been. Men from nearby settlements were recruited by the construction companies and flown to DEW Line sites (Ferguson 1957a). In Canada, few of the radar sites were built in traditional hunting and camping locations. Instead of jobs coming to the people where they lived, the people left their families and followed the work. In other cases, especially towards the eastern side of the Delta, men brought their families to the radar sites, set up camp, and found themselves in inhospitable areas that were often characterized by inclement weather and scarce wildlife, firewood, and other resources.

### **DEW Lining National Identity**

The arrival of industrial labor in the north forced a transformation of governmental responsibilities. Having accepted that a traditional lifestyle was out of the question in the areas affected by the DEW Line, Canadian officials turned their attention to the welfare of both employed and unemployed Inuit, their families, and the smooth operation of the mixed economy.

Relations between the northern administration and the Federal Electric Corporation appear to have been diplomatic, but on certain subjects the Canadian government was forthright and explicit as to their policies and priorities for Inuit

Canadians. This issue was exacerbated by the top DEW Line official with whom the Canadian northern administrators dealt with: Admiral Cruzen, Vice President of the Federal Electric Corporation. After Northern Affairs officials first met with Cruzen in 1956, Director F. J. G. Cunningham reported that “we had an interesting general talk on segregation,” when the subject of treatment of Inuit employees came up. “Admiral Cruzen told us frankly he is from the Southern United States and holds quite strong views for segregation.” Cunningham reported to Robertson: “We made it clear that we hold equally strong views against segregation and that what we said represented government policy... We made it quite clear to Admiral Cruzen that... we would not supply Eskimos unless they were treated in exactly the same fashion as the single white men...” (Canadian Department of Northern Affairs and Natural Resources 1956-57).

To fulfill their daunting new obligations, the Department of Northern Affairs created Northern Service Officers (NSO) to facilitate communications between construction crews, government agencies, and native people. The first six officers were appointed in early 1955 and it was generally understood that Northern Service Officers were to protect the interests of Natives and prevent any local difficulties from slowing the pace of construction. By frequent visits to DEW sites, the Northern Service Officers were to stay informed of local concerns as expressed by DEW operators.

Hired to represent the best interests of the Inuit and to encourage their participation in local government, the NSOs were also expected to maintain tight control over native/non-native relations. While practicable at the more remote DEW stations, these restrictions were unmanageable at the larger stations. Nevertheless, the NSOs attempted to minimize disruptions of Inuit life, and their primary responsibility was to secure the old way of life for those able and interested in pursuing it while providing alternative work for those incapable of leading a subsistence lifestyle. To this end, the NSO was to be aware of threats to game, especially due to construction or DEW operations (hunting was prohibited for DEW Line employees), and make Inuit aware of the need to protect game.

Leery that Inuit would be exploited as a floating labor pool for northern

contractors, the Canadian government's ideal was to ensure that Inuit gained only full-time jobs at the stations. At the same time, individuals who were selected for employment – single young men being the best candidates – were sent to distant sites where they could not have escaped without some difficulty. Their wages were deposited directly into trust funds managed by the local NSO until their job was completed, when their wages were deposited into a bank account available to the individual through the mail. More common was the transferal of the account directly to the appropriate local trading post, but the NSO often attached a semi-compulsory saving component. This system had several problems and quickly proved unsatisfactory when Inuit who wanted to spend the money they had earned put pressure on post managers.

The remote and vast field of operations had always made it difficult for Northern Affairs to ensure that every individual newcomer to the North was making the correct impressions on the Inuit. Guidelines for proper Canadianism were designed to provide the desired example for the country's northerly residents, and one requirement was a type of progressive industrialism. The Northern Affairs department went to the extent of proposing training for Federal Electric Company personnel in how to instruct Inuit for employment on the DEW Line.

The Department organized educational courses for Inuit so they could return to the North as a valuable labor source for the DEW Line and future industry. Much more than mechanical training, the courses were originally held outside of Edmonton, Alberta and were designed specifically to integrate the Inuit into standard white society.

The class descriptions make it clear what type of Arctic citizen the government wanted to mold. The Department of Northern Affairs remarked that the purpose of the courses, with emphasis on widely applicable skills and “doing” rather than abstractions, was to render the student immediately and generally “useful.” Other stated objectives included “foster(ing) an understanding of the need for, and hence an appreciation of good workmanship” and “promot(ing) as much as possible a feeling of satisfaction and achievement that comes from the ability to perform jobs to recognized standards of efficiency and workmanship” (Canadian Department of Northern Affairs and Natural

Resources 1957b). These courses were, the Department explained, “the means for assisting Eskimos and others in the NWT to make the transition from their own relatively primitive cultures to a more complex one” (ibid).

The socialization aspect of the courses included a number of field trips to show the trainees as many aspects of the modern southern community as possible (Canadian Department of Northern Affairs and Natural Resources 1956-57). Aspects of “normal” white society that Administrative Officer R.A. Gould felt any Canadian citizen should appreciate included the fire department, the flour mill, the laundry, the frozen food lockers, the brewery, and the police station. The course instructors considered inviting social work students from the university to observe, to participate, and to bring the Inuit into contact with campus social activities. Trainees were allotted a sum of money to buy clothes in the city – at the Hudson Bay Store under the direction of their Northern Service Officer. Dealing with the publicity that the course was sure to attract was a central concern, and whether to allow English-speaking Inuit to be interviewed for TV and radio was dictated by demands that the interview be outlined beforehand and the NOS accompany the trainee. Ensuring communication between trainees and their families required absurdly paternalistic instructions: “Someone should be responsible for seeing that all Eskimo trainees write their families at specified regular intervals” (ibid). It was also policy to immediately check on those families who did not write back and encourage them to do so every week. One NSO was determined that the Inuit not be left alone and believed they would need instructions on basic aspects of southern civilization (e.g. operation of traffic lights) if the administration was to avoid “embarrassing or even unpleasant situations” (ibid).

The coordinator of the classes felt strongly that accommodating the students in boarding houses where they could “associate with whites in their normal way of life” (Taylor 1957) was a critical aspect of the training program. Special efforts were made to teach English to the Inuit trainees, “which will have far-reaching effects of the gradual integration of the Eskimo...[and] into the wage earning economy of the Northwest Territories” (ibid). This type of vocational training, it was thought, would provide a

source of 'lead hands' and foremen for future industrial and defense development in the North. Similar arguments defended the high cost of vocational training for potential Inuit DEW Line employees by emphasizing that while the cost of such training was high, it would be "self liquidating as the high earning power of equipment operators will result in substantial recovery through income tax payments" (Taylor 1957).

Delta resident Sammy Lennie's father attended one of the training courses outside of Edmonton and, by Sammy's account, is evidence of the long-term financial benefits to industry and government. The elder Lennie worked on the DEW Line sites around the Delta for twenty years with almost zero absenteeism, yet in retirement has never been able to collect a pension from that work. If the elder Lennie opted out a pension plan when he started employment in the mid-fifties, he was not aware of it. Sammy himself put a great deal of effort into trying to sort out his father's pension and found that one issue was whether it was the U.S. or Canada that would pay it.

For guidance, Canadian northern administrators carefully studied the situation of Inuit employees on the North Slope of Alaska Territory, where the U.S. Navy had employed them in the large PET 4 oil exploration projects for several years. The Canadian officials circulated American military reports on the subject which described how, with time and patience, policies that promoted "maximum utilization of Eskimos" were officially determined to provide a "potential source of man-power that will be invaluable to our future military efforts... which, if utilized to the full extent, will result in material savings to the Government" (Roberts 1952).

In western culture, if anything defines an individual's identity and values more than their occupation, it is their house. The issue of constructing housing for Inuvialuit DEW Line employees created a logistical and ideological quandary for the northern administration – much of it revealing evolving notions about Canadianism. To complicate matters, the company in charge of building the radar sites, the American-based Federal Electric Company, was often at odds with the Northern Service Officers and the Northern Affairs administrators regarding housing responsibilities. The construction companies,

although they did not want their Inuit employees living with white employees, did want the Inuit to make camp near the site. A principle reason was that the Inuit would be available to unload planes during off hours if they lived adjacent to the site. If they lived several miles away in a Native camp, an extra hour was required for an employee to transport the Inuit back and forth. The government, on the other hand, was concerned that the children of Inuit DEW employees would fail to attend school if they had to make the commute from the radar sites, and also that if Inuit employees were taken out of their town sites they would experience difficulty taking part in the social life of their community. Head of the Arctic Division Ben Sivertz attempted to convince DEW construction officials that moving Inuit families near the radar sites would result in disruptive non-Inuit visitors and require restrictions, and that even worse trouble may result if women were living close to the station (Sivertz 1958a).

The Northern Affairs department eventually ordered several hundred 'Structofoam' and similar prefabricated units for DEW Line employees, but not before engaging in serious debates over the quality of the structures and the long-term implications for Inuit identity. Ben Sivertz, chief of the Arctic Division, objected strongly to raising the overall standard of living incrementally by building more but less expensive homes. He clarified the reform agenda by opposing this seemingly generous policy:

*Would we be wise to house Eskimos and their families in such sharply inferior accommodations...? What would be the effect on (a) the Eskimos (b) other DEW line employees? We have always gone on the assumption that it is essential to provide housing that accords with livelihood, - and not based on what the Eskimos might be willing to accept in light of his background...The most serious and inimical effects on the whole concept of Eskimo development, acculturation, protection and emancipation could flow from this ready acceptance of the idea that Eskimos can be made to accept any standard however low...- never mind putting the wage-earner onto a plane where he can hold his head as high as the white man...Pulling down the standards of housing for wage-employed Eskimos is dangerous to our most important objectives" (Sivertz 1958b).*

The central issues of Inuit/Canadian identity dominated the first Arctic Conference of Northern Service Officers and other members of the Arctic Division in 1957. The northern administrators and NSO discussed “how Eskimos can be made to feel that they are really a part of the modern communities in which many of them now live,” and how they could be made to feel a part of the *national* community (Canadian Department of Northern Affairs and Natural Resources 1957a). Other questions included:

- What can be done to encourage the Eskimo to take part in managing his own affairs?
- What does the Eskimo want out of life and is he being helped to achieve his aims?
- Is Eskimo culture being undermined?
- What is the future of the Eskimos and of the land in which they live?
- What do they think of us, the invaders from the south?

Writing to Admiral Cruzen of the Federal Electric Corporation in 1958 after construction of the line was finished, Deputy Minister Robertson noted very politely that the terms for Inuit employees were being met, morale on the line was high, and the government of Canada was gratified by the efficient operation. Robertson admitted that it would be impossible to avoid minor incidents in such a pioneering operation, but he diplomatically reminded Admiral Cruzen that “the Government of Canada [was] determined that Eskimo people should have full opportunity in common with all other Canadian citizens to develop their talents” (Robertson 1958). Robertson was writing to delicately address two matters where the corporation was not acting according to the agreement: Inuit were to have the same holidays as other Federal Electric employees (two weeks per year) and the dependents of the FEC’s Inuit employees would be provided with lateral transportation by the F.E.C. when switching sites, for annual leave, or to visit the nursing station. In referring to these issues, Robertson stressed that “there is in this country a wide and keen public interest in DEW line activities as they affect



Canadians and a similar interest in Eskimo affairs...From previous experience we know this project for Eskimo wage employment can be successful. The consequences of it turning out otherwise would be catastrophic for the Eskimo people concerned and I wish to leave nothing to chance in arranging what is necessary” (Robertson 1958).

Although the Department of Northern Affairs had not sought out researchers to analyze the impact of the DEW Line, in 1956 they accepted Jack Ferguson’s proposal to do so. By all appearances, the administrators who oversaw his work directly were keenly interested in the young anthropology student’s observations and recommended his letters and reports to their superiors. The department funded Ferguson to return to Tuktoyaktuk in 1957 to observe how the community was adapting to the radar station. Northern Affairs, however, failed to publish Ferguson’s final report. Writing decades later on the militarization of the eastern Arctic, Kevin McMahon noted wryly that Ferguson’s account, the only report ever done on the DEW line’s impact, was kept in the rare documents section of a library in Ottawa (1988: 63).

The same year they placed Ferguson’s unpublished DEW Line report on the back shelf to gather dust, Northern Affairs attempted to mitigate widespread negative impressions that southerners tended to have about the Inuit with a small publication intended for visitors and workers coming to the North entitled *This is the Arctic*. The small book’s cartoon cover depicts happy Inuit with Quonset huts in the background. The people of the Arctic are depicted wearing parkas and mukluks, chasing wolves with pistols while sporting sunglasses and holding fashion magazines as they take pictures of a confused white man debarking from an airplane. The government maintained the positive ‘creating initiative’ motto: “None of this means that the Eskimos are being pampered,” the book cautioned. “Spoon-feeding is definitely out; they are simply being helped to help themselves. The Eskimos are not wards of the state and they are not being treated as wards. They are full Canadian citizens, and as citizens the day may come when Eskimo administrators will direct Arctic affairs and when an Eskimo will sit in Parliament at Ottawa” (Phillips et al. 1958).

In the publication, the government struggled through concepts of cultural relativity: "Make no mistake about it, in some ways the Eskimos are more civilized than we are, and always have been." It also disregarded the intricacies and depth of Inuit culture, fallaciously described pre-contact Inuit as "too preoccupied with finding food to develop anything but the simplest social or religious life" (Phillips et al. 1958) and glossed over and euphemized the profound impacts of the DEW Line and other industrialization of Inuit homelands.

By 1960, official Canadian government policy was evolving away from compassionate intervention and towards a system in which the Inuit would have a greater say in decisions about their lives and homeland. This new principle was referred to as 'guided self-determination' and included the development of Inuit community councils and related initiatives, all directed to integration within the dominant liberal democratic structures of Canadian society. Education was envisioned as having an enormous role in the new approach, and the DEW Line played a significant part as well. Government officials believed that long-term employment could create a secure middle or elite class in Inuit communities, especially if people were educated as to how to manage their money according to western ideas of investment. Inuit community councils were designed with the idea that they would give people real control over how their lives were managed.

### ***Conclusion***

On either side of the border, unprecedented governmental intrusions into the lives of Inuit were undertaken during the early years of the Cold War. While emerging from divergent ideologies, scientific and humanitarian policies alike were justified by the new strategic significance of the Arctic. In Canada, the legacies of neglect and non-interference had been largely discredited and replaced by policies that had other unique implications for the Inuvialuit of the western Arctic. In the U.S., the government was concerned with the physical and psychological health of Inuit as far as such matters affected defense.

In Alaska, anthropologists working for the military barely discussed the military's

impact - despite evidence that the military's impact was significant. Nonetheless, their books are beloved and invaluable additions to northern ethnography. Ferguson, on the other hand, received funding and extraordinary support from a government agency for his study. While he was free to report candidly on his negative impressions of the military industry and his report was certainly read by some policy makers, it was never made available to the public. Northern Affairs did opt to supply men heading north with copies of "This is the Arctic." Both situations highlight the value of the work by anthropologists who were both able to comment on the military and have their work published, including Norman Chance and Diamond Jenness (the latter's status, by that point, was such that no one would have been able to repress his writing).

Canadian geographer Matt Farish's detailed investigation into the Cold War projects that actively engineered Arctic terrain found that Canadian and American interests and presence in the Arctic during the Cold War "reveal far more continuities than disparities because of consensus or a resigned, acquiescent Canadian proxy" (Farish 2006). While certain disparities have emerged in subsequent decades, the exploration of the how the DEW Line shaped local communities to which this discussion now turns corroborates the theory that most differences were due to communities and individuals, rather than nations.

## **Chapter Four: DEW Line Infiltration of Arctic Society**

### ***Introduction***

Catherine Lutz, in her history of Fayetteville's militarization, found that information on the social change experienced by the previous inhabitants of the land that became Fort Bragg is absent from most accounts of homefront mobilization. By her estimation, the creation of the base eventually transformed the entire surrounding region of South Carolina. There is, Lutz says, "little accounting of the human *deconstruction* the preparations and war itself involved" (Lutz 2001).

Despite the fact that it occurred on the other side of the country, the social change wrought by the construction of the DEW Line had much in common with that wrought by Fort Bragg. These bases entailed: a mass migration into the country, a reorientation of race relations, new ideas about the roles of women, an unmaking and reshaping of work lives, and a new sense of what it meant to be part of the United States in the international scheme of things. However, in isolated arctic communities, the interactions and relationships between individuals constituted a large part of the basis for social legacies. Despite similarities with Cold War bases elsewhere, defensive radar installations in the Arctic, staffed mainly by civilian contractors, resulted in their own particular brand of social relations. This section of the dissertation explores the social change created by the DEW Line by tracing some of the attitudes both groups held towards one another and the relationships that evolved between DEW Liners and Natives.

As described in the previous section, people in the western Arctic were familiar with the military and keenly aware of World War II. Their understandings of the DEW Line, however, were shaped far more by the bases' immediate local consequences than by any knowledge of the geopolitics of the Cold War. Furthermore, even though people are now intimately familiar with the sites in their own regions, they were never presented with information regarding the much larger system of which their communities were a part. Knowing what they do now about the impact one site can have, understandings of

the entire project are still primarily shaped by the localized impacts those bases must have. However, as with almost every aspect of this exploration, an individual's attitude on the extent of the radar system and other subjects is largely based on his or her own experiences and personality.

There are a few critical and widely held attitudes that have shaped relations and attitudes among Iñuit and DEW Liners. Iñuit respect for and knowledge of the land is a central aspect of their world, while disrespect for the environment and ignorance of how to live with it have been normal for many newcomers to the North. The situation presented by the Cold War and the propaganda of the era created disrespect of the Arctic environment at unprecedented levels. Preconditioning DEW Liners to battle an enemy environment while reinforcing notions of arctic isolation, remoteness, desolation, and hardship did not bode well for interracial relations. As articulated by one modern Iñupiaq writer (Higbee 2010), disparagement of the land by outsiders is particularly insulting and hurtful to Iñupiat and insidiously damaging to the self esteem of young people.

Associated with tanik ignorance is delight in tales of the comeuppance of DEW Liners who were particularly disrespectful of the land or local knowledge. The situation also led to complicated feelings that the Iñupiat helped the military men survive, and to an increased sense of bitterness and betrayal at subsequent military exploitation and abuse of the land and people.

Some taniks believed that the money brought by the DEW Line was a panacea that more than compensated for any inconvenience and that raised the Iñuit out of their desperate subsistence lifestyles. At the other extreme, there were taniks who saw the influx of money and employment leading to significant social disruption in the communities and bringing about the death of native culture. In complete contradiction to either of these totalizing ideologies, the Iñuit do not recognize the DEW Line as having had a significant economic impact or of having fundamentally changed their culture. This research found that the DEW Line seems to have had had short-term economic impacts on many individuals during construction, long-term economic impacts on a few individuals for the decades it operated, and appears to have directly affected the

economic and logistical viability and possibly the survival of both Kaktovik and Point Lay as communities. However, a central understanding that emerged from this research is that while it might seem economically important in these ways, many Iñuit barely acknowledge it, appear rarely to think about it, and in general do not ascribe any special importance to financial causation and their own recent economic history.

Local economies and society have been more influenced by individual DEW Liners and relations than by the military jobs themselves. Of course, it was those jobs that brought the people. However, in contrast to the oversimplifying discourses of nationalism or black and white ‘official lies’, most Iñuit do not conflate individuals with the institution for which they work. In ways both obvious and subtle, individual DEW Liners and the society imported by the bases have infiltrated the socioeconomic and political histories of communities adjacent to the sites. By fathering children with and/or marrying local women, DEW Liners have even infiltrated the gene pool in Arctic communities. This can be considered militarization according to some understandings of the term, but a more detailed investigation avoids using ‘militarization’ as yet another totalizing ideology that ignores the details and reality of people’s lives.

Although it is not as satisfying as the story of the racist station chief who was saved, another DEW Line tale tells us about the association between the DEW Line and alcohol. The background information for this story is the Iñupiaq word for one of the most common ducks on the North Slope (translated as ‘old squaw duck’ in English<sup>29</sup>): *aahaalic*. Like many Iñupiaq animal names, the name is based on the sound of the duck’s call. As the story goes, a heavy drinking DEW Liner had consumed so much alcohol that he passed out alone in the tundra. He was aroused out of his stupor by someone screaming at him, but he could see no one else around. He reeled about the tussocks, covering his ears, thinking he was losing his mind. Still, the screechy and otherworldly voice continued to berate him for his addiction: “Alcoholic! Alcoholic!” Some versions of the story end here, but other versions include a postscript: the DEW Liner had a

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<sup>29</sup> *Clangula hyemalis*

breakdown and an enormous epiphany out there on the tundra, and when he returned he never drank again.

This is clearly a less enjoyable story, and not because it may not be true – a good joke can be very gratifying. The story hits too close to home to be a favorite with many people. When people laugh about the amount of alcohol brought into Arctic communities by the DEW Line, it is a more bitter and ironic humor that is at play.

Most of the Iñuit interviewed for this research did not think very highly of the social legacies of the DEW Line, despite the gift economy and benefits to surrounding peoples military industrialization is largely assumed to bring. The direct economic benefits have been discussed: short term for many, long term for few, and considered overall unimportant. A supposed side benefit of the employment was that it would provide skills and knowledge that would prepare Iñuit for other work. Although Etok<sup>30</sup> concurred with this, no other interviewee believed that valuable skills were a notable social legacy of the DEW Line. The DEW Line was also seen as beneficial because of the health care it made available to local people. Again, no interviewees had considered the emergency medical attention at the sites as especially valuable health care, and some considered it ironic that health benefits would be associated with the DEW Line.

The DEW Line imported an example of male-dominated society and provided dance partners, boyfriends, and husbands for young women in adjacent communities. The DEW Line had other impacts on women whose husbands were absent to work at the sites and who were left to care for their families without a hunter (or firewood gatherer/childcare provider/emotional support/etc.). Women in Kaktovik are proud of the liberated women who hunted on land and sea and provided for their families while their husbands were gone.

### ***Construction/Invasion***

Several waves of military development swept up on the shores of the western Arctic during the Second World War and subsequent decade. In Barrow, people

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<sup>30</sup> Etok (Charlie Edwardsen) is a well known Iñupiaq political activist from Barrow. His radicalism and struggle against land claims is depicted in “Etok: A Story of Eskimo Power” by Hugh Gallagher (1974).

remember feeling as though they were being invaded with the arrival in August of 1944 of crews and construction equipment to build the base camp for PET 4 operations. In 1947, the Office of Naval Research prevailed upon the Office of Naval Petroleum Reserves to provide logistics to establish NARL in Barrow. The same year, the Kaktovikmiut living on and around Barter Island experienced an event similar to Barrow's when the Army arrived to construct an airstrip on the spit where the village was located. Kaktovik elder Daniel Akootchook's short term memory is failing, but his long term memory is strong: "We were attacked. Yeah, all the equipment, all the tractors..." (May 5, 2009).

MaryAnn Warden was four years old in 1947 when the imposing World War II LSTs (Landing Ship, Tank) pulled up to the spit at Kaktovik and dropped their ramps. Numerous Caterpillar bulldozers, other heavy equipment and supply trucks rumbled out onto the spit in front of the astonished villagers. The military communicated to village leader Andrew Akootchook, the only resident who spoke English, that the village had one day to move. The Kaktovikmiut at that time consisted of the extended, 50-member Akootchook family who lived on the spit in efficient and warm semi-subterranean sod and driftwood houses that could not be relocated. Many other families lived and traveled in the immediate environs of Barter Island, a historic gathering and camping location. In addition to their homes, the residents' food was stored in valuable ice cellars. It is not uncommon for several members of a family to work on digging an ice cellar for a year before it is the right size. Large enough to hold as much meat as a family could catch and eat; a *sigluraq* also requires significant annual maintenance. Obviously, these could not be moved and there was nowhere to put the food that was stored in them. The Kaktovikmiut took all their moveable possessions and moved into tents up on the bluff where the military directed them and then built new wooden frame houses out of the dunnage, packing crates, and other material brought by the military. The old village was



bulldozed, the airstrip was built, and a few years later a large hangar was built right over the village site.<sup>31</sup>

In was the winter of 1952-53 when the elements of a prototype radar system were shipped to Barter Island, Alaska. The first two test sites were to be Barter and Komakuk Beach, in the Yukon Territory not far from the Alaskan border. Canadian cooperation on the project was needed, and the Canadians agreed to the construction of the test system once the U.S. offered to provide the financial support. Both Herschel Island and Aklavik were considered as locations for a Canadian site, but the more remote Komakuk Beach (BAR-1) was finally selected (Neufeld 2002). BAR-Main, the largest DEW Line site in the entire western sector of the DEW Line, was constructed on a higher area roughly in the middle of the small island, directly in front of the fresh water lake. Cat trains hauling construction equipment, supplies, and a mobile camp with 50 workers headed east from Barter Island towards Demarcation (Pattaktuq) and Komakuk. Ground preparation involved hauling large quantities of gravel from Pattaktuq to Komakuk (50 miles), and a road that is still visible today was cut into the tundra. Once sites had also been built at Demarcation (BAR-A), Stokes Point (BAR-B), and Shingle Point (BAR-2), this first integrated unit was tested (Neufeld 2002). After the Air Force evaluated the prototype, the draft DEW Line agreement was signed with Canada in the spring of 1954.

In Point Lay and Wainwright, therefore, the “invasion” was delayed until construction began on the rest of the DEW Line in the summer of 1954:

*“We didn’t know anything about it until the ships landed at Point Lay. 1954. For some reason that year never left my mind. Because that’s when all the big changes came, and the people started to be trampled down. All we could do was watch them. With all these big landing craft and them tractors all over town. Like what you call Normandy invasion.”-* (Agnasagga, Sep. 13, 2009, Wainwright) (fig.17).

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<sup>31</sup> University of Alaska Fairbanks Anthropology MA student Beth Mikow’s thesis treats the three forced relocations of the Kaktovikmiut in great detail as the case study for her research on relocations in Alaska, which in turn is part of a circumpolar BOREAS project entitled, “Moved by the State.” Fritz and Mikow collaborated on fieldwork and interviews in Kaktovik in May 2009.



Figure 17: George Agnasagga<sup>32</sup>

Sammy Lennie's parents, originally from Tuktoyaktuk, traveled to Banks Island in 1954. When they returned to Tuk the following year to the site where Sammy's uncle and auntie and other families had lived, they found that the houses were completely gone and their family had moved to the main village site nearby. As in Kaktovik, a village site had been subsumed by construction of BAR-3, the Tuktoyaktuk Auxiliary DEW Line site. "They just bulldozed their house and everything that they owned" Sammy explained. "Get out of the way" (Lennie April 3, 2009).

Karen Brewster's conversations with Harry Brower (2004) trace life in Barrow when PET 4 exploration was shut down in 1953 and the camp was used for the construction of the DEW Line. Buildings were constructed in Barrow and dragged to their final locations around the north Alaska coastline as far as Cape Lisburne and Barter Island. Harry Brower and other Iñupiat helped build these pre-fabricated shacks on sleds, called wannigans, and worked on the Cat trains - Caterpillar tractors hauling giant sleds -- to move them to their remote sites. The BAR-Main site on Barter Island, for example,

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<sup>32</sup> George Agnasagga was born in Point Lay and now lives in Wainwright. His brother, Amos Agnasagga returned to Point Lay when the community was re-established in the early 1970s.

originally consisted of three large trains of buildings: one was the residential hall which included the rec hall and the mess hall, another was the radar and other technical equipment building, and the third contained the power plant.

Despite their familiarity with the military, the suddenness of the DEW Line's arrival, the incredible rapid pace of the work (the entire line was completed in three years), the large scale of the camps and the many modern, technical products was astonishing to most local people. It was an event that would have astonished most people in non-indigenous communities in locations far less remote than the Arctic. Inuit were more than concerned as they saw camps, houses, and graveyards destroyed or damaged by the newcomers. The lack of local consultation and the consequent failure to attend to issues of local importance affected people deeply.

This absence of notification, much less consultation, permission, and advice about the location of military bases, is a key factor in the militarization on the land of small, indigenous or marginalized populations both within U.S. borders and globally. These cases, and many other aspects of modern militarism, are made possible by adherence to what sociologist C. Wright Mills called 'a military definition of the situation' (Mills 1956). Under that paradigm, everything the government does is justified in terms of its contribution to the military defense of the nation and its interests. Not only do the military's needs take precedence over all others, there is not even a perceived duty among military policy makers to *inform* local residents of military activities. The projected notion is that it (military activity) goes without saying, because no one would ever question it. For the most part, it appears that this strategy usually works.

When construction on the DEW Line began, many people on the Arctic coast did not know what the purpose of the buildings and towers was and, according to several informants, they simply did not care. Robert Alexie, Gwich'in elder from Aklavik who currently lives in and runs the cultural campground in Fort McPherson, worked building the site in Tuk and explained that neither he nor anyone in the community knew what it was about.<sup>33</sup> Alexie explained that he was aware they were preparing for a war, but all he

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<sup>33</sup> "Well they didn't know! They didn't know what it was about. [] No, they didn't know, people didn't

knew is that buildings called the DEW Line were being constructed. He discovered later, after construction, that it was for defense. Nellie Arey of Shingle Point and Aklavik had a similar experience: she explained that all she knew was that her dad worked there, but it never occurred to her and the other children to ask him what they were building.

Richard Gordon (Herschel Island/Inuvik) said that people did not understand the premise of the Cold War and the purpose of the DEW Line in the beginning, but as time went on and they became more involved they began to understand, from the aboriginal standpoint, where they stood in the global scheme. In Wainwright, Betsy Tulugak recalled that she had been aware that the DEW Line sites were working there to “keep away enemies,” but she was not sure who the enemies were.

MaryAnn Iqilan Warden of Kaktovik does not remember much talk about “the wars” but said the community knew that the DEW Line sites at Barter and other places along the coast were being used in a conflict. “[I]t was the times, they were having problems with Russia and they never explained anything to us, they just came and invaded the place. And what can we do, we are part of the U.S., I guess” (Warden, May 28, 2009, Kaktovik).

### *An Arctic environment that “feasts on lost men”*

The Iñupiat were not the only people who viewed the construction of the DEW Line as an invasion. The physical environment played an important role in the shaping of DEW Line society since the Arctic was seen as a strange new danger that the military had to conquer for the mission. The land itself was personified, vilified, and referred to as “the enemy,” which was undoubtedly psychologically insidious for impressionable workers. The lack of appreciation for the environment was a difficulty in relations with the locals both because the extreme climate rendered the Iñupiat more exotic in the minds of the southerners and because displays of distaste for the Arctic environment can be extremely insulting to Iñupiat. Furthermore, while Iñupiaq ability to survive in the Arctic instilled

awe and admiration among many DEW Liners, reluctance to depend on Natives for their local knowledge cost some DEW Liners in efficiency and in respect from the locals.

The first sentence in physician Gareth Howerd's memoirs referred to a journey from "the most desolate spot on earth that is inhabited by men today" (Howerd 1960: ii). Doctor Howerd described the regular occurrence of "Arctic cold heart attacks" (1960: 84), an alarming health problem that would prevent a man from ever being hired to work on the DEW Line again. The doctor's characterization of the environment was kind compared to that of industry, for which the climate was a veritable Cold War villain.

A few of the main contracting corporations (Western Electric Company, Bell Telephone Laboratories, and Federal Electric) made promotional films for the DEW Line during those heady early days of the Cold War (fig. 18). When and if the industry films depicted Inuit, they were clad in fur, riding dog sleds, and were summarized in a sentence: "The Eskimos too were recruited, and they did a good job" (Western Electric Company 2009). Western Electric's depiction of the environment, if ever taken seriously, would have had a negative influence on morale and relations with indigenous inhabitants: "The Arctic: desolate, savage, remote... [] Not too bad for caribou or polar bears, but no place for human beings." The films justified the mission with animated red arrows racing over the Arctic Ocean and exploding into massive mushroom clouds covering the U.S.: "This roof of the world holds a stark menace to our country, to our very existence" (Western Electric Company 2009). They also described the courageous men who had overcome great environmental difficulties to build the line: "Men had to conquer that unknown frozen wasteland and transform it into a vital outpost of western civilization" (ibid).



**Figure 18: Film scenes from DEW Line Story (Western Electric).**

Mack Truck Company (1955) stated that its film, *Bulldog Convoy to the Arctic*,<sup>34</sup> was “a record attesting to the heart and spirit of man and a testament to his machinery.” The route to the Arctic was full of raging rivers that “clutched hungrily” at men as the vehicles broke through the ice and churned through riverbeds. The Mack trucks had tractors 12.5 feet wide with 65 foot-long trailers and 600-horsepower diesel engines. Loaded with supplies for the DEW Line, the trucks weighed 330,000 pounds each. Caterpillar tractors formed an advance trail crew that “carved” and “gouged” the route out of mountain ranges that still, at least for white men, had no names. With the cold winter conditions, the diesel trucks were simply left running 24 hours a day, and some trucks ran for months at a time without being turned off. The convoy traveled amid “grotesque statues” formed by snow on trees, and when it finally reached the Arctic, the narrator announced, “this was a place where man is closer to his God” (ibid). The convoy rolled out onto the Arctic Ocean, which “cracks and all but gobbles you up.” There, the “seal-hunting Eskimo” investigated the trucks and “agreeably” remarked “many dogs, many dogs.” Mack Truck (1955) interpreted for the viewer: “that’s tops from an Eskimo!”

Robert Alexie remembers that the road carved out of the mountains by the Mack Truck convoy was his first introduction to the DEW Line in the mid-fifties. Traveling the traditional river route from Aklavik to Dawson, Robert and his father were portaging from the Head River to Blackstone and came across a large new road transecting their traditional path. They were further surprised to find what Robert called a very big sleigh with bars on the road, and he later saw the same kind at the DEW Line<sup>35</sup> (Alexie, July 6, 2008, Fort McPherson, NWT).

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<sup>34</sup> The Mack trucks were designed specially for this mission. They were shipped to Valdez, driven to Circle on the Yukon, then blazed a trail across the sub-Arctic and Arctic mountain ranges and McKenzie Valley Delta to the Arctic Coast.

<sup>35</sup> The truck and tractor convoys to supply the DEW Line have left “long-lasting scars through Vuntut National Park and the Old Crow Special Management Area.” For more information on the environmental legacies of the convoy, see: <http://yukon.taiga.net/vuntutrda/history/explor.htm>

### ***DEW Line Recipe***

The men who were imported from the States, southern Canada or other parts of Alaska constituted the human side of the bases and created the distinct society that was created by the DEW Line. It was a unique society due to the DEW Line's improbable mixture of people: local Natives; white-collar civilian radar technicians; non-radician site personnel (including college students enjoying high-paying summer jobs); rowdy sourdough Cat skimmers and construction workers; and a few inconsequential military personnel.

Most previous newcomers to the Arctic – whalers, traders, missionaries, and police or other government officials – came with agendas that directly involved the Iñuit. The DEW Line's importation of numerous tanik DEW Line workers, however, created novel situations of cultural contact. In the early years of the Line, many sites were very strict and tried to prohibit contact between DEW Liners and villagers although this varied greatly by site depending on the station chief's prerogatives. Tanik workers were not significantly involved with the Iñuit community other than maintaining acquaintances with fellow Iñuit employees. Other than as reliable labor (and in many cases for their local knowledge), the DEW Liners did not seek anything from the Iñuit. Compared to whalers, traders, and missionaries, these friendly but impersonal and professional relationships constituted some of the most neutral relationships the Iñuit had ever had with taniks.

Reflecting on the differences between DEW Liners and other Taniks who have come north, Etok (Charlie Edwardsen) of Barrow showed his very soft spot for DEW Liners (and NARL scientists with whom he worked a great deal). While the oil industry brought “rednecks” for whom he has intense scorn, Etok described the people who came up with the military with a shrug: “They were *Taniks*. They were white people” (Edwardsen, April 14, 2009, Fairbanks). This sentiment, which will be discussed at greater detail in subsequent sections, seems to extend to the early, military-led exploration of PET 4. Those operations depended extensively on local knowledge and local labor. The sentiment is largely due to an understanding that military personnel were

*assigned* to their positions in the Arctic and did not come there by choice to profit off of the land by removing resources perceived by many to belong to the Iñuit. This is in sharp contrast to understandings about more recent oil development.

The *tanik* DEW Liners and the attitudes they projected towards Natives are to some extent indicative of mainstream American and Canadian worldviews at the time, but more importantly they illustrate the specific DEW Line society that was imported and was itself shaped by the Iñuit people and the arctic environment. Unsurprisingly, information created for public consumption by the military and its industrial partners differed starkly from memoirs or other DEW Line documents that were less concerned with public relations and defending the mission. Significantly different perspectives are also observed depending on the class or job of the individual: the memoirs of a sourdough heavy equipment operator convey attitudes and knowledge about the Natives and the radar project that differ markedly from those of radar technicians, college-aged employees, or a DEW Line physician. Fortunately, the DEW Line cultural context included a higher percentage of characters than mainstream U.S. or Canadian society and there was no general attitude emitting from the radar sites.

At just 19 years old, Hal Phillips was the youngest man on the entire crew when he was hired by Federal Electric and went up to work at Point Lay and surrounding sites in 1954 (fig. 19). Hal was a radar technician (a “radician” as they were commonly known on the DEW Line) who specialized in lateral communication. He was there while the sites were being constructed and in the earliest years of operation (until 1959). Hal has a radician’s way of describing just how long ago he was there: he explained that transistors were not even in use on the DEW Line yet when he was there – they hadn’t been *invented* yet. “Everything was vacuum tubes!” Hal considered his years on the DEW Line as some of the best of his life – he loved the job and he was thrilled to work and socialize with Iñupiat. He took every opportunity to go hunting with them, attend community dances, and, whenever he was in Barrow, attend Sunday service at the Presbyterian church. In the days before the Marine Mammal Protection Act or other restrictions (“I don’t even know if we were allowed to hunt”), Hal was able to go beluga hunting with his co-worker



Warren Neakok in a 16 foot skin boat or help out when the Ifupiaq men shot 12-15 caribou at a time (Phillips, Dec. 13, 2006, Texas City, Texas).



**Figure 19: Hal Phillips working on the DEW Line in the mid-1950s.**<sup>36</sup>

The way Hal characterized it, there were three main types of people that ended up working as DEW Liners and from his vantage point there was a fair amount of corporate cultural differences at play as well as the Cat skimmers and the military. Western Electric and Federal Electric were the two main contractors for construction and maintenance of all the technical aspects of the sites. According to Hal, the employees of Western Electric were almost exclusively long-time company men who had been with Western Electric for years and were thoroughly invested in that corporation. Hal did not know of any Western Electric person that wasn't married, and most of them had children. The Arctic was not the job location they were hoping for and they probably could have refused it, but they were loyal to the corporation. "It was almost like they were assigned to go up there and do this job – in other words, with a couple of exceptions, they didn't enjoy it much."

Federal Electric had a very different culture: it was newly formed and made up largely of much younger men like Hal, who had gone straight from a technical institute to the DEW Line training institute in Streeter, Illinois, before being sent up north. Hal estimates that only half of the Federal Electric men had family. Anthropologist Jack Ferguson had his own take on employees of Federal Electric:

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<sup>36</sup> This photo is courtesy of Hal Phillips, who took thousands of pictures and reels of film during his years on the DEW Line. Tragically, all the film and most of the pictures were destroyed in a house fire.

*"I don't know how to describe the Federal Electric personnel. I'll start by saying that they are strictly indoor types and end by saying that they have been selected on the basis of lack of personality. Evidently the personnel mangr of this co. seems to think that the colourless types are less likely to become "bushed" (sic) (Ferguson 1956).*

The third group was the Cat skimmers, who, as Hal described them, “were guys that go out and work hard and make a lot of money and spend it.” Cat skimmers and construction workers were the classic sourdough Alaskan camp worker, and many had been working for years in PET 4 and knew the lay of the land.

Bob Pittenger hitch-hiked up to the Territory of Alaska in 1946, started off as a cook for the Naval oil exploration teams in Barrow, and worked his way up from cat skinner to equipment superintendent (the highest paid man on the project). Pittenger traveled between and worked at all of the DEW Line sites on the north slope of Alaska until 1964. Pittenger’s memoirs contain almost no commentary on any of the larger events and issues of the day (i.e. statehood), but plenty of information on the transformation of the Arctic environment by tractor-drawn trailers (cat trains) and the significant role of alcohol in the everyday lives of the working men on the North Slope.

Under intense pressure to get the main camp at Barter Island ready for several hundred men by the first of the year, Pittenger was sent to work with a very small crew of equipment operators and construction workers. “For some reason, only a few people could be hired until the first of the year” Pittenger wrote. “They could hire all the Eskimos who lived at the village they wanted to... [] We never could have accomplished it without the Eskimos” (Pittenger 2000: 108).

Bob Pittenger relied on Iñuit for both their technical ingenuity and their local knowledge. He remembered hiring a “full-blooded Eskimo” as his first choice for lead man on a cat train despite what anyone else thought. “He never let me down. I was the only foreman to always have at least one Eskimo with me” (Pittenger 2000: 116). Since the Air Force was the responsible agency for the entire radar system, it was to military auditors that Pittenger had to defend his work methods and extra Iñuit employees. The auditor demanded to know why Pittenger’s water wagon crews needed an Iñuit guide

every time they went to get water. “You don’t send men out in sub-zero weather by themselves!” was Pittenger’s reply. “Any accident and they’ll die” (2000: 141).

### *Saving the military*

*Stacey Fritz: So, do you think that people in Kaktovik felt safer having the DEW line here?*

*Nora Jane Burns: Ummmm, I think they were safe 'cause we were here (laughs) (Burns, July 31, 2008, Kaktovik).*

Pittenger asserts what industry would never admit and most Iñupiat are too humble to say: the DEW Line never could have built on schedule without them. Pittenger’s understanding of the environment and respect and need for local expertise likely earned him a measure of respect from his Iñupiaq co-workers. An important trope among Iñupiat about the military is that the Iñupiat were extremely helpful to the military whenever missions took place in the Arctic, while the military men were ignorant and would never have survived without the local wisdom of the people. Of course this was the case with all newcomers, but it is particularly ironic when it concerns exploratory expeditions (usually military) or other military activities. This trope is well justified and is corroborated in many early exploration descriptions and accounts of stranded whalers.

While most people refrain from directly stating it, Etok expressed the essence of this feeling in describing the history of the modern military’s early activities on the Arctic slope: “It was just like we hold them by the hand. You know, they are completely – there were lots of suicides, military suicides due to darkness, and then they found it in their wisdom to hire local people...” (Edwardsen, April 14, 2009, Fairbanks).

Others, less direct, share an example or a story that illustrates these sentiments. One regionally famous Barter Island DEW Line story has been recounted by people for decades and combines all the key elements of this theme. The story is about the dramatic comeuppance of a particularly unfriendly and racist station chief at BAR-Main. This chief disliked Natives and had no use for them. He would not even sell them cigarettes or anything from the PX, and he would never consider that he or the base could benefit from local knowledge.

One day, this chief went on a short errand in a weasel when a bad storm blew in quickly, resulting in a total whiteout. The chief did not return and the site employees could not find him. Recognizing that he was not prepared to wait out a storm and that he would almost certainly perish, a few employees came to the nearby village and explained the situation to Vincent Nageak, Danny and Isaac Akootchook and others. The villagers quickly formed a rescue group and gridded the land until they found the stuck weasel and the station chief, who was nearing hypothermia. After that, he had plenty of respect for the Natives, let them shop at the store and was completely friendly.

Residents of Kaktovik were relating this story (with much greater detail) when Norman Chance conducted fieldwork in there in 1958 and it was described in even greater detail at an Elder's Conference held in Barrow in 1978 and everyone is still familiar with it. The story manages to include clear messages about racism and egotism (pride before a fall); a lesson about how underestimating the weather and being unprepared can be fatal; an example of the Iñuit's fundamental humanitarianism and ease with forgiveness; and a dramatic group rescue operation (search and rescue is a significant community focus and there is no one hero, just efficient group cohesion). Furthermore, it is a story of redemption, acceptance, and, finally, social harmony. For all these reasons, this is a particularly satisfying story that succinctly illustrates how the Iñuit helped the military survive in the Arctic despite the fact that many Taniks did not respect the land or the people. It is striking that it is the only DEW Line story that is so satisfying and so popular – no one has gotten a deserved comeuppance and there have been no such satisfying endings for the seizure of the land or poisoning of the environment.<sup>37</sup> It is also striking because direct statements about racism are rarely made (at least in conversations with Taniks), but the racist station chief story is common. As noted by oral historians, stories are often used to discuss important interracial issues. The heartening fact is that the chief's comeuppance for his ignorance and racism wasn't death – that would not have

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<sup>37</sup> A group of people in Kaktovik did undertake a lawsuit seeking compensation for the military's forced relocation and the loss of homes. The case never progressed, according to the few residents who mentioned it, because the statute of limitations had expired *and* because such claims were extinguished with the passage of ANCSA. This is not a popular story.

made nearly as good and generous a story. He merely had a near death experience, then rejected his wrong-headed ways and experienced acceptance of and by the local people.

DEW Line discussions are replete with stories about individuals who did not adjust well to life in the Arctic. The first description that Doctor Gareth Howerd<sup>38</sup> remembered hearing about the DEW Line was from a happy-looking fellow who had worked on the line for a few weeks. “Oh, everything was fine, except for one thing, the Arctic blues. There was nobody and nothing there and the place was enough to send any man round the bend” (Howerd 1960: 16). The fellow had made it a month before they had to fly him out to spend two weeks in the hospital. Once on the Line, Howerd felt strongly that monitoring and boosting morale at every site he visited was an important part of his work, and with this he had laid out no small task for himself. His memoir is replete with stories of deranged cooks going on rampages with cleavers and other employees dealing with serious depression.

Much of this depended on a person’s perspective. People who were happy and loved their job could not imagine that there were any problems involved with the position. It seemed to Hal Phillips as though Federal Electric was struggling a bit with managing the challenge of so many employees, and because of this they were more cautious than they would have been otherwise. Hal is of the opinion that this over-cautious approach was the reason for the battery of psychological tests that candidates were subjected to while Federal Electric was considering them for hire. Hal thought the tests were unnecessary and pointed out that only one of his co-workers went “off the deep end” (Phillips, Dec. 13, 2006, Texas City, Texas). Later, Federal Electric did do away with the tests for a period of time, but the results of that were undesirable and the practice

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<sup>38</sup> Howerd’s experiences working on the DEW Line transformed him dramatically. By his own description, Gareth Howerd quickly went from a dapper young man about town, dressed in properly tailored English suits, to a dirty, unshaven, sweaty character dressed in freakish Arctic attire who found himself disappointed by the utter triviality of sophisticated city life. Howerd spent one year in the early fifties in the Eastern Arctic as the DEW Line doctor responsible for a 600,000 square mile area, and he published a memoir about it, *DEW Line Doctor* (1960), for The Adventurer’s Club of London.

of psychological testing was reinstated.<sup>39</sup> Etok's understanding was that most military people were easy to get along with because, unlike the subsequent oil industry that let *anyone* up North, "the military had them checked out and anybody who was not deserving didn't last very long" (Edwardsen, April 14, 2009, Fairbanks).

Hal recalled that his crew came up with a very effective method to deal with one unhappy DEW Liner, who did not hing but complain about how much he hated it up there and how he was going to go home as soon as possible. "And he just kept growling about everything, and there wasn't anything to growl about! And finally somebody said 'I'll tell you what, why don't we take up a collection and send you home.' We called his bluff, took up a collection, and he went home."

Harry Merriman<sup>40</sup> also remembered that people who thought of the DEW Line as a prison did not stay. There were a few people, he said, that flew up, walked down the airplane ramp, turned around and got back on the plane. But nobody was forcing them to stay and those that did not like it simply left. As Harry said, "[I]t kinda sorted itself out and you wound up with the type of personality that could endure that loneliness or that remoteness. We were certainly remote and isolated" (Merriman, March 3, 2009, Fairbanks).

Sammy Lennie's eyebrows rose as he gravely explained that a lot of the DEW Line guys stayed *twelve months* at a time. He made circles with his finger by his head and said, "I remember a few of them going kinda....flippin' out. And I remember the one guy - they took him out of there with a white sheet - wrapped up - so he don't harm anybody or harm himself. But he was right out to lunch" (Lennie, April 3, 2009, Fairbanks).

Harry Merriman made a number of good friends on the DEW Line over the years and considers that the job attracted particularly interesting people. While the image presented by National Geographic is one of suffering and loneliness, a different picture

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<sup>39</sup> Only radicians underwent the psychological tests, which were also designed to weed out homosexuals. "Back then, I didn't even know what 'gay' meant. I thought that was just a guy who was really happy!" – Hal Phillips, Dec. 13, 2006.

<sup>40</sup> Harry Merriman of Fairbanks started working at Barter during the summers in 1964. When he finished college, he went permanent and worked on the supply ships, visiting all the sites in the western sector. He later went on to work for a few years on the Greenland Ice Cap sites.

emerges from Hal, Harry, and other DEW Liners for whom the experience was a life-changing and very positive adventure. Harry recalls that some of his co-workers had to be almost forced to take any leave. DEW Liners were allowed 30 days every 9 months, and “some of those guys just wouldn’t do it. They’d just kept packing away money and they wouldn’t go. [I]t was a way of life a lot of them just really enjoyed” (Merriman, March 3, 2009, Fairbanks). Although he was not a radician, Harry corroborates what Hal claimed – that although people thought it would be a boring job, the radar techs had a great time. Among other excitement, they had a lot of communication with international flights traveling over the poles.

### *Wage earners*

Clearly, a significant part of people’s enthusiasm for the job was the money. Particularly in Canada, the number of young men who worked on the DEW Line and made enough money to set themselves up as home owners and middle class citizens was significant. The wages on the DEW Line were excellent. While they may not have been overly concerned about the radar sites’ roles in geopolitical nuclear strategy, the Iñuit certainly knew and cared that the DEW Line was an opportunity for work and good money. In several areas across the Alaskan Arctic, many Iñupiaq men had been previously employed by the federal government – both during PET 4 exploration and as guides and assistants for the U.S. Coast and Geodesic Survey<sup>41</sup> (USC&GS). Several Kaktovik men had worked for the USC&GS and George Agnasagga remembered that “everybody” in Point Lay was employed for USC&GS during the years before the DEW Line (Agnasagga, Sep. 13, 2009, Wainwright). Once construction on the DEW Line began, prospects for wage employment at the camps were soon known throughout the

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<sup>41</sup> “In 1807, President Thomas Jefferson signed a bill for the “Survey of the Coast,” thus establishing the United States Coast Survey. In its early decades, the Coast Survey was responsible for charting the coastlines. But its responsibilities grew with the acquisition of Alaska in 1867 and the 1871 law requiring the Coast Survey to carry geodetic surveys into the interior of the country. Thus in 1878 the U.S. Coast Survey became the U.S. Coast and Geodetic Survey (USC&GS). In 1965, the Coast and Geodetic Survey became a component of the Environmental Sciences Services Administration (ESSA). And then in 1970, ESSA expanded and was reorganized into the National Oceanic and Atmospheric Administration (NOAA).” - <http://www.lib.noaa.gov/noaainfo/heritage/coastandgeodeticsurvey/index.html>

region. Only two months after the arrival of the work crew at Komakuk Beach, the air was full of rumors in Aklavik, over 250 kilometers away. After the spring muskrat-trapping season, numerous Aklavik residents headed down to the coast to see what was available. At the sites, the immediate need for unskilled labor absorbed almost all who wanted to work.

Construction of the Line constituted what Robert Alexie of Aklavik and Ft. McPherson called “big news, lotsa money” (July 6, 2008, Fort McPherson, NWT). He still has the gun he bought with his DEW Line wages back in 1957. “Sixteen dollars a day!” he exclaimed. “Ten hours! Good money!” Alexie remembers exactly what people made during construction: electricians were making \$2.85 per hour and as a carpenter’s helper he made \$2.50. Despite the good money, he did not envy the few local people who went permanent on the DEW Line. “They just stuck at that job. That’s what they say: once people start working there they are not a hunter anymore.” Alexie, a Gwich’in Athabaskan, still laughs when he recalls the headline that appeared in the local paper: “Eskimos are joining the DEW Line, throwing their harpoons away” (July 6, 2008, Fort McPherson, NWT).

Payment for Native and Tanik employees was not always equal and varying degrees of corporate greed, condescension and racism were the cause of the disparity. When Norman Chance interviewed DEW Line managers on Barter Island during his fieldwork in the early 1960s, he asked them why their Iñupiat employees were paid less than Whites for the same work. He received this typical “gift economy” of bases response:

"Do you know what Eskimos get in Canada for working on the DEW Line? Two hundred a month. We give them three times that amount. By comparison, the people here are making out really well. Sometimes I think we do too much for the Eskimos. Eventually, they become unappreciative." People in Kaktovik corroborate that the locals were not paid at the same rate as the imported white workers, but they needed the money at the time and were in no position to demand equal pay.



H. L. Rees, a Canadian game warden in the delta region, reported on the impact of the new radar sites in the western Arctic in March of 1955: “the fact the natives at Tuk are showing more interest in the prospect of working on the Dew Line demonstrates they are well into the transitional stage between being straight hunters and casual labourers. It has always been difficult to get these people to work in the settlement but the DEW Line may prove the turning point” (Rees 1955).

Jack Ferguson, however, wrote that he was attempting to show that Inuit living in proximity to the DEW Line were “on the threshold of a radical change in both their means of livelihood and their basic culture” (Ferguson 1957a). While Game Warden Rees hoped it would be the “turning point,” Ferguson called the DEW Line “the last nail in the coffin.” Reluctant to accept the dynamic nature of culture, Ferguson wrote that with the possible exception of Tuktoyaktuk, “indeed it could not be said that there are any true Eskimo communities located in the...area. Eskimos working [in that area] have been recruited from the Mackenzie River Delta; they live in the construction camps without their families as do the Europeans” (Ferguson 1957a).

Ferguson emphasized that this radical change in livelihood and culture did not emerge from within Inuit society, but was ‘imposed’ by Whites. Suddenly, at least 25% of the Inuvialuit population of the western Arctic experienced a fundamentally different kind of living pattern with the introduction of steady wages. “The description of this type of employment as ‘imposed’ is not too strong’ Ferguson wrote. “The European has created desires for material goods among these people, and these desires can only be resolved by the Eskimo taking every opportunity to earn money” (Ferguson 1957a).

The significance of the economic transformation varied according to an individual’s experience, and people with experience trapping fur or mining gold were familiar with working for money. However, even people entirely comfortable with a cash-based economy usually worked outdoors by their own schedule. Steady, wage-based industrial labor made “severe demands” upon the Eskimos, Ferguson reported. He characterized the work as different and baffling, requiring none of the traditional skills of the hunter-trapper. A man’s time was, Ferguson observed, no longer his own, and he

could no longer travel when and where he pleased. Inuvialuit communities had been fundamentally changed. Whether the men left the settlement to work at a nearby site or whether they brought their families and set up a new camp adjacent to the station, the communities were “split in two; the men working at the DEW Line site, the women and children trying to maintain a traditional life in an economy in which they ha[d] no part” (Ferguson 1957a).

In Canada’s western section, the Tanik employees on the Line were 95% Canadian but the supervisory staff was predominantly American. “In this area the problems of Eskimo employment were less well understood by the construction company than in the east and the results were less happy” Ferguson noted (1957a). At sites further east the men often stayed nearby but were periodically absent from work in order to hunt and be with their families, but in the Mackenzie Delta sector it was difficult to pinpoint what was real absenteeism and what was merely casual employment. “The Eskimos did not stay away from their jobs; they simply quit them, moved on to another site, or returned to their homes...” (Ferguson 1957a). Especially for Inuvialuit employees in the western sector who lived in bunkhouses on site, the obligation to support one’s family and relatives at another place required a significant portion of their earnings. The rest of their money was often spent on watches, jewelry, and clothing from the traders. Some money, Ferguson noted, changed hands through poker playing and illegal liquor purchases (ibid).

Only a few months after his initial assessment, Warden Rees was sorely disappointed that the Tuktoyaktuk Natives’ interest in unskilled wage labor appeared to be short-lived. His July 1956 report noted that the Natives there were “too keen on dancing all night and playing poker. At the time of our visit only two Eskimos were left on the payroll at this site. The others had quit or been fired” (Rees 1955). By September of the same year, the DEW Line had not become the ‘turning point’ Rees had hoped for in Letty Harbour either. “The DEW line project appears to be having no effect on these people,” Rees reported with disappointment. He explained that some of the men worked for a week or so but they did not like it and quit to return to their families. Rees

recognized that forbidding Inuit to take their families with them to DEW Line sites left the men in a difficult situation: “On the bleak and inhospitable coast where even fuel wood is scarce a family without a man is in sore strait indeed,” and he sympathized that the men “cannot be blamed too much for wanting to quit and return to their families.” He understood that Whites at the radar sites did not want to live in the same camps as Natives, but he felt that officially establishing Native camps a few miles away would encourage the Inuit to work on a more permanent basis (Rees 1955).

In his correspondence, Jack Ferguson lamented that the succession to a wage economy and the dominance of western culture “would be quite satisfactory if the new filled the gap left by the disappearance of the old, but the plain fact is that the Eskimos are offered only a fraction of the incredible volume of European civilization” (Ferguson 1956). He thought that although the abundance of comic books, cowboy music, and junk jewelry was a sign of a healthy economy, the basic culture was impoverished. He complained: “This is the way that ‘hill billies’ are created”.

Reporting from Tuktoyaktuk in November of 1955, Rees reversed his earlier appraisal and reported that the Natives there were “perhaps better off now than ever before in their history. About twenty of the Eskimos are now working on the DEW Line site and they have just completed building seven new log homes for themselves. They are also spending their money more wisely than in former years. This is something they have learned through bitter experience, not one but many times” (Rees 1955). By Christmas, Rees reported that, thanks to the DEW Line, the Natives in Tuktoyaktuk were particularly happy and danced every night until seven in the morning for two weeks that year – a longer period than their finances would normally allow. He also reported that it looked like another poor season for white fox, but “generally speaking this should not bother the Eskimos too much this year as they can make infinitely more money on the Dew Line than on the Trapline” (Rees 1955).

By March of 1956, according to Rees, the basic economy of the Inuvialuit had been transformed. That winter, the Hudson Bay Company at Tuktoyaktuk had only one man doing serious trapping. “All the other Eskimos are employed on the Dewline and

getting along quite well. The Eskimos seem to have settled down to the idea of steady employment now and are even spending their money more wisely.” He reported that absenteeism at the site was declining rapidly, and that the “Northern Construction Co. seems to be more satisfied now with the Eskimo labour than hitherto.” At the news that nine coastal vessels would be operating out of Tuktoyaktuk to supply all the DEW Line sites in the Western Sector, Rees noted that it “would have a profound effect on the way of life of the natives, many of whom have already lost all interest in trapping for a living” (Rees 1956).

At the same time, Ferguson did not find as much evidence as Rees that the Inuvialuit were accepting steady employment, and he was pleased to learn that the DEW site superintendent who was the most successful with Native employees shared his views. The superintendent mentioned that his Inuit employees were getting tired of employment and he expected them to vanish onto the ice any day. He could not see why they should bother to work anyway since it seemed to him that money was of no real importance to them. “I was rather surprised at [his] attitude of disillusionment towards Eskimo employment since the official one both on the part of [Northern Affairs and the Northern Construction Company] is that employment and money-making is ‘a good thing.’ In fact, that is just about the only justification that anyone can bring forward...the sum total of all this employment...is that some good hunters and trappers will be turned into indifferent wage-earners” (Ferguson 1956).

That spring, Warden Rees started to notice a few side effects of the new economy: “The widows and aged people, who customarily get someone to assist them on their trapping areas are finding it very difficult to get help this year. There have been many young men hanging around town but they are not interested in trapping and when approached on the subject, a far away, dreamy look comes their eyes and they speak of getting jobs on the Dewline...someday” (Rees 1956).

By February of 1958, the chief game warden R. C. Timmins of Aklavik reported wasting significant time and having great difficulty attempting to contact trappers to renew their licences, as many were employed on DEW Lines sites away from town.

Timmins reported that the trappers he did get to see reported that they had *not* abandoned trapping in favor of steady employment and higher wages. Instead, due to the extremely low prices for fur, trapping was simply no longer any kind of option. Working at the radar site did not seem to be a choice - it appeared to be the only choice. At Cambridge Bay, another region where the residents were long accustomed to Whites and the trapping and trading economy, Ferguson asked every Inuit employee at the DEW Line site whether he liked his new job. Almost all replied that they did, but when the older men were asked whether they would prefer to remain at wage employment or go back to their old lifestyle, "doubt was immediately apparent and most of them finally said that they would prefer to return to hunting and trapping" (Ferguson 1957a).

The work situation at many remote DEW Line sites was better suited for single young men. Without an accompanying family, it was much easier to accommodate young, single Inuvialuit men in bunkhouses just like, and sometimes alongside, Taniks. Since the young men lived in the construction camps, they learned their jobs, picked up English, and adopted the clothing and other habits of their co-workers more quickly. As the young men were less prone to miss work or quit their jobs entirely to be with and provide for their families, construction superintendents tended to prefer them and train them for more heavy equipment operating and other skilled labor jobs. Sometimes the men were stuck with kitchen jobs, which they resented as women's work, but their employers appreciated the training in European sanitation standards that the Inuit learned cooking at the DEW Line sites.

Young Inuit DEW Liners earned a very high income for their age and experience compared to what they could have made trapping - even when trapping had been a lucrative venture. Ferguson observed that the young men saved about 50% of their earnings, and most of what they spent was on clothing, watches, guitars and violins. "None of them bought anything which might be regarded as hunting equipment and there is no intention among any of them to return to traditional life" Ferguson concluded (Ferguson 1957a: 36).

Working continuously without families to support or trapping equipment to purchase, young men soon acquired enough wealth to put them in an income bracket above most established, mature men. Equally disturbing to the normal social hierarchy was the leveling of incomes between the different types of trappers. On the DEW Line, men who had simply gotten by or had been patently ineffective trappers and untalented hunters worked as equals alongside the most highly skilled and respected trappers. Sometimes these lower-ranked trappers ended up making more money on the DEW Line since they did not take time off to hunt and trap. Conflicts arose, Ferguson wrote, when “leaders of the community no longer had their status conferred through their superior performance of occupation” (Ferguson 1957a) 39.

Before the introduction of the industrial wage earners, the men whose successful trapping had earned them plenty of material goods and corresponding high status numbered perhaps one in ten. With the DEW Line, at least 50% of the employees were able to obtain similar goods and more. Ferguson also concluded that the very nature of an individual’s occupation determined one’s material needs. Trapping, for example, required very few luxury items or Tanik goods and did not, he argued, displace Inuit culture to any great degree. With wage employment, on the other hand, the need for goods that reflected Tanik values was intensified to such a degree that it affected the very fabric of Inuit culture.

McMahon claimed that the late fifties employment bust (following the DEW Line boom) created the first ideological dispute in Tuktoyaktuk. There were two main factions: one advocating a return to pure subsistence and the other demanding government jobs and subsidies to maintain their way of life. McMahon’s assessment was grim: the quandary that big development creates has intensified over the years but will not, by its nature, be able to go on forever. “The voices one hears in it are those of the Inuit mind wrestling with itself, trying to formulate a response to a danger to which there can only be a limited reply. A mind, as it were, headed out toward the sea” (McMahon 1988). The choice that is supposedly given to Inuit to work or subsist is not a real choice,

he wrote. Traditional life gets no support, and industry gets immense incentive. Then, the choice becomes whether to survive or not.

In combination with the DEW Line jobs, a revival in fur prices in the early 1950s significantly accelerated the adoption of southern goods to the Mackenzie Delta region. The HBC store in Tuktoyaktuk normally cleared about \$55,000 annually. In 1955, the manager expected \$150,000 and the store had made \$24,000 in the first three weeks of August alone. At the same time, mail-order business increased from virtually nothing in the late 1940s to over \$10,000 by the latter half of the 1950s. Most of the purchases were for boats, outboard motors and related capital goods. (Alexie said the DEW Line was big money, but that it was the arrival of oil companies in the Delta that led to such widespread wealth that many people bought boats and motors.)

Robert Alexie remembered that some people were duped into paying exorbitant prices (\$80) for cheap watches or buying electric shavers that they could not use at home because they had no electricity. However, Alexie and others interviewed do not corroborate Ferguson's conclusion regarding a widespread permanent departure from "traditional life." Ferguson was conducting his study during the height of DEW Line construction and employment, but very few men became permanent employees. More importantly, the decision to hunt was usually a matter of individual preference.

Etok, whose father had steady and secure employment on the DEW Line while he was growing up, was emphatic that Inuit people were happy it was built ("They had work!") and that the sites were overall beneficial ("They brought commerce, jobs!") (Edwardsen, April 14, 2009, Fairbanks). Families with members who were permanently employed by the DEW Line did experience a higher standard of living. According to Etok, one of the biggest advantages of the DEW Line development was that the children of the employees were never in need of anything because their fathers were working. Nora Jane Burns (2008) remembers that community members with DEW Line jobs would help their family members when they had extra, and her grandfather was one of the ones making good money. MaryAnn Warden (2009) remembers that Isaac Akootchook and her biological father Nageak had a picture taken with the first dollar

they earned. Nageak somehow managed to buy an accordion that he and MaryAnn learned how to play, while her uncle bought the first guitar in town. Despite Ferguson's dire characterization of this demise of traditional culture, MaryAnn remembered how cool it was that around the same time, thanks to money made at the DEW Line, somebody got a mandolin and someone else got a violin. "Well, by that time, they needed a job to take care of their families. And by that time they were used to getting stuff with money. Before that we just lived off the animals that we caught" (Warden, May 28, 2009, Kaktovik).

Alice Agiak's father worked at the Barter Island site and, at Christmastime, his children would have new clothes that he ordered out of the Sears and Roebuck catalog. Alice also remembers that even though their family had experienced times of severe hunger before he worked at the site, her father would send money to CARE and the March of Dimes every month. Kaktovik, adjacent to the largest site in the Western Sector (and perhaps with the greatest need to bolster community relations) fared better as far as local employment at the site: from all accounts it appears that if a man wanted to work, he could get a job there. Alice Agiak said, "They hired Isaac, my dad, Wilson – just to keep them working. Making jobs" (Agiak, May 31, 2009, Kaktovik).

Betty Tulugak reported that there were about two families from Wainwright who worked at the site there and they were wealthier. She is pretty sure she considered them lucky: "At that time there was benefits because there was hardly any work – nobody was in the Guard anymore" (Tulugak, Sep. 18, 2009, Wainwright).

Extra benefits ensued when Tanik DEW Liners became family members. Carla Sims Kayotuk of Kaktovik is certainly better off due to her father's industrious and entrepreneurial character. Mark Sims was accepted into the tribe when Carla's parents decided to marry. After he quit his job of many years as a supply clerk working at the DEW Line, Mark Sims worked in the post office and for the airlines before opening Kaktovik's first store, which Carla inherited.

Gertrude Frankson from Point Lay experienced many benefits when her mother married a cook at the DEW Line site. Gertrude's (step)father took her to vacation by RV



in the Lower 48 every summer, usually in California. Gertrude had an overall extremely positive attitude about the DEW Line and considered that she had been particularly lucky because since her dad was a cook there, she could go visit anytime and have ice cream floats.

“Sometimes I felt like we had the advantage, we had all this stuff, more better fresher groceries,” said Sammy Lennie, who remembers eating beef for *quaq* (raw frozen meat) and, when his parents were away, lazily filling up buckets with cans of tuna or bricks of ham to feed the family dog team instead of catching, freezing, and thawing out fish (April 3, 2009, Fairbanks). Unlike other families, Sammy’s did not have to gather firewood because they had an oil stove and received free oil from the DEW Line.

However, there’s often not enough money to go around and money can make people unusually stingy. Evelyn Gordon remembered that her brother-in-law did get paid, but he would only loan it to family and friends. “He used to say – only if you borrow I’ll let you have some. And when they got money they give it back to him” (E. Gordon, May 25, 2009, Kaktovik). Reflecting on the economic benefits of the DEW Line, most people don’t remember the short boom that came with construction over 50 years ago. They remember the economy it provided for decades. George Agnasagga said about Point Lay, “It was good for one family only. Other than that no one else got employed” (Agnasagga, Sep. 13, 2009, Wainwright). Bruce Iglangasak was equally skeptical about the long-term economic impact of DEW in Canada’s western Arctic: “Maybe one or two families out of the community” (May 5, 2009, Kaktovik).

There were some disadvantages to being DEW Line employee families. When they lived at the site outside Tuktoyaktuk, Sammy often got in fights with kids who teased him about being a ‘DEW Line kid’ who should go back and be with his own kind. (Sammy defended himself well and had family in Tuk he could spend time with). A more serious disadvantage was that when their fathers worked at the remote sites (for Sammy, these were Tununuk and Shingle Point), school-age children of DEW Line employees were sent away to residential boarding schools from fall to spring every year. Sammy

believes his father lost the connection to his children because they were away all their school lives.

Sammy's dad worked on the Line for twenty years, had records showing that in twenty years he had missed two days of work without arranging it, and he never received a pension. Sammy, as an adult, tried in vain to sort this out. He was informed that local people hadn't been interested in pensions at the time they worked and/or that fiscal responsibility for such expenses was unclear because of the joint Canadian/U.S. ownership of the Line.

By the time Robert Thompson moved to Kaktovik<sup>42</sup> in the 1980s, only one man worked full time at the DEW Line and Robert could not see it being a large part of the economy. More importantly, the few people that did work there had only labor jobs and never received training for technical work. Aware of this issue, University of Alaska anthropologist Ivar Skarland explained in a 1955 letter that the Iñupiat of Arctic Alaska should receive training near home and gainful employment at the DEW Line. Skarland explained that officials in Washington DC and Juneau had well-intentioned plans to do things *for* the Natives, but that too often these top-down policies instead did things *to* the Natives. Most of the officials in DC, according to Skarland (1955), were not qualified to make policy recommendations on this issue. "Why not find out what the people themselves want before doing things for and to them?" he asked.

The reason for Skarland's "tirade," as he called it, was a recent discussion about bringing high-school age children from the Arctic and Bering Sea regions to high schools in Fairbanks and Anchorage. He wrote that while the people of the Arctic and other remote regions wanted an education like Whites received, they also wanted their children home or as near to home as possible. Skarland laid out some of the problems with Native employment: while hundreds of people were employed in remote areas, only a few employees were Native and those were usually employed in the lowest pay grades, as even lower-rung jobs required training equivalent to a high school education. It was, he

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<sup>42</sup> Robert Thompson's mother was from Wainwright, he grew up in the Interior and was chief of Minchumina before moving to Kaktovik, his wife's hometown.

argued, in the Native people and the nation's best interest to have schools and training centers nearby:

*For our defensive purposes we need a population in the Arctic, not only temporary garrisons. This means that there will be many more job openings than before, most of which need some technical training: for example, on the DEW line. Most people imported from the States, or even from the more southern parts of Alaska, are generally miserable here. Some may remain a year or two and write a book on it. The Eskimos not only like it, but prefer to live in the Arctic.*

### ***Skills***

Industry publications and other media concerning the DEW Line consistently argue that employment at the DEW Line was an excellent opportunity for Natives because they received a significant amount of training on the job and gained skills that would be valuable to them throughout their working lives. With two minor exceptions, this claim was not supported by the research. Several men did learn "cat skinning," (how to operate a bulldozer), which was a skill that they were sometimes able to use in other aspects of their lives. Asked whether he acquired skills or a trade, Robert Alexie's response was typical: "Nah. No. Labor, that's all. Oh, I did a little cat skinning" (July 6, 2008, Fort McPherson, NWT). However, this skill was not valuable to Robert later in life ("I seen and done with that!") and in fact he warned young people about how hard it was on one's body to run a dozer long-term. Isaac Akootchook worked at the site for 25 years and claimed he learned no valuable skills. However, he remembered making quite an impression on the youth of Kaktovik when the community started whaling and Isaac fired up a bulldozer to haul the first whale on shore.

### ***Healthcare***

From the Canadian government's point of view, the most important responsibility of the DEW Line was the extension of modern health services to the Iñuit. The stations included extensive medical facilities to treat sick or injured crew, and these services also applied to Iñuit employees and their families. Continuing in the tradition of the Hudson

Bay, construction companies on the DEW Line (Northern Construction Co., Western Electric, Federal Electric) fought against responsibility for nearby Inuit who were affected by the new industry. The lack of any alternative medical services left camp managers with little choice when faced with requests for help and thus, by default, the medical services were often extended to other community members.

In Canada, the government attempted to develop an agreement with the operators of the line to formally act as medical services for local Inuit. This opportunistic combination of services did offer immediate medical service, but a host of complications followed. Medical staff was often overwhelmed by the nature of the injuries or diseases needing treatment and were often unable to deliver effective treatment to women and children. By 1962, the fear of malpractice suits, the complex method of determining who should give permission and pay for what service, and the threat to the effective operation of DEW stations forced Federal Electric to end medical services to all but its own employees. For the regions where the DEW Line was built, however, the greatly increased contact that came with the radar stations and airports facilitated the transport of diseases and contagious sicknesses – not to mention other sources for illness such as alcohol and unwanted pregnancies. Non-employees were therefore clearly affected by the DEW line but were deprived of medical services adequate to deal with those impacts.

Walt Audi thinks that the DEW Line was overall beneficial to people because of the jobs it created, but he did not think that it actually provided healthcare. He recalled that “they had a room that had medicine and stuff in it” and, upon reflection, that there was a doctor. “But he was a strange guy. I’m not sure I’d want him working on me. But he was there in emergencies” (Audi, Aug. 8, 2008, Kaktovik).

Harry Merriman remembered that the contractor always kept a doctor on at Barter Island while he was there. Laughing, he described that he was “always a little skeptical about the quality of the doctors they got.” He ascribed this to the fact that doctors on the DEW Line did not earn as much as they made elsewhere. While he was bartending at Barter, the doctor stationed there came in every day at the end of his shift, at 5:30 on the dot. “He’d come in and he’d want a glass of vodka. I mean a *water* glass. He would chug

that, turn on his heel, and you wouldn't see him again the rest of the night. I guess he was an okay doctor, but...I don't know if that is what he had to do to cope with staying there" (Merriman, March 3, 2009, Fairbanks).

Harry did think that the health care made available through the DEW Line was helpful to the indigenous people. "It's health care that they would never have gotten any other way. So it was some benefit to them that way" (Merriman, March 3, 2009, Fairbanks).

Many local people, when asked, recalled going to the DEW Line doctor or taking someone else there once or twice. Nora Jane Burns remembered that, more so than Christmas parties or movies, it was a big advantage to have the emergency care (i.e. shots for streptococcus). Carla Sims Kayotuk remembered that everybody would see the dentist up at the DEW Line, but she was not sure if he actually worked for the military.

Robert Thompson could not think of any advantages of the DEW Line's presence for Arctic residents and explained that the emergency services available at the site did not actually constitute health care. Although they did have a medic that people could go see, he remembered, it was in no way set up for standard health care and that was not something they did.

*"[Y]ou almost felt like you were imposing on them if people went there. It was sort of like part of what they had to do. I don't think it was the DEW Line's responsibility for health care – it should have been taken care of by the government. The DEW Line – it was mostly private contractors. They don't feel an obligation to take care of the native people"* (Thompson, May 5, 2009, Kaktovik).

### ***Race Relations***

Bob Pittenger described his first trip to the DEW Line site near Wainwright, Alaska. He and a few others went to investigate the village and found that every home had large, unheated subterranean entryways. They went to the store and on the way down the passage they stepped over dead seals, caribou, and other unidentified objects. A Native man opened the door who had had half of his face blown off by a whale bomb.

Pittenger found himself overwhelmed by the cold, the dark, the unfamiliar smells, and the sensation of being trapped in an earthen tunnel with these foreign people. “I don’t know how to describe my reaction. To say I was scared would be a gross understatement” (2000: 114)<sup>43</sup>. Pittenger quickly recovered and adapted: “The people were very nice. I think they were more curious about us than we were. The building of the DEW Line would affect them more than anything had for a long time” (ibid).

Hal Phillips thinks that questions of race relations on the DEW Line depend a great deal on the time frame being referenced. His impression is that the DEW Liners were a novelty when they first got there, and that both groups were very curious about each other. Phillips, who left in 1959, expects that things were very different as time went on. “I think we *caused* changes. We were right there in their backyard” (Phillips, Dec. 13, 2006, Texas City, Texas).

As well as doctor and counselor to the DEW Liners, Gareth Howerd was also the only nearby physician for the indigenous population. Howerd’s education was poor preparation for interacting with the local residents, and he was shocked to realize that the Inuit ate seals. His first call on a sick resident of the Old Settlement near his base on Baffin Island was an eye-opening experience. He was not prepared for the “shacks” that he thought must have grown rather than been built –“of driftwood, odd scraps of timber, rags and any other white man’s jetsam which came the Eskimos’ way” (Howerd 1960: 65). “No wonder,” he thought, “the Government are moving the Eskimos from these hovels to wooden houses...” (ibid). Recovering from the smell of the large seal on the floor, Howerd reasoned that the smell did not bother the Inupiat because they ate the meat and were like a Frenchman who does not notice that he smells of garlic. Applying this logic, Howerd adapted and began to eat raw seal meat himself before visiting patients in the Old Settlement, which worked very well.

Doctor Howerd was profoundly concerned that his first Inuit patient would not recover, that this would destroy the Inuit’s confidence in him right at the start and

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<sup>43</sup> *Arctic Tales and Arctic Tales*, the unpublished manuscript in The Pittenger Papers Collection in the University of Alaska Fairbanks Rasmuson archives, does not indicate the date it was written, although it appears to be sometime after the mid-seventies. The collection was given to the archives in 2000.

undermine the Government scheme for helping them (ibid: 68). He was relieved at the plan then underway to build the township at Frobisher Bay to encourage the Iñuit to abandon their “precarious” way of life for stable jobs and permanent homes, especially as the seal population had been decreasing and the old ways were becoming even more difficult. Several times he asserted that no Iñuit family would ever starve again, and that customs of infanticide and abandonment of the elderly were gone.

Reflected the faith in evolutionary progress that was prevalent in the fifties, Howerd commented on the tough job facing the RCMP: “Theirs was the difficult task of steering a primitive people from the Stone Age into the twentieth century” (ibid: 62). He credited the DEW Line for speeding the transformation of the Iñuit to “a citizen of a prosperous nation of the Atomic Age” and praised the people for being so quick to learn and “exceedingly efficient,” despite this being their first paid work (ibid: 74). Howerd wrote that the Iñuit absorbed the white man’s ways without showing much outward change, which seems to have been based on his observations that despite modern gadgetry and conveniences, Iñuit mothers still snuggled their babies in their parka hoods and hunters parked their dog teams in front of their homes just like folks parked their cars in Montreal (ibid: 74).

Howerd proudly reported that “a colour bar was unknown here and the law was as impartial to Eskimos as to whites” (ibid). He was impressed by the careful and precise Canadian citizenship ceremony that took place while he was at Baffin Bay, when many whites and Iñuit crowded into a room dominated by flags and a portrait of the Queen. “The presence of the Eskimos was regarded as important by the R.C.M.P.s for the occasion was a vital opportunity to show these people what it meant to belong to a great Dominion” (ibid: 63). Howerd laughed at the “ever-smiling Eskimos” as a new citizen took the oath and, after a drum roll, he played “God Save the Queen” on a portable gramophone while all the whites straightened up with their hands to their hearts. After repeating that the Iñuit appeared to have little understanding of what was going on, he said: “I think we all learned something important that afternoon” (ibid: 63).

To Harry Merriman's recollection and experience, the people in Arctic communities "showed no bias, no racism whatsoever, [they were] very friendly, very helpful, just made great friends and great workers, for the most part." Harry does think that the culture has changed dramatically, but less due to the DEW Line than to ANCSA and oil development.

Howerd had an almost complete lack of skepticism about potential negative impacts the DEW Line might have on the native inhabitants and believed strongly in the inherent advantages of "progress." The sensitive politics of the time constrained people's criticism of any aspect of defense projects, and as a new citizen (he immigrated from England right before his DEW Line tour) Howerd was wary of criticizing Canadian policies. He knew that the previous influence of whites on the Inuit had been devastating, and he believed that "now we are making amends" and hoped that it was not too late to save them from extinction (Howerd 1960: 158). "Now the mineral wealth of the Arctic is on the verge of being extensively tapped. And once again the life of the Eskimo is going to be changed. Let's hope it is for the better" (ibid).

Bob Pittenger, in charge of actually building the industrial future of the North alongside Inuit laborers, was not quite as confident about the positive impacts of western civilization. "These people made a living from one of the most hostile environments in the world. They were amazing people. I doubt their contact with white man has been beneficial" (Pittenger 2000: 116). Writing in the mid-to-late seventies, Pittenger reflected on the transformation that had taken place on the North Slope since he left:

*I am told around Prudhoe Bay it looks like a major city. I wonder what will happen to the people and the land when the oil is gone. It might be possible to restore the land but the people can never go back to what they were. I don't know if that is good or bad but I loved them as they were.*

Reflecting on the nature of social contact between the White workers and the local Inuit, Pittenger recalled, "We didn't go the native village much." The main reasons



for this seems to have been that it was extremely difficult to get a vehicle to go to the village and the consequences of getting in any kind of trouble there were serious: “The Commissioner tried to protect the Eskimos... [] In hindsight, what he did was to delay the introduction of many of the white man’s bad traits” (Pittenger 2000). Getting in trouble in the village would get a DEW Line employee sent to Fairbanks if he was lucky, Pittenger recalled.

Howerd found the Iñuit to be very honest and “a most peaceable people” (Howerd 1960: 136) and included an interesting description of an old Iñuit method of settling disputes, wherein the two men involved were made to sit face to face and make up verses maligning the other. The loser was the one who first gave up “this battle of invective” (Howerd 1960: 136). More common was the custom of elders sending both disputants off in different directions for a predetermined set of time, after which they would come back, quarrel forgotten. Howerd reflected on the direction of his own society: “It is an idea which could be copied among people who claim to be more civilized than those of the north” (1960: 136).

Naturally, not all DEW Liners were as thoughtful or adventurous. There are several stories of men who did twelve months, barely went outside, and could not say which way was North if they did go out. One long-time Barter Island DEW Liner scoffed at the notion that he would have any reason to go to the village or have anything to do with locals. Amid disparaging remarks about the cleanliness of locals’ houses, he gratuitously explained that Iñuit females body type did not appeal to him and, “I was never that desperate for sex.” The unfortunate truth is that one dislikeable and racist character can do much to harm relations between groups, but this type of ignorance was not the norm on the DEW Line. Moreover, the nature of a DEW Line site meant that individuals who were not interested in the local people or the environment were rarely in situations where they had to interact with the community. Unlike a military base with a mission of actively patrolling the area or doing business with locals where personnel are required to interact with local society whether they want to or not, DEW Liners with racist outlooks could largely keep those attitudes contained within the module trains.

Thus, the DEW Line created a situation where interactions occurred more often with people who desired the interaction and this had a strong positive impact on race relations.

Robert Alexie remembered that relations were “okay, they were strict, that’s all. No drinking, no taking no liquor no nothing, going to town. I know Tuk, they were very strict” (July 6, 2008, Fort McPherson, NWT). Quite a few DEW Liners from the remote Shingle Point Auxiliary site used to walk down to the Native camps on Shingle Point spit and spend time with the people camping and hunting there before going back to the site. Nellie Arey remembers that they were totally friendly and that Natives were welcomed up at the site as well, where they had a little canteen.

Nora Jane Burns does not remember any racism on Barter Island either. “Because we had military here, and I just thought of them as regular people” (Burns, July 31, 2008, Kaktovik). However, when she moved to Barrow in the fifth grade, she realized that many people were “anti-White and stuff, ‘cause I was told ‘go home, honky.’” When Nora Jane Burns found out from her father what ‘honky’ meant, he explained to her that her grandmother’s father was a Yankee whaler. Nora Jane was shocked, saying, “I thought I was Eskimo!” Nora Jane never saw that kind of racism on Barter Island, and the children whose fathers worked at the DEW Line were not bullied by other kids about it. After hearing about Sammy’s experience at Tuk, Nora Jane concluded that it was different on Barter Island because the village was so close to the site that it was a bit like the villagers were part of the DEW Liners’ social life and the children made the men less lonely. “‘Cause when we were kids we used to go up in there even though they tell us not to (*laughs*). We never listened, we just go up there.” She recalls that they went through everything and “there was some white guys that were decent” who would give the kids snacks and who befriended the village. “I think that’s how it kind of started breaking down, they start making friends and whatnot, so” (Burns, July 31, 2008 and May 27, 2009, Kaktovik).

Amos Agnasagga, who attributes the decline of his home village of Point Lay to the alcohol introduced by the DEW Liners, did not have any issue with the individuals

who worked there. “Oh yeah, they was pretty good people. I mean, they didn’t think they were doing wrong” (Agnasagga 1998).

In Wainwright, Isaac Panik was able to visit the base relatively often because his father was a friend of the station chief. Despite Isaac’s subsequent mistrust of the military, he was extremely fond of the DEW Line site and the people who worked there when he was a child. “I was not afraid of the site, I considered them as family, they were very good people, the individuals. [] The people there were very open, very kind. I liked them a lot. The people who gave me an impression were personable” (Panik, Sep. 13, 2009, Wainwright).

Robert Thompson’s observation on relations with the DEW Liners was that people generally got along. “I don’t think there was any active hostility. But, to be realistic, white people generally didn’t respect Native people, but that’s just the way it was. It’s that way around the world” (Thompson, May 5, 2009, Kaktovik).

That lack of respect earned the same in many cases. Predictably, MaryAnn Warden did not want to divulge much, but she let on that the Iñupiat who worked at the DEW Line had special nicknames for all the tanik DEW Liners they worked with. For example, one fellow who began every sentence with “Believe you me” became known by that phrase among locals for the duration of his employment at Barter. MaryAnn’s father became incensed at a taunting he received from Believe You Me, so he rolled up a piece of paper and hit him over the head with it and “that was the end of his violence.”

### ***Polar Echoes***

Clearly, many aspects of life on the DEW Line never made it into the heroic films and other publications produced by the industry contractors. Perhaps more realistic than Western Electric’s version, National Geographic painted its own style of life at the sites: “[L]oneliness...lends a dreamlike quality to existence in the north” (La Fay 1958: 144). Three quarters of the men on the DEW Line were married and “boredom and isolation are the chief enemies of the DEW Liners as they wait...for the ominous blip on a radar screen that could unleash a holocaust” (ibid). Neither industry nor media reported on the grittier aspects, such as stories of the men sent home when they were discovered with

Iñuit women in their rooms or, as Dr. Howerd saw on his way to the Arctic, the women who “worked the trains” to fleece the men hitting civilization after months on the DEW Line (Howerd 1960: 32).

Such concerns were certainly not raised in the pages of *Dewline Polar Echoes*, the radar system’s monthly magazine that was published from 1956-1959 by Federal Electric Company at its headquarters in Paramus, New Jersey. The purpose of the publication was to keep DEW Liners posted on news and activities of their fellow Liners, to give them some laughs, to supply information on company matters, and to bring news of the DEW Line to folks at home so that they could feel closer to and proud of their family members sacrifice, stationed for year-long duty at the remote sites. For the burgeoning military industrial complex, the monthly DEW Line fanzine was an opportunity to finesse its Cold War public relations schemes.

Despite the industry’s disregard for Natives, many DEW Liners were genuinely excited by the chance to work with Iñuit and they were also very proud of them. References in the *Dewline Polar Echoes* to Iñuit, almost always using the possessive ‘ours’, relay information on local residents’ activities at the time: “Some personal messages from our Eskimos here at FOX-D were taped up and sent to Edmonton and Hamilton where relations and friends of our Eskimos are being treated” (Federal Electric Co. 1959b: 13); “Our regular Eskimo...is fast becoming our ‘Bumper’ pool champ” (Federal Electric Co. 1959c: 7); “Winter has set in; but in spite of his efforts to snow us in, Charlie Klengenber, our new Eskimo, has made quick work of the snowfalls to date with the D8” (Federal Electric Co. 1959a: 5). When a rare female doctor was rumored to be arriving at FOX Two, a report from the station joked: “it appears that an attempt is being made to irradiate the ‘skimoes in the area, with a mysterious ray, X is the term used, and the lady is to perform the aforementioned irradiation” (Federal Electric Co. 1959b: 14).

Some DEW Line employees took a special interest in Iñuit language and culture, and part of this is reflected in the pages of *Polar Echoes*. Carm Celentino of PIN Main (Cape Parry, NWT) reported that the entire station turned out to help give a Christmas

party “for the Eskimo people and especially for their children’ (Federal Electric Co. 1959a: 6). Celentino wrote that the festivities started with a blessing by a priest, then he (Celentino), acting as MC, gave a short explanation and welcoming address in both English and Iñupiaq. Speeches followed, ending with one by “our Eskimo friend, Joe Thrasher, on behalf of the Eskimos” (ibid). Celentino’s report also reveals that he wrote poetry, enjoyed some good music by “Eric Lester and his Eskimo Hawaiians,” and that he assisted another group of “Eskimo musicians” on drums. He was delighted to report: “an impromptu dance was held, the Eskimos, both children and grown-ups, gave many of us our first view of an Eskimo baille” (ibid).

Several of the stations reported on Christmas parties they had thrown for the children of Iñupiat employees, and many reflected that the difficulty of being separated from their families during the holidays was lessened by how much joy it brought to give parties and presents to the kids. Forty-five children at FOX DLM received presents and had all the Coke, hamburgers, and French fries they could eat while they watched “Snow White and the Seven Dwarfs” for Christmas (Federal Electric Co. 1959b: 6).

### ***The Thrilling Cold War***

A key ingredient in the DEW Line’s social mixture was a pervasive Cold War ideology. Security was “something to think about,” as the DEW Line magazine reminded readers. All persons involved with the air defense system had to be aware at all times that these types of classified defense projects were “natural, logical targets for enemy agents” (Federal Electric Co. 1959d: 3). The magazine editors reminded workers that enemy agents had long-term strategic programs to subvert the public, but other prongs included direct infiltration of industries handling defense contracts. This infiltration was being carried on as never before, one warning continued, but it was difficult to recognize the real and active enemies whose design was to perpetrate espionage and sabotage. Everyone was suspect, and the magazine informed the DEW Line population that, “the subversive tide directed from Moscow will leave no stone unturned, to attain communist objectives” (ibid).

This was a curious message for local residents to absorb: trust us, but trust no one. Don't be overly enthused, don't let your good nature or need for recognition lead you to indiscriminately help those less fortunate than yourself, and do not speak to your families and friends about classified information (it is not fair to burden them with the knowledge) (ibid). Residents were warned that "Saboteurs of the Atomic Age" were a far cry from previous traitors, and that nothing less than the survival of the planet and mankind was at stake (ibid).

Richard Gordon believed that the Cold War certainly did instill fear in people, commanding them to watch for spies and warning against talking to strangers. "They were always on the alert," he said (R. Gordon, July 24, 2008, Herschel Island, Yukon Territory). Gordon also observed that a highly secretive DEW Line society was strengthened by the fact that once people gained positions at the sites, they protected them and followed orders – i.e., they did not mention what was going on at the base during their time off for fear of losing their job.<sup>44</sup> Gordon said that there were secrecy stories from people that worked there "that you wouldn't believe" (July 24, 2008, Herschel Island, Yukon Territory). In Kaktovik, Carla Sims Kayotuk remembers hearing about Russians trying to attack them when she was growing up, but mainly from her uncle. She thinks that people living near DEW Line sites received a heavier dose of Cold War messages, although her father (a tank DEW Liner) did not scare his children with them.

The only mention of communist infiltration made in Doctor Howerd's memoir regards the infamous Moscow Molly, whose sultry voice came over the pole from the USSR as she played popular American songs interspersed with propaganda messages. Addressing her American and Canadian "fellow workers" and "friends" working in the Arctic radar stations, Moscow Molly tried to convince DEW Liners to give up their misleading, war mongering capitalist masters and abandon their work.

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<sup>44</sup> "So it was something that was put upon you - again, we did not understand what kind of a war we were at or what W-A-R meant but if you leaked it out we were going to hurt everybody so we were hush hush." – Richard Gordon.

For a place where a main complaint of employees was boredom, the DEW Line made an ideal setting for Cold War espionage thrillers and sci-fi horror movies. One fictional work of the era, *Dale of the Mounted DEW Line Duty* put the Arctic radar system at the center of heated international action replete with savvy Mounties out-maneuvering Dew-Line-wide communist spy networks in which every “swarthy” communist infiltrator had an unhealthy, sallow complexion and shifty eyes (Holliday, 1957). Beyond the fantastic plot and plenty of high-tech fodder for militaristic technophiles, the book contains a considerable historical information on the DEW Line. While the intrepid RCMP voyages across the Arctic, the reader learns about the network of long thin lines on the tundra made by the tractor trains that ferried supplies to the sites, failed early attempts to deliver bulldozers to the sites by dropping them with parachutes out of planes, and “Eskimo-developed” ways to test ice thickness (Holliday 1957: 37, 40, 41). Furthermore, no Arctic thriller would be complete without Navy frogmen in frigid water being mistaken for seals and shot at by Inuit (ibid: 42).

Holliday includes this information alongside a detailed description of how “the Eskimos hadn’t thought much about money before...It had quite an influence on their way of primitive living” (1957: 44). “Already these fellows have caught on,” one character was happy to report, and it was charming that boys liked U.S. officer badges on their parkas, girls liked lipstick and finger-nail polish, and all Eskimos were fascinated with chemical hand warmers (Holliday 1957: 45). A serious Canadian bureaucrat in the book pointed out that the Canadian government arranged to bank all but \$120 from each Native’s pay – the authorities did not want the money squandered and they knew the jobs would peter out. (The book did not mention if the Natives wondered whether the government had any right to withhold their pay.)

The freedom afforded by fiction allowed suspicions about the Cold War military build up to be voiced through characters whose (Canadian) patriotism was unquestionable. Throughout *Dale of the Mounted DEW Line Duty*, Dale, the tough-minded Mountie, had several occasions to ask members of the Canadian Defence

Research Board and military officers questions such as: “Do you feel that the three radar lines will be worthless by the time they are completed?” (Holliday 1957: 37).

This Cold War mythology was also rich with fantastic Arctic stereotypes. The spy network communicated via messages “encoded” in Inuktitut syllabic on the bottom of tiny Inuit soapstone carvings. The messages to coordinate the system-wide sabotage were delivered by the Inuit carver, who traveled by dog team to all the sites and sold the special items to certain radio operators. Other secret operatives were busy bumping off Oblate Fathers and traveling far and wide to all the Inuit communities while masquerading in the missionaries’ costumes. The false White Fathers gave wads of counterfeited money to the Inuit and convinced them that working on the radar sites was evil and “can bring bad luck to Eskimo people” (Holliday 1957: 64). Without the native employees, work stalled on the sites even before the communist saboteurs used their mysterious black suitcase with futuristic equipment to send high-frequency radio signals to every radar and take over guided missile tests. Fortunately, a nerdy Air Force officer (who was busy reading a book on anthropology) was able to translate the native language when the Mountie needed it (Holliday 1957: 109).<sup>45</sup> As it turned out, “the Eskimo’s weakness in succumbing to the offer of a higher price might just be the weak stitch in the carefully-woven fabric of international intrigue and espionage” (Holliday 1957: 108).

Thinking back to that era, however, Ben Linn of Kaktovik does not think he was ever afraid of the Russians despite the Cold War message. Mary Ann Warden of Kaktovik did not think so either, and Robert Thompson thought the drills at Lathrop High School (in Fairbanks) were silly and he calculated that Barter Island and Fairbanks would not be the Russian’s top targets. On the other hand, Isaac Panik remembers that he bought the message and the DEW Line provided ease of mind and a feeling of security. He was taught that the Russians were dangerous and that the Cold War was a real threat. Despite those two beliefs, Isaak has never felt like Wainwright played a role in the Cold War (Panik, Sep. 13, 2009, Wainwright).

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<sup>45</sup> The translation yielded this cryptic message: “The sky harpoon is next, on the day of the Great White Fathers,” (Holliday 1957: 109).



“Even if we didn’t dwell on it our proximity to Russian air bases was real,” Bob Pittenger (2000) admitted in his memoirs. Pittenger may have had conflicting thoughts about who the “weak stitch” in any international intrigue might be. A small Army group set up on the outskirts of the DEW Line site doing “super secret work,” Pittenger wrote. “They would never tell us what they were doing but we got them drunk a couple times and they spoke Russian. They were monitoring Russian radio” (ibid: 162). Pittenger marveled at the experiences of one Inuit family who were out seal hunting when a freak wind blew them to Siberia. After the Soviets had determined that they were not spies, they did not know what to do with them and the family ended up going on a Cold War odyssey to Vladivostok, Tokyo, San Francisco, Seattle, Fairbanks, and finally back to Barrow.

On the whole, Pittenger made very little commentary about the Cold War forces that kept him employed on the North Slope. He did recount that when he became the superintendent of the POW-1 DEW site (Point Lonely) he had to pass clearance for secret information, even though he had no more access to information than he had in the past. The military administered to Pittenger an extremely lengthy survey with all manner of personal questions that was to be held in the strictest confidence, and then it was lost. “I’m not trying to imply that the project was inefficient,” Pittenger wrote. “For the size and scope of it, it was very well run” (Pittenger 2000: 145). However, after he had a run in with an Air Force VIP who did not know which way North was and he himself had to override “stupid” conflicting orders from Western Electric, he did indicate that the line was well run despite some incompetence on the part of the military and industry (2000: 144). Pittenger did have complete confidence that the early warning radar line would work in case of a massive attack by the Soviets: “I was happy that the Russians knew we did not have any military, just radar. If we had gone to war, the Russians would’ve blown up a couple of stations in the first minutes of the war and the whole line would have served its purpose. We would have known they were coming” (Pittenger 2000: 146).

Certain aspects of the Cold War did inspire thrilling scenarios for local residents. In particular, Soviet and U.S. nuclear-powered and nuclear-armed submarines plying the

depths of the ocean is an iconic Cold War scenario. Richard Gordon expressed that the subs were an example of the larger problem: “That’s the thing, *we don’t know* what’s out there” (July 24, 2008, Herschel Island, Yukon Territory). Submarines also lend themselves to fantastic stories: submarine films constitute a subgenre of war films that are characterized by a high level of dramatic tension. Given that there were 26 WWII sub movies and 17 Cold War sub movies<sup>46</sup>, it is possible that indigenous residents may have seen one or two at their local DEW Line site. People were certainly aware that there were subs in the ocean and when they saw something strange sticking out of the water, they wondered whether it was a sub.<sup>47</sup>

Arctic submarine stories are very often connected with fears of abduction. This connection may be due to historic stories of whaling ships abducting people. “People live there, under the ice, maybe. Way down in the deep water, there,” remembered Daniel Akootchook (May 5, 2009), before he recounted the regionally well-known story of two people from Canada that were out hunting with their dogs and disappeared without a trace, leaving everyone to conclude that a submarine had abducted them. The Kaktovikmiut, then, were already highly suspicious of submarines when, on a dark fall night, Vincent Nageak and another man saw one and deduced it was trying to get to the beach and abduct them. The two men started yelling and screaming, thinking that a great deal of noise would convince the submariners that there were more than just two people. MaryAnn Warden of Kaktovik remembered that the men had heard a loud humming noise and concluded it was a submarine or another ship.

### ***Love and Marriage***

Certain kinds of social interactions between DEW Liners and locals were not reported on in the pages of the *Polar Echoes*. During the heyday of construction in the

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<sup>46</sup> There were also 6 pre-WWII sub movies, 6 post-Cold War sub movies to date, and 16 futuristic or fantasy sub movies. [http://en.wikipedia.org/wiki/Submarine\\_films](http://en.wikipedia.org/wiki/Submarine_films)

<sup>47</sup> Within the past three years there have been at least two incidents with subs in the Arctic, one involving an explosion in which two British submariners were killed and a third was airlifted to a U.S. military hospital. Bruce Iglangasak believed that people were unaware that there were nuclear subs in the Arctic Ocean until this accident made the news, but other interviewees had certainly heard of them.

western Canadian, for example, Jack Ferguson reported that the RCMP were charging two employees with contributing to the “juvenile delinquency” of a 14 year old girl. The two men had slept with two young women and were found guilty by the magistrate in Yellowknife. “I believe that every effort was made by all parties to keep the thing quiet,” wrote Ferguson (1956). Bob Pittenger remembered that “If you got a girl in trouble you were really in trouble... Very few of the marriages between white men and native girls worked out. As long as they stayed in Barrow it usually was all right, but if they went back to the Lower 48, it usually didn’t last. It was a terrible culture shock for the girls...” (Pittenger 1964: 73).

Hal Phillips engaged frequently in social activities outside of work with the local men and he loved attending dances in Point Lay, but he recalled that the women barely associated with the DEW Liners. His impression was that “they seemed almost bashful - very polite and everything, but they were not open” (Phillips, Dec. 13, 2006, Texas City, Texas). However, Hal’s co-worker<sup>48</sup> at the Wainwright site had a girlfriend in that town, which is perhaps a sign of the difference in a larger community. Most people recall that the rules were quite strict and there was very little contact for many years between the DEW Line and the villages. By most accounts (with marriages as evidence), the situation started relaxing by the late 1960s and early 1970s. DEW Line rigger and longtime Kaktovik resident Walt Audi, who first came to Barter in 1964 and later became the first Tanik to move his family to Kaktovik, said that the prohibition on visiting the village was “kind of a flukey deal.” The rule was that DEW Liners were not allowed to come to the village or they would get fired. “Of course, the village was *in* the radar site, almost, in the old days, over on the bluff there” (Audi, Aug. 8, 2008, Kaktovik).

MaryAnn Warden thought that the best way to characterize the relationship was that Iñupiat “tolerated” the DEW Liners. At the same time that people did not want to be overwhelmed by scores of DEW Liners all over the island, they were seriously opposed

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<sup>48</sup> That particular co-worker became part of DEW Line legend when, in order to visit that girlfriend, he was traveling over the lagoon to Wainwright in a Weasel when he fell through the ice and drowned. His memory was made stronger by the subsequent pan-DEW Line initiative to cut openings in the top of every single Weasel at the radar sites.

to DEW Line policies that attempted to separate male-female relationships that eventually occurred between the two groups. MaryAnn frowned with anger in describing how her “uncle Jack” (a tanik DEW Liner) and her aunt Alice left the village since they were not allowed to be together.

“There were some that were nice. Well, one of them married my aunt.” MaryAnn Warden remembers that the DEW Liner Jack France was beloved because he used to go out hunting with the men, which is how he got to know her aunt. He was also an excellent singer and a fantastic cook who would only sing while he was cooking. Warden remembered that Jack France was the one DEW Liner the children used to run after and try to catch whenever he came down from the base. Jack France married MaryAnn’s aunt in the early 1950s, probably the first DEW Liner at Barter Island to marry a local. He was subsequently banned from visiting his wife. Forced to choose between his job and his wife, Jack Frances quit his job at the DEW Line and, with his wife, moved away from Barter Island.

“There wasn't supposed to be socializing between the two, I think. But, my mom and dad ended up together anyway,” said Carla Sims Kayotuk (May 29, 2009, Kaktovik). When her father and mother started going out, the DEW Line sent somebody down to the village a few times to try to order him back to the site, but Carla’s mother’s family hid Mark Sims in their house. In order for him to move into the village and marry her mother, Mark Sims had to be adopted by the tribe. Carla Sims Kayotuk thought that about seven DEW Liners had married local women. Several of the couples stayed in Kaktovik for a period of time after their job at the DEW Line ended, but Carla’s father Mark Sims was the only one who (until his premature death) stayed permanently in town.

Alice Agiak claimed that she did not really notice any relationships between DEW Liners and local woman when she was young, and that it was later than couples began to form. Smiling at a picture of herself dressed up at a DEW Line function, Alice thought the workers there were “pretty nice” when they invited the villagers up for Christmas and Thanksgiving (Agiak, May 31, 2009, Kaktovik). Agiak commented that the DEW Liners did drink a lot, but that they were friendly. Nora Jane Burns remembers

her aunt getting ready for a community dance and that it made things more interesting for the young women that military men would be coming.

Upon seeing a photograph of five DEW Liners posing in front of the fireplace in a Fairbanks bar in 1967, both MaryAnn Warden and Alice Agiak were able to identify them and Alice had dated one. (Alice's brother John Niglik took one glance at the same picture and quickly identified the bar as Tommie's Elbow Room).

Harry Merriman did see socializing and what he called "short term relationships" in the larger city of Barrow during his years on the DEW Line. "And I'm sure that didn't help some of the females. Probably confused the girls." However, he hardly saw any evidence of sexual relations between DEW Liners and locals at other sites, particularly on Barter Island since Kaktovik was "more of a Native village" (Merriman, March 3, 2009, Fairbanks).

As evidenced by Hal Phillip's co-worker who perished in the weasel, DEW Liners had been dating women in Wainwright since the 1950s. Betty Tulugak (2009) of Wainwright remembered that "it was normal to have military guys" and that one of her cousins had a daughter by a DEW Liner, although they did not marry and the father moved away.

Considering the major social impacts of the DEW Line, Sammy Lennie said, "I could say they did leave a few DEW Line babies behind. [] I have a few DEW Line relatives. We used to call them when we were kids 'DEW Line baby'" (Lennie, April 3, 2009, Fairbanks). Sammy remembers one couple in Tuk who did marry, but the husband still lived at the site and would visit his wife in town. "They had pretty strict rules about females on the DEW Line," Sammy said. Later these rules were relaxed, and girls in Tuk liked to party with the DEW Liners. However, Sammy remembered that at some point in every party, "it got pretty scary for DEW Liner, being the only white guy and everybody else is Native, it got time for them to go home." As the evening progressed and plenty of alcohol was consumed, parties in Tuk got "pretty rowdy – *really* rowdy" (Lennie, April 3, 2009, Fairbanks). Still, some DEW Liners would head to town with a stash of booze to go curling, to party at the RCMP, and to try to pick up girls. It was quite common,

according to Sammy Lennie, for the parents of the girls to raise any children born of these unions.

As James VanStone found in Point Hope, some Native men were displeased with these developments. James Tazruk of Point Lay expressed disapproval of the ‘DEW Line baby’ trend and mentioned that it reminded him a bit of the movie “Braveheart” with Mel Gibson, “when they were trying to breed it out. They are trying to take the Native lines over or something” (Sep. 24, 2009, Point Lay). Of course, the DEW Liners were not trying to take over Native bloodlines; they were simply going after women – one of the most consistent impacts of militarization throughout history and around the world.<sup>49</sup>

### *Women*

Historically, Iñuit were baffled by the all-male expeditions to the Arctic in part because they could not fathom why Taniks would want to travel without women. Several Iñupiaq informants for this research were adamant in their description of a completely egalitarian traditional society in which women’s work was as highly valued as men’s, and the early era of military activity in the Arctic did not change that. Women could not enlist as soldiers, but during World War II, women in Yupik and Iñupiaq villages had been allowed to enlist with the Alaska Territorial Guard. Roy Nageak of Barrow said that his mother and several women in town learned Morse code when they were in the ATG. Arnold Brower Sr. of Barrow fondly remembered working alongside his wife for the military during WWII, folding parachutes and taking care of equipment (Brower 2000). Many women earned money sewing mukluks and clothing for men at WWII-era bases.

Although there could be nostalgia and a rosier representation of history at play, the question is whether the DEW Line, as militarism is thought to do, introduced or reinforced a gendered nature of power and perspectives of a masculine-dominated world to the western Arctic. During the Cold War, American defense planners tried to shape the private institution of the family to fit the military demands of the national security state. To this end, they promoted policies that domesticated civil defense programs by

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<sup>49</sup> This author was invited over to POW-Main in Barrow for cocktails by a very friendly DEW Liner, who was distinctly less friendly when I inquired about bringing along my boyfriend.

constructing them as home and family issues. The ideal family included a *non-employed* mother-homemaker as second in command under the leadership of the decision-maker husband (McEnaney 1996). In mainstream U.S. society, this process was facilitated by the fact that it depended on conventional gender role arrangements and *not* on the radical notions of independent women workers that labor shortages during World War II had required.

The DEW Line sites were male-only enclaves for the most part of their operational years, and it was only in the 1980s that a few women began working at them. Originally, the main representation of women at the sites was in the form of girlie pin-up posters. Inuit men were allowed to work and, often whether they were actual employees or not, play pool and poker, become ping-pong champions, and generally participate in the DEW Line world.

There is evidence that employment on the DEW Line did cause food shortages for employee's families at times, and this was an issue that the Canadian government was highly sensitive about. The employees themselves were fed from one to three meals per day, but their families were not eating at the sites and their main provider did not have time to fish and hunt for them. The situation was sometimes exacerbated by delays in orders from the HBC, and particularly acute food shortages occurred at three sites in Canada's western Arctic in the winter of 1956. In light of the Canadian government's previous embarrassment from instances of starvation, they would have preferred that letters like this, sent to the head cook at a radar site from a local Inuvialuit mother, never came to light: "To sir cook - Would you please let us have a piece of meat to cook even though its small. We got nothing to eat. My children will be starving while there [sic] Dad working and getting good meat every day while we get hungry having nothing to eat."

The Kaktovikmiut have many stories of women managing to hunt, fish, and take care of the family when the men were working at the DEW Line. Nora Jane Burns' grandmother used to go sealing with her cousin whenever their husbands worked. When her father was working at the DEW Line, Alice Agiak and her mother went fishing and

hunting. Alice has also steered the boat for her family's whaling crew herself and thinks it is ridiculous that women in other villages don't participate. She also found it frustrating in Canada that when they were out on the land, the men did all the work and thought she was strange for wanting to help. Alice and others assert that Kaktovik women are particularly liberated.

Because her husband was away working at another site, Mary Akootchook took it upon herself to hunt caribou, seals and polar bears to feed her family. Mary's daughter Jane described her 80-year old mother as one of the very few truly independent and liberated women, because she was completely capable of raising a family and expertly executed every aspect of hunting and survival. One time, Mary grew frustrated when her husband Isaac had been stationed at a remote DEW Line site for several months, but Isaac did not think he could request a transfer back to Barter. Mary marched up to the DEW Line to talk to the BAR-Main station chief herself, and her husband was transferred back to Barter Island the very next day (J. Thompson, Aug. 2005, Kaktovik).

Other women were not as fearless. Ruth Tagarook, who is the same age as Mary, was born at a nomadic camp on the inland side of Barter Island. She grew up and lived in or around Kaktovik her entire life and married a man who came to Barter from Wainwright to work at the DEW line. Although it seems inconceivable, Ruth Tagarook claimed that she has not been to the DEW Line site once in these past 50 years. Ruth never went for the weekly movies, nor the holiday feasts, nor to the famous Barter Island Social Club, the luxurious bar and lounge out of which alcohol flowed to the now-dry community for decades. She did not actually say that she was afraid of the DEW Line site, but she made it clear that she had no desire to go there and insinuated that it was a place to be avoided.

To whatever extent new forms of patriarchy and the objectification of women were imported, most interviews left the impression that Iñupiaq and Inuvialuit residents paid little heed to them. While women nationally made progress towards equality by joining the workforce during WWII, many of them were re-confined to traditional roles during the Cold War. In Kaktovik, many women were obliged to hunt for their families



while their husbands worked at remote DEW Line sites. Women in Kakovik today are proud that their village produced incredibly strong, liberated and independent women.

### *Alcohol*

The important job of building and maintaining a defense perimeter for all of North America served as a great motivator for DEW Liners (at least in the pages of the *Polar Echoes*), but life on the Line was equally inspired by another central subject: a never-ending and serious quest for beer and whiskey. The DEW Line created a veritable cult of alcohol in Alaska's Arctic. Management during that era was largely permissive of drinking while loneliness, boredom, camaraderie, the lack of social deterrents and the sheer availability of alcohol exacerbated the men's thirst. This created an authorized and sanctioned drinking atmosphere and an efficient system in which alcohol flowed up to and throughout the radar network in enormous quantities. The regular and over-consumption of booze was celebrated among DEW Liners like war stories. Ingenuity on the part of locals and DEW Liners to get inebriated is widely respected and stories about this are shared often. DEW Liner stories about Native drinking ignore any reference to the repercussions of alcohol in native communities: the stories are funny, friendly, cute, brotherly, and patronizing. Natives recognize the large influx of alcohol as the most significant and a very negative social impact of the DEW Line. Alcohol reduces inhibition, thus it is not surprising that much of the evidence about alcohol also mentions sexual relations.

Briefly tracing the history of Point Lay, photographer and author Bill Hess discovered the significance of the radar station for the Kalimiut. "Following construction and manning of the DEW Line in the mid-1950s, Kali slipped into decline. 'It was the alcohol,' village Mayor Amos Agnassaga told me. 'The DEW Line brought alcohol into the village. It really hurt the people.' The military bar was open to a community that had never before had a convenient source of liquor. DEW Line personnel used drink as barter in the village. Social problems grew. The quality of life deteriorated. 'The people who didn't drink left first,' Amos recalled. 'Then, after they closed the school in 1958, the

whole village left” (Hess 1999: 85-6). A decade earlier, Amos Agnasagga had described this in greater detail:

*“I liked living in Wainwright but I thought about the place I grew up. After all us kids went away to school the DEW Line was about the only thing left at Point Lay. I have to strongly blame DEW Line for part of the village decline. When the DEW line first started I was growing up, in the 1950s. The first bunch of men were construction workers and they used to come around with alcohol all the time and let<sup>50</sup> the whole village get drunk. At first people thought it was something fun. After awhile the steady workers at DEW-line did the same thing. There was nobody to see the future of how it was hurting the village. They didn’t have local option laws in those days. Pretty soon the steady village people started leaving. Then the next thing you know, it was an empty town. That’s why we didn’t have enough kids to keep the school.*

*Now DEW-line keeps pretty much to themselves and the village keeps to itself. But we’re on a friendly basis and willing to help each other. It’s changed from back then and now there’s hardly any communication between the two groups.”* – (Amos Agnasagga, quoted in Yarber 1989).

One man (‘John’) in a North Slope village who had worked for over a decade on the DEW Line did not want to divulge very much information about the radar system because he “still gets money from them!” His job involved all aspects of expediting goods to the sites all over the slope: keeping track of what each site needed, loading the gear in the plane, flying in the plane with the gear alongside the pilot, and unloading it at every site. In describing the amount of alcohol that moved through this system, John rolled his eyes, shook his head, and asserted that it was an unimaginable amount. He joked that it was “their” main business and that certain people made an extremely rich profit on the alcohol delivery system. James Tazruk of Point Lay, reflecting on how

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<sup>50</sup> ‘Let’ does not mean the same thing in North Slope English as it does in mainstream English. ‘Let’ is almost always used for ‘cause’ or ‘make/made’ in the sense of coerce (i.e. the teacher let me do my homework, my parents let me stay home when I wanted to go hunting).

travel along the coast was changed by having radar sites every fifty (or one hundred) miles, described it as “bar hopping” (Sep. 24, 2009, Point Lay).

Each site had an employees’ recreation committee, which was incorporated and had a liquor license (in addition to managing dark rooms at each site, saunas at some, gyms, game rooms with ping pong and pool tables, etc.). A shot of Chivas Regal sold for 85 cents at one site. Each Auxiliary and Main site, at least in Alaska, had an expansive storeroom with an entire wall covered with deep metal shelves exclusively for hard alcohol (fig. 20). The price for a case is about the same as what people currently pay for a single bottle in North Slope villages today. “You’ve got to watch the alcohol,” Bob Castonguay, a DEW Liner at Point Lonely, said in a 1979 newspaper interview. “In my four years on the DEW Line, I’ve seen six guys carried out on stretchers because of their over-indulgence after work. There’s nothing else to do” (Associated Press 1979).

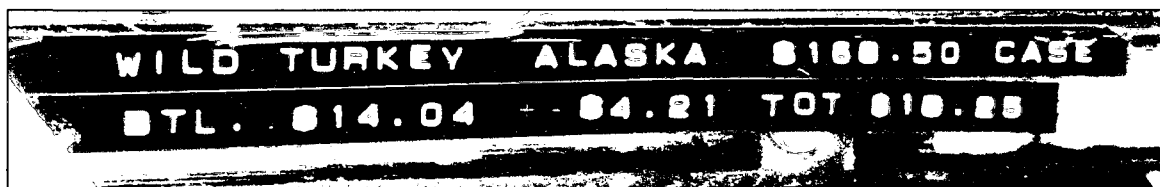


Figure 20: Shelf in liquor stockroom in LIZ-S (Wainwright)

On his return trip to the Arctic after his first R&R break, Bob Pittenger’s luggage consisted of 36 fifths of Bushell’s whiskey and 18 pairs of socks – one fifth in each sock. After Pittenger’s stints in the army and at a mining camp, a union agent tracked him down in Fairbanks to hire him to work on the DEW Line project. Pittenger, just in from the bush and with plenty of cash, had no intention of working anywhere until he made up for months of missed partying. He wasted no time implanting this plan, yet – in a style reminiscent of the Yankee whalers - he woke up the next morning in a plane on the way to Barrow. Another of his favorites stories involves a plane crash in the Beaufort Sea. Everybody was able to swim safely to shore, except one well-known drinker who swam out in the ocean to save his bottle of whiskey and then drank the whole thing once on shore.

One of American DEW Liner Clive Beckman's memorable 'war stories' recounts his traveling Sector Crew's reputation as hard workers and "hard-partying dudes" who traveled with a travel trunk full of Mexican food. Their first night at each site was Sector Party Night, but POW-2 (Lonely) was out of alcohol when they arrived for Thanksgiving weekend. The Station Chief was a Cutty Sark man and the entire crew was made up of partiers. POW-2's booze order was at Barrow, 80 miles away, but an unauthorized chartered flight would probably cost the Station Chief his job and bring down the wrath of the Air Force. Despite these risks and the almost zero visibility outside at the time, an Iñupiaq pilot with a Cessna too small to carry the whole order was contracted. When the pilot successfully flew from Barrow to Lonely through an almost complete white out, he could not even open his own door as he had packed in the entire order around him.

The memoir of a teacher on Baffin Island summarized the impacts of the DEW Line and alcohol:

*"In the late 1980s when I arrived the people were still struggling with the challenges of acculturation...The DEW Line never did manage to employ more than a small handful of local Iñuit on a full-time basis. The few positions that Iñuit held were usually at the lowest level and often took men away from their families for several months at a time, which created strain on the family unit. As well, the DEW Line had negative effects on the hamlet by making alcohol available to the community. DEW Line employees, most often single men, fraternized with women, especially younger women from the village, and often permanently disrupted family units in Anurapaktuq. Many men fathered children there, yet never stayed long enough to provide support for those children" (Tompkins 1998).*

Akin to the children sired by Yankee whalers, there is a "DEW Line generation" along the Arctic coast and the same term also evokes the concurrent transition to a largely starch- and sugar-based diet. More broadly, it is reasonable to question whether a significantly high percentage of the Taniks who have come to the Arctic within the past

150 years (i.e. whalers, traders, Jesuit priests, roughnecks, DEW Liners) have been alcoholics, and how many of those genes were passed on while they were in the North. Perhaps more significant than any genetic components, the drinking tradition that was imported to the Arctic was not one of moderation or cultured appreciation – it was a largely a tradition of chronic abuse, bingeing and machismo contests.

While the wide availability of alcohol caused so much trouble, the lack of it had its own issues. Doctor Gareth Howerd related that, during his tenure as medical doctor in eastern Canadian sectors during the early years of the line, there was a ban on taking alcohol to the Arctic because of the danger of men becoming intoxicated, falling in the snow, and being frostbitten or frozen to death (1960: 38). There had been beer parlors in Canada when work on the sites first began, but prohibition was soon implemented, making men crave alcohol and go to any length to obtain it. The doctor was often called to the base to attend to men suffering from delirium tremens after they managed to get alcohol, and eventually a ration of four cans of beer per week was imposed. Dr. Howerd recounted deaths from the consumption of various poisonous moonshine mixtures and transported patients to Montreal who had gone into moonshine-induced epileptic fits. He learned of DEW Liners brewing hootch out of after-shave lotion, anti-freeze, boot-black strained through bread, raisins and even beans (Howerd 1960 125).

In the online DEW Liner community's collection of "DEW Line 'War' Stories," Bucky Harris's story entitled "DEW Line Ingenuity" describes his trip as Sector Supervisor to BAR C (Tununuk Camp, NWT). Strangely, the entire crew was nowhere to be found when his flight arrived with the chaplain, mail, fresh fruit, produce, and new movies. Eventually forced to walk to the site, Harris and Chaplin Mauer searched the main buildings and deactivated the Doppler alarm that was ringing in the control room. The Supervisor and the Chaplain then made their way to the offsite garage and found the crew using the site's welding equipment to boil fermented dried fruit mash. They had made a copper still from construction leftovers, and soon the entire group was enjoying a few belts of 180 proof with grape juice before dinner.

The DEW Sites in Canada soon lifted prohibition for white DEW Liners and for a period rationed their beer while maintaining prohibition for Natives. Eventually all restrictions were lifted.

### ***Barter Island Social Club***

‘John,’ the man whose longtime job had included loading and unloading supply planes, confirmed what all other evidence supports: the Barter Island DEW Line site was the heaviest drinking site on the Alaskan coast if not in the entire western Arctic. “Too many Natives go there,” he said.<sup>51</sup> BAR-Main was the largest site in Alaska, and the Barter Island Social Club was (and is) the stuff of drinking legend in the region. “Barter Island was the worst site – they drink the most there, even in the village” (“John Imnaiq”, Sep. 15, 2009, Wainwright).

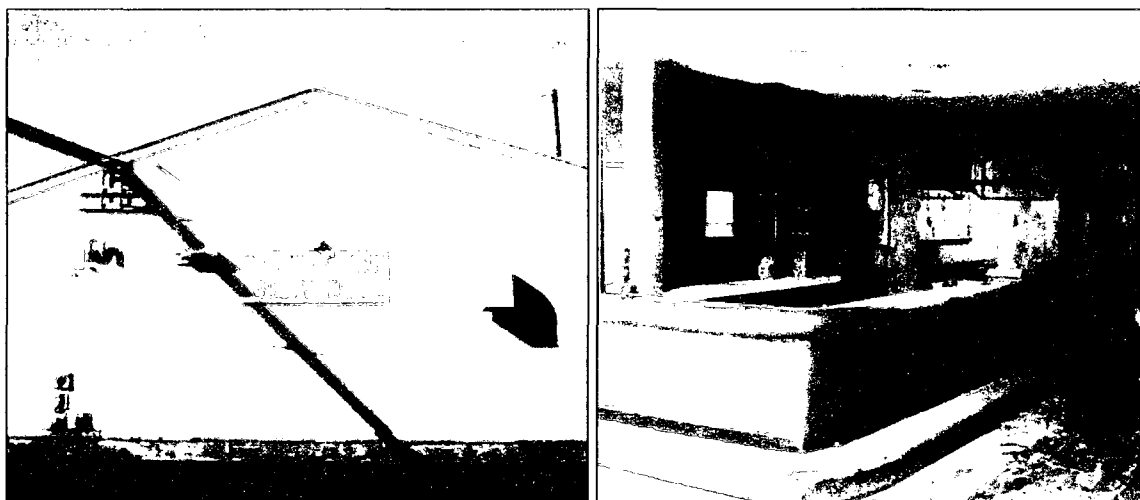


Figure 21: The Barter Island Social Club in 2005, before demolition.<sup>52</sup>

One summer, in addition to his normal full-time job as a technician on the DEW Line, Harry Merriman took on an extra 5-6 hours of work as a bartender in the in/famous Barter Island Social Club (fig. 21). The bar’s nickname was “The Tiki Club.” To this day,

<sup>51</sup> He then qualified this by saying “well, *every* site got a bar and town people would go – but here it was far!” (The Barter Island bar was within easy walking distance from the village. In Wainwright, it is almost six miles to the site.) “They don’t care! They go – some walking, some with Skidoo, some with dog team” (“John Imnaiq”, Sep. 15, 2009, Wainwright).

<sup>52</sup> The community wanted to take the building but it was designated a contaminated site.

Merriman is incredulous that he earned more money as a bartender than he did from his regular job. According to Harry, the daily activities of watching movies and drinking in the bar were essentially the only forms of social rest and relaxation. Harry remembers one elderly Iñupiaq employee who drank regularly at the Barter Island Social Club, entertaining the men with tricks such as touching his nose to his chin. As regularly, the man's wife would come in yelling and drag her husband out by the ear, which was equally entertaining to the men. Merriman, however, took his responsibilities as a bartender on Barter seriously and quit serving anyone who appeared to be getting too drunk (March 3, 2009, Fairbanks).

"Whiskey and Eskimos didn't mix very well," was Bob Pittenger's summation of this problem (2000: 73). Pittenger's entire heavy equipment crew at a DEW site was cheered when one of their operators managed to make off with an entire pallet of beer from the Navy cargo. They locked it up very securely in an old cat train cook wannigan, yet the beer, very mysteriously, kept disappearing. Pittenger admired the ingenuity of the Iñupiaq children he finally spied at three a.m. as they climbed atop the wannigan, pried off the small smoke vent, and lowered the smallest child down on a rope to which he then tied six-packs (2000: 41).

Robert Alexie worked on the DEW Line sites in Tuktoyaktuk and Tununuk during construction in 1956 and 1957, when alcohol was banned at the sites. "[Y]ou could drink but you had to sneak it. But not too much. There was a lot of brew around Tuk," he said (July 6, 2008, Fort McPherson, NWT). When asked whether the sudden influx of money changed the social order in the hamlets, Alexie explained that it did - not because young inexperienced men had more money than older, established trappers, but because of the simultaneous availability of alcohol. The opening of the first liquor store in his hometown of Aklavik also occurred in 1957:

*"Well, money start coming and then booze start coming. I bought a bottle off a cook for \$18. You know, whiskey was a great thing back then. That was big mistake, nobody asked, nobody knew about it. The old peoples, they knew - my father was born in 1887 and a lot*

*of old people seen that in Dawson, they talk about it, they seen it. They seen how people act to it.” “[N]obody said anything about liquor was bad for you, nobody said nothing. Until the '70s, eh? Nobody knew about it, nobody knew there was help. There was help out there, nobody mentioned. I always wondered how come. I worked long time on the rigs after that too and I gave myself a real time. They should have told me there was help out there, they should have told me that, they should have mentioned that...Alcohol is the biggest problem in this part of the country. The whole damn North” (Alexie, July 6, 2008, Fort McPherson, NWT).*

Nora Jane Burns of Kaktovik remembers how scary it was as a child when her grandfather and uncles, after working at the station and drinking, would come home wild and loud and incite fighting within the home. Due to living at DEW Line sites, Sammy Lennie grew up believing that all men had strong whiskey breath. “Drink drink drink drink drink,” Sammy Lennie said, describing the life of DEW Liners, including his father (April 3, 2009, Fairbanks). His mother never drank, but her attempts to stop her husband during the two decades he worked on the DEW Line were in vain. Sammy also noted that the bar at the radar site in Tuk seemed to have undergone a great number of renovations and was in general the first place looked after.

### ***Conclusion***

The nature of DEW Line society can be gleaned from a wide variety of sources, ranging from individual Inuit to the calculated messages of industry. The accounts of men from sharply divergent backgrounds who were involved in (and themselves shaped by) the creation and operation of the radar system shed light onto the complex societal attitudes at play in the DEW Line recipe. Most interestingly, the images of DEW Line society that were projected by the Cold War military industrial complex, especially regarding cultural interaction between Whites and Inuit, bear a striking resemblance to the fictional Cold War thrillers of the time. However, neither the official images nor the fictional thrillers bear much resemblance to what appears to have been the situations or perceptions of the individuals actually involved in the event. This disparity reaffirms the



values of an ethnographic and an ethnohistorical approach to studying militarization: directly under the surface of the official story, an exponentially more interesting and complex array of stories unfolds. Exploring various perspectives on DEW Line society illustrates the incomplete view of history that would be perpetuated if only official accounts of events were presented by the same powers that create and profit from the events.

The voices of indigenous Arctic residents illustrate how the global geopolitical event that was a nuclear deterrence system was an extremely localized occurrence for the Inuit, to the extent that there was and is little knowledge of or concern for the larger project.

One group is not represented in this discussion: actual military personnel. This is not because the military aspect of the DEW Line was or is unimportant. What emerges with this description of DEW Line society is that an event can be very strongly connected to global militarization despite the fact that very few actual military personnel are present and despite the fact that many other actors see the military individuals as inconsequential. Furthermore, the increasingly close and codependent relationship between the military and corporations on the DEW Line illustrates another central step in the evolution of modern militarism. This blurring of any distinction between civilian and military is a key characteristic of the militarization of society.

A related phenomenon inherent in the local manifestations of militarization that is elucidated by ethnographical inquiry into DEW Line society is that, despite the monolithic infrastructure and federal policies behind it, the main results are individual relationships that have little to do with the Cold War. Normalized relations between DEW Liners and locals could be understood as a result of militarization, but it could also be argued that nothing served to undermine militarization more than those relationships. DEW Liners who befriended the community and the few useful infrastructure items from the DEW Line were quickly differentiated from the institution and were accepted on their own terms, as entities removed from and innocent of the policies that resulted in them being in the Arctic. The DEW Liners who were accepted by the community became as

much barriers between the people and military as they wed the two. That their human relationships were opposed by the military policy instilled a deep-seated mistrust of military policy and its anti-human perspective.

It is understandable that Jack Ferguson's ethnographic snapshot of arctic communities during DEW Line construction depicted exaggerated fears over the loss of Inuit culture due to capitalism. Many Taniks believe that groups of people will automatically lose their culture and identity if they lose their indigenous language, when in fact this is not the case, especially among people unfamiliar with the ideology. Many prevalent ideologies about economic issues are similarly fraught, and notions of identity are inexorably linked with how one makes a living. Various understandings of the gift economy of bases are thus to be expected, as well as ideas that money and material goods will supplant a culture. This is not to say that Inuit material and spiritual culture has not changed drastically since contact, because of course it has. However, the fact that someone is an Inupiaq seems to be their foremost self-identifier, not how they make a living. Ferguson's fear that Inuit culture would disappear once they had jobs was grounded in the idea that culture is non-adaptive, unchanging and fragile. Likewise, the equally false idea expressed by Game Warden Rees encapsulates the view that having jobs and money will solve everything.

DEW Line society, in ways obvious and subtle, shaped communities of the western Arctic. The land itself became a bitter enemy to be conquered through the combined forces of modern industry and the demands of the new national security doctrine. Machines replaced people as defenders of the frontline, and men learned to serve the machines as wage laborers while the professional role of women was diminished. The big money those jobs brought enabled people to buy manufactured clothes, musical instruments, cigarettes and alcohol – as well as donate to charity. The arctic Cat skimmers and sourdoughs were familiar with the land and the people, if not always respectful of them. The corporate technicians and other civilian employees - the enduring human side of the DEW Line – shaped arctic societies through their presence, through their progeny, through their relationships with women and their roles as

community leaders outside of – and sometimes opposed to – the DEW Line. There was less time for subsistence hunting and the risk of scarcity involved with that way of life, while the availability of processed food increased along with the health impacts associated with that diet. Basic emergency health care was available through the bases, but that benefit was overshadowed by the heavy drinking that went hand in hand with the DEW Line. Many of these social influences are ones that the Iñupiaq and Inuvialuit of the western Arctic share with people in small, militarized communities globally.

While arctic people's perspectives and life experiences were shaped by their connections to DEW Line society, their way of living was also transformed on a purely physical level by the waste material, radomes, towers, and other infrastructure that reshaped and contaminated areas along the coast. An exploration of those physical legacies is required to understand and analyze the overarching themes of militarization of the western Arctic.

**Chapter Five:**  
**Environmental Legacies along The Trail of the Tundra Daisy:**  
**Infrastructure, Debris, and Contaminants**

***Introduction***

Especially when someone's boat hit the submerged hazard off Seagull Island (near Shingle Point, Yukon), Richard Gordon would hear stories about the spring clean up ritual during the early decades on the DEW Line. Crews would pile garbage, drums, dead equipment, and debris onto old cat trains. They would point the tractor north, turn it on, and let it go across the ice to the open ocean. Sometimes, as is suspected with Seagull Island, the garbage train fell off the ice edge in a bad spot and created a navigational hazard for subsequent generations.

The Arctic is not the only place that where this method of trash management has been employed. In the early days, when McMurdo Station in Antarctica was run by the military, very little was known about the sea life which was hidden by thick ice ten months of the year. Crews stationed there did not think anything could live under the water in such bitter cold conditions and they dumped large numbers of 55 gallon barrels, broken down tractors, and other large trash items into the ocean. Recently, scientists worried about possible risks to the marine environment started studying the garbage. They are creating an underwater map of the trash to better understand how it is distributed and running tests to determine whether it is hazardous and should be removed. Cold-water divers were surprised to discover that the trash has formed an unusual artificial reef that is supporting a variety of sea life.

People, too, can live happily in shelters made of debris while surrounded by waste, much of it toxic. DEW Line infrastructure, trash, and contaminants across the Arctic have been incorporated into the ecosystem at every level. Military industrial material was widely used to construct new houses and provided material to heat those homes in new ways. It created highly entertaining playgrounds for children. To a

landscape devoid of many natural vantage points, it brought lookouts and landmarks as well as gravel roads and vehicles to use on them. On the other hand, many DEW Line materials, particularly transformers and other electrical equipment, contained PCBs and other poisons that have been leaching into the land and sea for over five decades, while the dumps and roads have terraformed and left the landscape around sites vulnerable. Although unconfirmed, most residents suspect that these toxins contribute to high cancer rates. The invisible toxins are psychologically pernicious, and the highly visible 55-gallon drums are everywhere. Most of the towers that were beloved as lookouts and landmarks have already been toppled, and everyone agrees that they would like to see the rest of the sites taken away and everything cleaned up. Few people have any idea how large of a problem that is.

Spending their entire lives adjacent to a DEW Line site makes people intimately familiar with the base's physical make up. They are authoritative experts on the dumps, towers, buildings, radars, and physical history of their town's radar site. At the same time, the scale of the DEW Line's infrastructure is unknown to most residents. Military planners did not present the idea and scope, much less maps and graphics, of the DEW Line project to the people whose homelands were subsumed by it. When they see a map depicting the original sixty-three radar stations stretching across the entire Arctic coast, most people are shocked.<sup>53</sup> Many have assumed that their area of the Arctic is the only one that has undergone such pervasive construction. The shock may be partly due to the fact that they have an intimate understanding of how big an environmental problem just one site can create.<sup>54</sup> With the simple act of showing a map, this research project changed some people's understanding of the DEW Line's impact on the Arctic coast.

Mary Ann Warden of Barter Island had stated that she knew there were stations all the way along the coast, but when she saw a map depicting just the 19 stations in

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<sup>53</sup> Ironically, nearly every proposal for an Arctic science project during the early decades of the Cold War featured a polar perspective of the globe in order to highlight the national security threat that justified the extra expense for the arctic research (Farish 2006). This current research project was introduced in a similar way, which indubitably contributed to its success with funding agencies.

<sup>54</sup> Southerners are also usually surprised by a depiction of the DEW Line sites because their preconceptions of the Arctic do not include notions of widespread industrialization.

Alaska's North Slope, she was amazed (fig 22). "Wow. DEW lines. There were that many? [] Wow. That is so amazing. [] Well, I knew there were some along the coast, but I never saw them this way" (Warden May 28, 2009, Kaktovik).

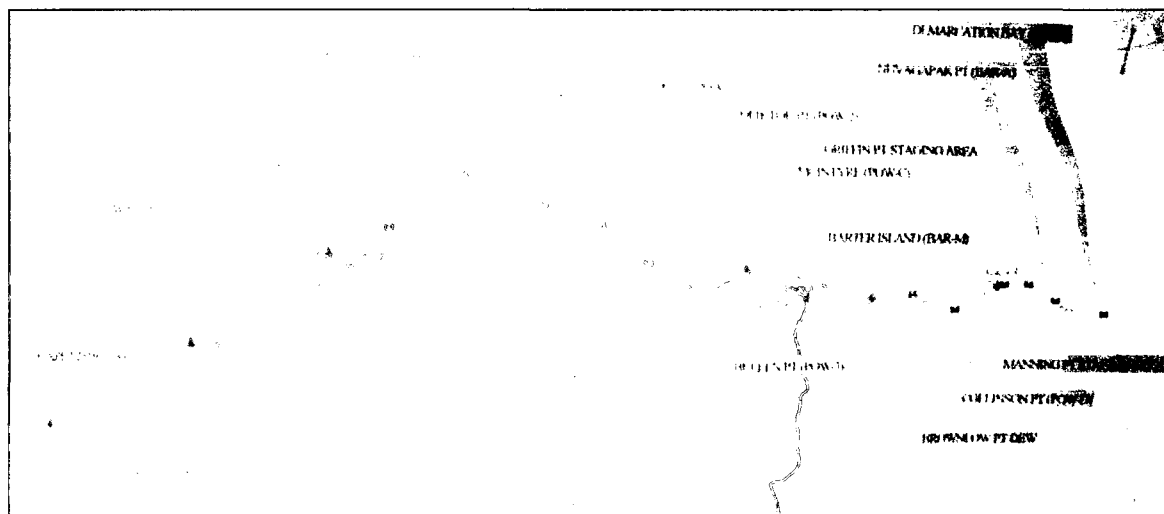


Figure 22: The 19 DEW Line sites on Alaska's North Slope<sup>55</sup>

Nora Jane Burns, also of Kaktovik, had a similar reaction upon viewing a map of all 63 sites: "Holy cow! They went all over. That's a lot. And that was for their radar, huh? It's surprising, because when you are growing up you only think that that was the only site and then later you hear there's some to the East and some to the West and when you go to Barrow you find out they have one too. [] The only ones I would hear about were POW-D and BAR-A" (Burns, July 31, 2008, Kaktovik).

Alice Agiak of Kaktovik, who mentioned during our interview that nothing surprises her anymore, was genuinely surprised as well: "I knew that there was BAR and POWs. But I did not know that there were that many all the way across there. But I know that BAR-Main was the main DEW Line. [T]he only ones I know are all the way to Tuk. But all this here, I didn't know" (Agiak, May 31, 2009, Kaktovik).

The number surprised Robert Thompson as well: "There were *that* many? Well, gee" (Thompson, May 5, 2009, Kaktovik). Carla Sims Kayutok was less surprised: "I

<sup>55</sup> Map (cropped) produced by the Alaska District Army Corps of Engineers.

knew it went all along the coast like every 36 miles or something? I know there's POW sites and BAR sites. But I know a lot of that too because my dad worked there." George Agnasagga, due to his age and experience, including trapping along the coast and visiting the intermediate sites while they were still open, was not at all surprised. George surmised: "And they could have done it all from Denver" (Agnasagga, Sep. 13, 2009, Wainwright).

Despite the varied locations, site infrastructure was completely standardized. Main sites had one more module train than Auxiliary sites (the smaller I-sites had one module and outbuildings). James Tazruk of Point Lay remembered that he went to go see the DEW Line site in Barrow when he moved there: "I just wanted to see if it was the same, and it was exactly the same. Whoever designed them was a one-track mind." Tazruk corroborated the premise that focusing on this uniformity distracts from the very distinct histories of each location and he qualified that the sites were all the same "except the people" (Sep. 24, 2009, Point Lay).

In Wainwright, Isaac Panik's earliest memories of the DEW Line were visits to the site with his father, who knew the station chief. His strongest impression of the base was how very modern everything there was (the site was about 20 years old when he was young) and how different that was from his community, where there were no flush toilets or running water. The contrast, he said, "was like going from the Stone Age to the modern world with all the goodies – pop, chips, fresh fruit..." (Panik, Sep. 13, 2009, Wainwright). The author of a fictionalized novel on the DEW Line had the same impression: "The Kuk River, which separated Wainwright Village and the DEWLine site, might as well have been as wide as the distance between two planets, or the time between millennia" (Griffin 1980: 9).

A little-mentioned but significant factor that contributed to the other-worldliness of the DEW Line sites was that all the sites, from Greenland to the Aleutians, were on a single time zone that was synchronized with Ottawa. The sites that Sammy Lennie lived at in the Mackenzie Delta area were four hours different than local time, and this separation had the most significant effects on local families with members employed at

the sites. Lennie recalled that he would get up to catch the school bus early in the morning, but four hours after his father had started work.

### ***RAdio Detection And Ranging ~ Radar***

Despite their age and deteriorating status, the DEW Line sites, though no longer futuristic, still manage to exude an air of otherworldliness. Much of this is due to their dominant feature – the large geodesic dome that covered the spinning radar dishes and is at the center of every iconic image of the DEW Line. The distinctive, golf ball-shaped domes, ironically similar in structure to an ice igloo, now serve as landmarks over much of the Arctic coast and at related communication systems around the globe.<sup>56</sup> The domes are made of light, straight structural elements arranged to form a hemispheric surface and they provide significant advantages in that the material is very light, no supporting columns are needed, and structural stress is spread out evenly over the entire dome. They are the lightest, strongest, and most cost-effective structure ever designed. Buckminster Fuller invented geodesic domes<sup>57</sup> and once the DEW Line contractors were finally convinced of their utility, the U.S. Marine Corps hailed the geodesic dome as "the first basic improvement in mobile military shelter in 2,600 years" (quoted on the Buckminster Fuller Institute website) (fig. 23). The contract for the DEW Line radomes resulted in a patent and recognition for Fuller that ignited his illustrious career.

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<sup>56</sup> "The most distinctive feature of the station was the bulbous geodesic dome which squatted above the long, low module train. The same housed search radar antennas. Their slowly rotating back-to-back snowplow antennas sent out a million-watt ray of focused radar energy hundreds of miles into the Arctic skies. These giant plastic protuberances hunkering on four stilts gave the station an air of ominous unreality. The buildings and other antennas could be accepted by the landscape, but not this ugly bulb. These electronic warts were positioned every hundred miles across the pate of the earth," (author John Griffin's fictionalized 1980 thriller: *Icy Cape*, p. 8-9).

<sup>57</sup> R. Buckminster Fuller was the author of *Operating Manual for Spaceship Earth*, among other works, and was a well-known inventor, architect, engineer, mathematician, poet and cosmologist.





**Figure 23: Buckminster Fuller<sup>58</sup> and a geodesic radome under construction<sup>59</sup>**

Radicians and other DEW Liners usually refer to them as radomes, but locals refer to them as big balls, balloons, and golf balls. In Fairbanks, wealthy and eccentric landowner and historic preservationist John Reeves added a DEW Line radome to his collection of Arctic equipment alongside the Steese Highway. In the Northwest Territories, one of the radomes from Tuk was reconstructed in Inuvik where it houses a local wireless telephone and internet business. Sammy Lennie cannot believe the irony: “I grew up looking at that big ball and somebody bought it and took it all the way to Inuvik and now I have to grow old looking at that big ball” (Lennie, April 3, 2009, Fairbanks).

A twelve year old Kaktovik resident, (who had previously had a dream about going into the golf ball in her other hometown of Inuvik and finding a swimming pool there), described her school field trip to the radar site on Barter Island as “super duper cool.” “When you go into the ball, you gotta go straight – all the way straight – and then you gotta go up this ladder and then you have to go up these stairs that are curly and when you go into the ball, it’s like you are tiny. It’s really fun. [W]hen the ball moves around in the circle, if we are in it, it will move too fast for us. It was really cool” (Iglangasak, May 28, 2009, Kaktovik).

DEW Line radician Hal Phillips, who worked during the early years of the Line at all three types of stations, also thought the DEW Line was super cool but had a distinctly more technical explanation of the radar system. All the Auxiliary and Main sites had

<sup>58</sup> Photo courtesy of the Buckminster Fuller Institute website: <http://www.bfi.org/>

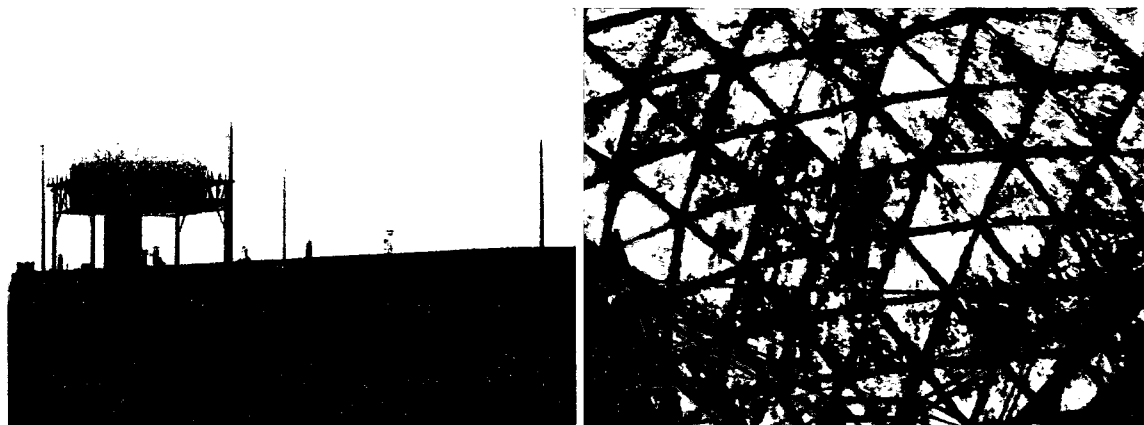
<sup>59</sup> Photo courtesy of the Ollie Eksted & Bell System Memorial: <http://www.porticus.org/bell/dewline.html>

long-range pulse radar systems known as AN/FPS-19 and receiving antennae. Small Intermediate sites, whose only purpose was to transmit, consisted of a single 5-module building, support facilities and Doppler-type radar fences. They were used as gap-filling anchor points between rotating radar-equipped stations. The search antennas at the Auxiliary and Main sites had an upper and lower beam with overlap, but they were very limited for detection of low-flying aircraft, which is why the Intermediate sites had their transmitters. Hal Phillips remembered the crew never knew what they were tracking, but he recalled a couple more exciting situations when the targets actually did come from the direction of Russia and the military authorities ordered a ‘Cease Tell’ to the radar crews: stop transmitting/communicating any information – do *not* report on what could be seen. On a lighter note, NORAD would make seasonal public announcements that the DEW Line stations had picked up an unknown object, crews having determined that it was apparently a fat man in a red suit with some reindeer approaching North America (Phillips, Dec. 13, 2006, Texas City, Texas).

Indigenous residents have incorporated radome technology for diverse purposes. Growing up in the original Point Lay village site on the barrier island, George Agnasagga found an ironic use for the big dome on the point across the lagoon: to site in his rifle. “[T]he dome fit right into the barrel of my rifle and then I set my scope. It was great, I didn’t have to waste no bullets” (Agnasagga, Sep. 13, 2009, Wainwright).

In Wainwright, the DEW Line site was closed down in 1995 and abandoned. The co-located North Warning System radar, activated in 1994, was closed in 2007 due to soil erosion and budget concerns. Locals soon broke the locks off the front door of the old DEW site and scavenged everything of value out of the place (save the exceptionally stout, built-in cedar sauna). As in other communities, the site is used as a destination (it is 5 miles up river) and one of the few places where young people can hang out. For the more adventurous, the block and tackle used during dome maintenance are still hanging from the inside top of the radome. One young man demonstrated a typical DEW Line activity: get the radar itself spinning as fast as possible, climb to the top of it, then leap

out and grab the rope so that you could swing back and forth in the radome while drawing your legs up to swing over the spinning radar (fig. 24).



**Figure 24: Wainwright's DEW Line site LIZ- 3 and radome recreation.**

### *DEW Line Playground*

Sammy Lennie concluded that growing up as a DEW Line kid had major advantages. “For the most part we had a ball because year ‘round, the DEW Line was our playground” (Lennie, April 3, 2009, Fairbanks). Sammy explained how every different part of the radar sites and their adjacent dumps provided endless entertainment and opportunities for adventure. The first military site where his father worked in the Mackenzie River Delta was “Yellow Beetle,” part of an interesting precursor to the DEW Line. The site was commonly referred to as both ‘Army Camp’ and ‘Kittigazuit’<sup>60</sup> and was the location of the gruesome Inuvialuit/Gwich’in battle mentioned earlier. The U.S. Air Force was responsible for a trial installation of three LORAN (Long Range Aid to Navigation) transmitters in the western Arctic from 1947-1950. The system never worked properly, but the master Yellow Beetle station site, at Army Camp 37 kilometers southwest of Tuktoyaktuk, it provided temporary employment and a landmark.

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<sup>60</sup> Kittigazuit is an Anglicization of Kitigaaryuit. Archaeological evidence and oral history research indicates that, before disease epidemics ravaged the population, the Kittigazuit site hosted the largest gathering of people in the Arctic.

During fieldwork for this research, we made camp at an area known as Nulagvik or Skull Cliff, about 25 miles southwest of Barrow and the location of the western LORAN “slave station” (Beetle A) for the system. Evidence of old industrial activity was everywhere on the ground around the area, but it was difficult to imagine that a 625 foot steel tower had stood on the tundra there some 60 years previous. Massive concrete foundations had been required for all four legs of the 300,000-pound tower. James Olemaun of Barrow has traveled this stretch of coast numerous times and reported that he was very surprised, when passing by Nulagvik during a particularly low tide, to see that the entire coastline in front of the small valley had been reinforced with rows of barrels sunk into the sea floor.<sup>61</sup> The tower at Army Camp/Yellow Beetle/Kittigazuit had been toppled over in the early 1950s and, luckily for Sammy and his brother, was lying on the ground there for decades (fig. 25). “That was our playground,” said Sammy.



**Figure 25: Toppled LORAN tower at Kittigazuit<sup>62</sup>**

<sup>61</sup> This may have been done in the late 1970s, when Skull Cliff was the site of a National Petroleum Reserve-Alaska clean up and 2,200 tons of debris were stockpiled there. In 1982, the debris was moved about one mile inland and buried, but efforts to relocate the landfill in 1989 were unsuccessful. Nevertheless, elevated levels of pesticides and other contaminants have been found in nearby surface water and soil (Alaska Department of Environmental Conservation 2010b).

<sup>62</sup> Archaeological team under the toppled 625-foot Yellow Beetle LORAN master tower in the Northwest Territories. Photo courtesy of <http://pwnhc.learnnet.nt.ca/research/archrep/archrep98/westarc.html>

In the mid-1950s, Sammy's father was sent to Leduc outside of Edmonton with approximately 50 other Inuvialuit to train for work on the DEW Line and returned to work at Tununuk (BAR-C I-site), Shingle Point (BAR-2), and Tuktoyaktuk (BAR-3). When their father worked at BAR-3 next to Tuktoyaktuk, Sammy and his brother used to haul their bikes through some nearby sand dunes to reach an enormous radar dish that had been knocked over and partly buried. It was a fifteen foot climb up into the dish, which was complicated by the fact that the boys hauled their bicycles up with them. However, once there they could ride around and around having great fun - until the time Sammy's brother was seriously injured<sup>63</sup> and the game was over – the DEW Line got rid of that particular playground by completely burying it in the sand.

Other equipment was less exciting but still fun. Mary Ann Warden pointed out a large pipe that drained from the Barter Island site which she and other children used to walk on and practice their balance. Richard Gordon remembered traveling the western Canadian coastline with his parents and stopping by the DEW Line sites to camp. "We as kids didn't know anything about DEW Line site, we just knew there was a camping site and there was a couple of buildings that we stayed in as a family and I remember during the day when we came out there was garbage and metal and stuff all over the place and there was ground squirrels at that time in those areas and we as kids were hunting the ground squirrels and running around all these things like a playground. Never was told it was dangerous, we were touching this and touching that and I guess our parents at the time were uneducated, didn't have the reading abilities if there were warning signs" (R. Gordon, July 24, 2008, Herschel Island, Yukon Territory).

Jimmy Olemaun was able to describe in precise detail the abandoned base he grew up playing in at Peard Bay (LIZ-3), including the line of strange machines, all the dials and wiring, the holding tanks, and the wringer washer (Olemaun, Aug. 31, 2000, Peard Bay). As children, Jimmy and his brothers and friends climbed into giant and pitch-

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<sup>63</sup> Sammie Lennie's little brother had an even scarier incident when the children found a deflated weather balloon on the tundra and decided to see whether it could make the smaller child fly. It did. At one point Sammie almost lost sight of his brother. He finally snagged him and then "really caught hell at home" for that adventure.

black holding tanks to have match fights<sup>64</sup>. One of the support structures at the base was a natural gas containment building that Jimmy said was always full of snowbirds and had a great view, like their own gazebo on the hill. However much fun he had in the gazebo and the module, Jimmy thinks they were too much of a risk and he is glad that everything is gone - except the tower.

The fact that DEW Line infrastructure was an accessible and irresistible playground to children along the Arctic Coast may be a significant factor that normalized the bases for the population. Military-themed toys are seen today as evidence of social militarization, and with radar base playgrounds two goals were accomplished in one. Many children knew every square inch of the sites, all of them seem to have played there, a huge amount of fear was dissolved in this way and good will was created.

### ***Lookouts and Landmarks***

Indeed, there is an almost unanimous consensus among informants that the people of the western Arctic coast *loved* their local towers, put them to great use for generations, and were sad and angry to see them go. In an environment where any vantage point gives the viewer an incredible vista, the towers were simply irresistible to children as well as adults and extraordinarily useful. “Like, I wonder what is up there, I wonder how far I can see. But we did climb. I climbed all the towers,” remembered Sammy Lennie (April 3, 2009, Fairbanks).

Mary Ann Warden remembers that even though she is afraid of heights, she and her playmates would climb all the way up the ladder to the top of the tower. “We just went up there and stood in the little thing and screamed (aaah!) ‘I’m being rayed!’” (Warden, May 28, 2009, Kaktovik).

James Tazruk of Point Lay grew up fifty miles from the Doppler tower at the old Icy Cape intermediate site (LIZ B), where Point Lay people hunt and camp. He was equally enthusiastic about the towers: “Yeah, we climb them all the time. Like, *all the time*. I’d throw my parka down. Every chance I’d get, I’d climb them. I don’t care how

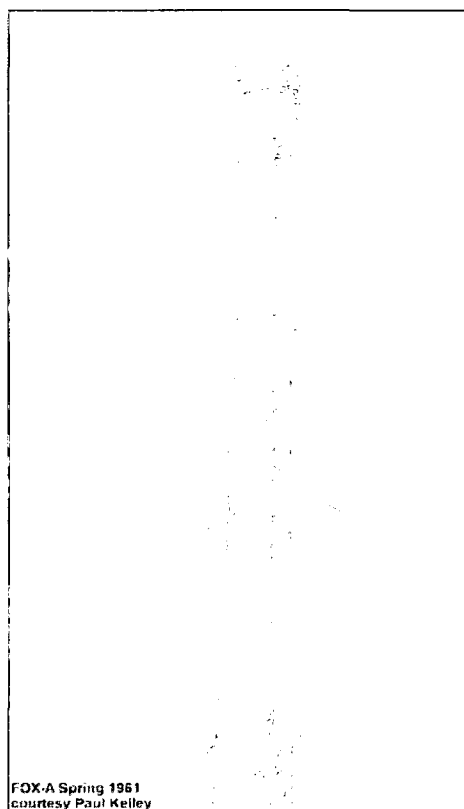
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<sup>64</sup> Lighting matches and throwing them at each other.

long it took. It was 205 steps. I can never forget that number, yup. My legs were like jello after” (Tazruk, Sep. 24, 2009, Point Lay).

James Olemaun’s mother cried the day the tower at Peard Bay was taken down. (The towers were toppled because, at 240 feet and with no light, they posed a hazard to airplanes.) Peard Bay is located fifty miles southwest of Barrow on the Chukchi Sea coast, formed by the prominent Franklin Point on the west side. The land at Tatchim Isua, at the far east side of the bay, rises relatively steeply to a small but prominent hill, and a gravel road runs from the beach to the hilltop where the Intermediate LIZ-C DEW Line Site was constructed. If one climbed only half way up to the top tower at Peard Bay, the runway lights from the village of Atqasuk were visible. In describing the tower, James Olemaun used the word ‘awesome’ numerous times and expressed feelings of loss. “You could just see for miles and miles. It was just awesome,” he recalled nostalgically (Olemaun, Aug. 31, 2000, Peard Bay). Olemaun and other young people would climb all the way to the top and then out to the radar dishes themselves to paint graffiti. Olemaun described in great detail the guy wire and cable system that the tower had, pointing out every spot on the ground where a cable had been fixed and describing the harrowing adventure of wrapping a loose cable around the tower as you climbed the first section, then jumping out and swinging around the tower on the cable: “It was awesome jumping off like that” (Olemaun, Aug. 31, 2000, Peard Bay). Alternately, you could climb to where the fixed cables were attached to the tower and slide down those, Tarzan style.

Although there were ladders on the inside of the towers, more adventurous people would also climb the tower on the exterior lattice (fig. 26). A famous Peard Bay tale was of a man who was climbing the exterior lattice and was near the top when he slipped and fell. About half way down, the man managed to grab at the lattice, which slowed his fall and broke his arm. When he hit the ground (tundra, thankfully) he bounced about five feet up in the air. As the story goes, the gentleman lived but was two inches shorter after his adventure on the LIZ-3 Doppler tower.



**Figure 26: Intermediate Site Doppler Tower<sup>65</sup>**

Industrial infrastructure in the Arctic has created new habitat for ravens and other fowl, particularly peregrine falcons. Both of these birds nested in the tower at Peard Bay, and Jimmy Olemaun remembered the ravens “weren’t so bad” but that the peregrines were extremely protective and would dive-bomb the tower when people were climbing it. Jimmy remembers that they would actually clip the tower, resulting in a nerve-rattling ‘ding!’ that could make the entire tower vibrate. Once, a peregrine falcon kept Jimmy captive in the tower for over an hour, trying to attack him whenever he began to descend the final flight of stairs and leave the protection of the latticed exterior (Olemaun, Aug. 31, 2000, Peard Bay).

Sammy recounted that people still climb the remaining towers, but it is strange now that the sites are automated and monitored remotely by video camera. A man who lost track of the group he was with while hunting caribou near Running River/Shingle

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<sup>65</sup> Image courtesy of Larry Wilson’s DEW Line website <http://www.lswilson.ca/dewline.htm>



Point went up to the site and climbed the tower to scout for them. A loud official voice came over a microphone: “Please get off the tower. I am watching you from Gander, Newfoundland.” Sammy was impressed both at how much citizens are being watched and the fact that they are being watched from the other side of Canada.

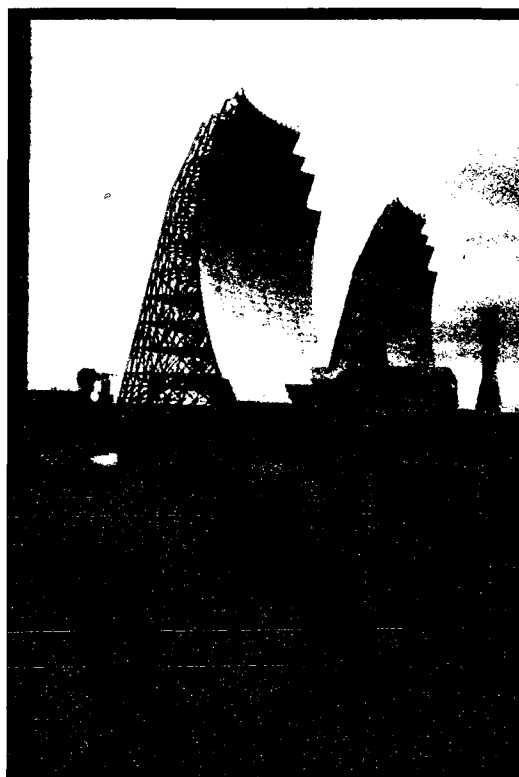
DEW Liner Hal Phillips recalls one time in the winter of 1956 when he almost got lost in dark, wet, cold and blowing weather just making the crossing from the village of Point Lay back to the DEW Line site. Luckily Hal was with his co-worker, Buck, who had a lot more experience traveling on the Arctic coast. As soon as the pair realized that they could not see anything or make out their direction, they stopped and sat back to back for what seemed like an entire day before one of them saw the red tower and they took off running towards it (Phillips, Dec. 13, 2006, Texas City, Texas).

Although towers are not adored for their landmark function as much as they were for their lookout function, this aspect of DEW Line infrastructure has had a significant and deeply appreciated impact on travel in the Arctic. Richard Gordon confirmed that everybody uses the DEW Line sites when they travel – in the wintertime people would be able to see the light and in the summer the white radome would contrast with the green landscape. “[I]t’s used as a safe haven – you know there was humans there. Nowadays it is unmanned but you are still going to have contact with the outside world” (R. Gordon, July 24, 2008, Herschel Island, Yukon Territory). Gordon described the DEW Line as “there for those things - it is one of those things you adapt to it and you use it for some way as part of survival... We still use them as part of our travel, we’ll use them as reference, they are even in our GPS at least by people who are traveling along the coast” (July 24, 2008, Herschel Island, Yukon Territory).

In Point Lay, residents seem pleased that the entire site is gone except for the hangar, two warehouses, and two smaller buildings that have been moved out of town near the gravel pile. The hangar, with a bright red light that is a valued landmark, belongs to the village corporation and is used by the Department of Public Works to store equipment. James Tazruk is glad that “the landmark is still there. The hangar. They kept

that up so that when we are out traveling winter time or summer, it's foggy, we can see that light, that's home" (Sep. 24, 2009, Point Lay). According to Tazruk, the hangar and its red light was always a better landmark than the golf ball.

In addition to its other features as the largest DEW Line station in the western sector, Barter Island's site was linked with a White Alice tropospheric telecommunication system (fig. 27). The 120-foot high parabolic White Alice towers constituted the most visible features on Barter Island. Daniel Akootchook remembered how convenient and reassuring the towers were when he used to travel and hunt 60 miles away across the coastal plain in the Brooks Range, from where the towers were visible. "They should've just kept them there like they were. Because these are the ones that we could see with our own eyes from the mountains. There's Barter Island, there we go" (D. Akootchook, May 5, 2009).



**Figure 27: Barter Island White Alice towers<sup>66</sup>**

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<sup>66</sup> Photo courtesy of Gary Kofinas.

Nora Jane Burns was at work one day in the early 1990s when she and everyone else in Kaktovik heard a loud boom that seemed to shake the entire island. The community got startled at hearing this, she said, “and then they saw these rabbit ears go down” (Burns, July 31, 2008, Kaktovik).

According to Walt Audi, the demolition of the White Alice towers was a fiasco. “That was a joke. Blowing the towers over. They brought in all these explosives guys, did all the fancy stuff, then ‘BOOM’ and the tower went ‘eek’ (tilted over a little bit) and stopped” (Audi, Aug. 8, 2008, Kaktovik). After this first effort, the demolition crew used caterpillars and cables to pull the towers over, but since everything was still connected the structure was under great stress. As soon as the demolition crew started cutting, huge beams of steel sprang out, nearly taking out the workers. Walt reports that the elite demo team that had come up for the job went home, and eventually the regular clean up contractors designed a very long “stinger” with a cutting device on the end, so they could stand at a safe distance from the structure and cut it up.

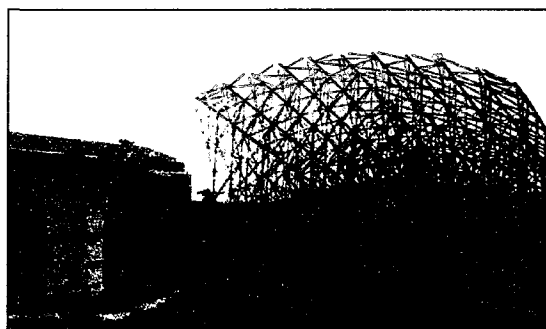
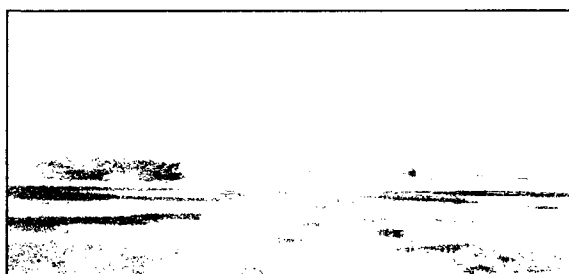
It seems that disappointment at losing the towers was significantly exacerbated by the fact that the community had not been informed or consulted beforehand. Walt Audi did not know why the community wasn’t told, but suspects that the Air Force was attempting to avoid any conflict or protest. (In addition to the residents’ concerns, it is possible that if peregrine falcons were nesting in the towers, the Air Force would have had complications.) As Nora Jane explained, “the community liked them ears, they got used to them after how many years, them big ears, because when they go out whaling, when they lose their bearings they’d see these two rabbit ears...and they’d come home safely. [] Especially when it’s whiteout and you don’t have any bearings which way to go, you’d look for the two rabbit ears. At least they were good for something!” (Burns, July 31, 2008, Kaktovik).

Alice Agiak, the only informant who claimed that the community *was* informed about the tower demolition (“oh, that’s their way of saying. Other people got different

opinions,”) was nonetheless nostalgic about the White Alice towers: “The only thing that we kind of miss was them ears” (Agiak, May 31, 2009, Kaktovik).

Robert Thompson was the only person interviewed who did not think the towers made good landmarks. This is partly due to his fear that any DEW Line infrastructure will be preserved, but also due to the fact that he is a renowned Arctic wilderness guide. He was a bit insulted at the suggestion: “No! We got around before we had those things and now we got GPS. I could get around without having to see the DEW Line stuff” (Thompson, May 5, 2009, Kaktovik). Robert does acknowledge that they have been used. “I was actually happy to see that big ugly old tropo tower one time when we were coming along the coast in the fog and a blizzard: ‘Wow, we’re home.’ But I would have got here without it.” The line’s service as an aid to navigation should be considered “a minor plus” (Thompson, May 5, 2009, Kaktovik).

According to Nora Jane Burns and others, the DEW Line officials said they were going to clean up the downed White Alice towers the following summer. However, it took them about a decade to do it— long enough for the bizarre mounds of twisted metal to become part of the island’s habitat in their own right (Fig. 28). Especially for younger people, the collapsed towers entered part of a normalized background. The entire area was officially off limits. Warning signs, alerting people to the presence of PCBs and other contaminants, surrounded it. However, when the crews knocked the enormous concave towers down, they created two secluded and sheltered spaces underneath them that were immediately co-opted by local teenagers and young adults as a great place to hide out, do drugs, and have sex.



**Figure 28: Toppled White Alice towers at Barter Island**

### *Travel*

Though it is rarely mentioned in post-DEW Line Arctic adventure and exploration journals, the fact that people had access to company and all the comforts of an industrial outpost at regular intervals along the coast created an entirely different landscape and logistical character for arctic voyages. The bases constituted a enormous benefit, Sammy Lennie recalled, for a lot of the explorers that were trying to make the Northwest Passage. When such explorers would arrive in Tuk and announce that they had done it, Sammy says that the people always used to tell them “oh, but you had the DEW Line. You can stop and have a shower.” Travelers were not only able to call home and tell their families where they were, but they could refuel if they were using gas or oil. Local people would compare all these luxuries this to the long-distance traveling in stark conditions they had done and conclude that traveling with the assistance of the DEW Line was not really exploring. Sammy contended: “Being an explorer – you’d have to travel the whole distance and people wonder...whether you are alive – that’s exploring” (Lennie, April 3, 2009, Fairbanks).

During fieldwork, little evidence was found to support the idea that the DEW Line increased travel between villages before the advent of commercial air service. Certainly the villages with radar stations got commercial air service earlier than communities that did not have bases, but, at least in Alaska, having the air strips and supply planes constantly traveling along the coast did not mean that local populations were able to easily travel between communities. One person said that people had already traveled widely and gotten “mixed up” through reindeer herding.

Pilot Walt Audi explained that no one just jumped on a plane back then. All potential passengers had to have security clearance and it had to be run through Federal Electric’s headquarters in Paramus, New Jersey. Walt did not think that Paramus would ever refuse anybody’s request, but it was a time-consuming requirement. In fact, one of the reasons that Walt Audi is regionally famous and beloved is because once he had his own plane, *he* would fly people out if they had to go to the hospital or had some kind of emergency.

### ***Dumpster Fresh Building Material***

The planes may not have flown people out of the village, but they certainly flew cargo in to the bases. Everywhere that DEW Line construction touched the shore, a supply of dunnage, packing crates, and other materials appeared. Like many people who have lived next to industrial construction sites, the Kaktovikmiut and other Iñuit along the Arctic coast recycled material and debris from the sites, and many built their first wood frame homes with it.

Mary Ann Warden (2009) recalls the arrival of the first building material: “the LSTs, and [I] remember this clearly, they would throw out planks of wood and I remember my uncles and them getting all the planks of wood and bringing them in because they could use them to build houses.” Considering what percentage of the cabins along the western Arctic coast had been constructed used DEW Line scrap, Richard Gordon of Herschel Island and Inuvik concluded, “[y]ou could say all of them” (July 24, 2008, Herschel Island, Yukon Territory). Anytime people were walking around and saw plywood, he said, they would definitely grab it for floors or walls. Anything resembling boards and planks were, naturally, rare and valuable. Alice Agiak of Kaktovik remarked sardonically: “Everything come out from the DEW Line. Where else would it come from? We live in the island” (Agiak, May 31, 2009, Kaktovik).

Walt Audi was surprised and amused at the terminology for what he considered scrap lumber at best: “Well, I don’t know if you would call it building material. I could take you for a tour and show you what people used to live in. God! It’s amazing.” At the same time, Audi feels strongly that the DEW Line caused an increase in the local standard of living: “They would have still been living in the ground if it wasn’t for the DEW Line. Well, living in the ground meaning driftwood logs with sod on the outside” (Audi, Aug. 8, 2008, Kaktovik).

In 1957, anthropologist Jack Ferguson noted that in Canada, the Iñuit camps that were cobbled together around DEW Line sites contrasted sharply with those constructed for the non-Native workers, who were snugly housed in heated and specially insulated modular buildings. In Alaska, there was no regular policy to construct special housing for

Iñuit employees. Sometimes there was fuel oil for the Iñuit houses and white workers often showed the Iñuit how to attach regulators to oil-drum stoves.

Kaktovik's first school was constructed by Nora Jane Burn's father, Harold Kaveolook, after whom the current school is named. Kaveolook built the schoolhouse, which is still standing, out of DEW Line packing crates. Later, the community used the armory for a school before a larger one was built.

In addition to buildings built from scrap lumber, five or six Quonset huts, originally set up as a temporary camp for construction crews, were incorporated into the village of Kaktovik after the DEW Line was complete. Several of the huts are still in town and a few are in use as living quarters. Kaktovik people had started using one of the huts as their own movie house while still in the old (second) village, and then they brought it over to the current site and used it as a community center for services, dances, and feasts.

Carla Sims Kayotuk thinks that the store she inherited from her father is made of DEW Line material. When she was young, she and her family lived in a little shack in town and then, with seven members including a cousin, they moved over to a Quonset hut which was later made into a clinic. Carla recalled that larger families also lived in Quonset huts. Her family then moved into their store before they finally got borough housing in the mid-1970s.

The way Robert Thompson of Kaktovik saw it, "So they moved from sod houses into sub-standard frame houses. I don't know if that was a plus. They were very hard to heat. In that era, 3.5 inches of insulation was a lot of insulation" (May 5, 2009, Kaktovik). Ben Linn realized this as well when he helped tear apart his family's old house to renovate it. "I wonder why I had to chop so much wood. Look inside the walls, there we had cardboard insulation" (Linn, May 31, 2009, Kaktovik). In addition to being difficult to heat, the structures were particularly flammable. During several discussions over housing, several interviewees mentioned the loss of houses and lives in structure fires.

Nellie Arey, whose father worked at the Shingle Point site, recalled that the DEW Liners asked the people at the Shingle Point camp if they needed left over materials. Most of the cabins built during that era are built from DEW Line material, and since then people have used the rich supply of local driftwood and/or hauled material from town if they want to build. Nellie Arey's family cabin at Shingle Point was built out of DEW Line material, but Nellie was reiterated that just the outside of the house had DEW material, not the inside. This qualifier was almost certainly made because almost everyone along the coast is aware that much of the material recycled from the DEW Sites was produced before there were any regulations on lead paint, PCBs, asbestos, and other hazardous material.

Numerous individuals on both sides of the border recounted the same contaminated cabin story when the subject of hazardous building materials came up. During fieldwork, we had set up camp at Shingle Point next to an older and unused cabin. That cabin was likely made out of DEW Line material, but the story concerned the couple who had owned it. The couple had lived for several years in another cabin at Stokes Point (BAR-B Intermediate Site). Both people had passed away from different types of cancer while they were still fairly young. Furthermore, the material that their Stokes Point house had been built with had subsequently tested positive for contaminants. That is precisely the amount of detail, no more, no less, provided by every person who relayed this story. After his wife Lillian recounted this story in Kaktovik, elder Daniel Akootchook said, "No wonder we've been told not to roll around in the DEW Line building" (May 5, 2009).

Shortly after the intermediate sites were abandoned in 1963, George Agnasagga decided to implement a minor recycling operation. He was trapping with his dog team along the coast between Point Lay and Cape Lisburne and he liberated as many chairs and beds as he could carry on his sled from the obsolete Cape Beaufort (LIZ-A) site. He hauled the furniture to Wainwright and distributed it to friends and family, but soon heard from the station chief at the Wainwright site that he should return the 'stolen' property before the wrong people found out about it and got him in trouble. George loaded his sled



back up and undertook the minimum four-day trip by dog team from Wainwright to Cape Beaufort, where he put all the furniture back into the abandoned module that was then ignored for decades.

Isaac Panik recounted a somewhat similar story that occurred decades later when the Auxiliary site at Wainwright was abandoned in the 1990s. A few people went out to the site and took some beds that were still in good shape. Many people then got rid of their own beds, which were not in as good condition. Afterwards, officials contacted some of the people to let them know that this was a crime that they had committed, and that they had to return the beds to the site unless they wanted to face prosecution. The beds were returned, but since many people had already gotten rid of their own beds, they were without any bed at all for an extended period of time before they could arrange the logistics and money necessary to order new ones and have them delivered.

By contrast, when the Point Lay DEW Line site was closing down, community members were allowed to come and take anything they wanted. James Tazruk scored the actual bar, including the mirrored glass behind it. “Yeah, actually, they did give away all that stuff to the village. Pots, pans, beds, you name it. [] If you can lift it you can take it” (Sep. 24, 2009, Point Lay).

In Wainwright, the beds were returned to the empty DEW Line site, which has been basically unattended and rotting since it closed in 1995. The locks on the doors were long ago busted off and the eerie, dark, contaminated site is completely open for anybody to pilfer through, recreate in, and enjoy a measure of privacy that is often difficult to find in the crowded and close-knit community of Wainwright. Ignoring the stale warnings and restrictions, the Wainwright Search and Rescue Base has benefited since friends of the organization liberated the old DEW Line pool table one winter and set it up at the base in town.

### ***Drums***

Other than building material, one of the smallest and most commonplace objects brought up by the DEW Line has had a significant impact on people’s lives: the ubiquitous 55-gallon barrel. Abandoned, and usually empty, 55-gallon drums dot the

entire landscape of the Arctic from oil exploration, military projects, and any number of other modern activities. Every DEW Line site has or has had thousands of drums that contained fuel, PCBs, or heavy metals. The drums, which eventually rust and release any remaining contents, have become one of the most pervasive and symbolic - yet practical - results of military activity in the region. Indeed, it is difficult to imagine life on the North Slope during the past 60 years without the '*taigruaq*' (Iñupiaq for drum).<sup>67</sup>

Over 818,000 fifty-five-gallon drums were brought to the Arctic just for initial construction of the Line. Once the DEW Line sites were complete, bulk fuel was stored in large fuel tanks. Small Intermediate sites usually had two 10,000-gallon tanks near the site and fuel would be pumped into these from two 25,000 gallon storage tanks near the beach. Before the tanks were in place and supplied, all POL (petroleum, oil, and lubricants) were shipped in drums. Other fluids were supplied by 55-gallon drum for the duration of the I sites, including all aviation gas and MoGas which was kept in and pumped from 55-gallon drums at I sites during their use.

The Arctic coast had previously been littered with drums due to military oil exploration in PET 4. Unique legacies of that exploration include not only the piles of drums along the trails, but – because the heavy equipment used scraped the tundra down to the permafrost – ice highways that are ideal for snow machining with the right freeze up conditions. Iñupiaq wilderness guide Robert Thompson, who has traveled these trails extensively over the whole Arctic coastal plain, confirms that the entire Arctic coast is scattered with drums, usually in piles.<sup>68</sup> The coast itself was littered with them due both to on-shore dumps and currents and waves returning the drums that had been hauled off the ice edge by the cat trains. The spread of the drums is aided by wind and water along the coast, but also by scientific and military activity even further at sea. A scientist who worked for years at the research base on ice island T3 for several years calculated that by

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<sup>67</sup> "The route was littered with rusted fuel drums, which were left where they were drained. Steel shards of progress which would be preserved for centuries, their cryptic markings: 55 GAL, DIESEL, AV/GAS, FSN-6565-473-SA30, **the subjects for archeological and sociological research for pedantic dissertations for eons,**" (Griffin 1980: 69) (emphasis added).

<sup>68</sup> "He stared down at the trail of litter. Fuel drums were strewn along the shoreline as if teen-age giants had been racing by, chug-a-lugging beer and chucking the cans out a car window," (Griffin 1980: 70).

1968, after ten years of operation, the station there had produced 80,000 empty drums that were abandoned along with the island when it started to break up. Tens of thousands of drums have also been abandoned in villages and former military sites throughout the Russian Arctic. Once introduced, the drums were quickly put to use as honey buckets in most communities and for many years people employed a modest version of the cat train method to dispose of these.

Although not in wide use on the North Slope (except among wildcatters), one Alaskan slang term for 55-gallon barrels is 'tundra daisy.' As far as research can determine, this term has probably been in use by roughnecks for many years but became more popular after a great flood of the Yukon River devastated the village of Galena in 1971. Galena's defense site line had been created as a supply point along the ALSIB (lend-lease) route during World War II and evolved into a forward-operating Air Force base during the Cold War. If the DEW Line perceived threats, jets would be scrambled to meet them from Air Force bases in Galena, Eielson (Fairbanks), and King Salmon. As a remote base, Galena amassed an enormous amount of military waste, including tens of thousands of barrels. The great flood of '71, after inundating the entire town and surrounding area, spread thousands of barrels downstream for miles and over a wide swath of tundra and the name 'tundra daisy' was born.

Although the possible uses for drums is endless, perhaps the most important use emerged as people moved from semi-subterranean sod homes into frame houses that were much harder to heat. Barrels were used as wood stoves and drip oil stoves that they could use to burn diesel or waste oil for heat. Drums are certainly used as fuel containers, but they have also been employed for purposes as varied as lining the tunnels into ice cellars; barbeques; burn barrels; reinforcements for runways, roads, and beaches; housing foundations; water or food containers; rain water collectors; ammo/firearm storage; scrap sheet metal; floats for rafts and docks; dog food cookers; steamers for bending wood; runway markers; wind indicators; musical instruments; culverts; and to mark off radome cables near roads and runways so that planes and vehicles would avoid them.

George Agnasagga, who was born in Point Lay and spent a great deal of his youth trapping by dog team, used drums that he and his trapping partners would find along the trails to cook dog food. He had a galvanized tub for cooking the food and would use a 55-gallon drum that “you could find anywhere.” He would cut the top out with an axe, punch multiple holes in the bottom and get a good fire going in it. Next he would set the tub in the top, add water or snow and get it “super hot” before throwing in lots of seal oil, seal meat, and sometimes caribou. “It was *never* a problem finding a 55-gallon drum - they were left along the trap lines” (Agnasagga, Sep. 13, 2009, Wainwright). George also said that before the USGS and PET 4 era and all the associated drums, people did not have such large dog teams.

As the base for PET 4 exploration, the site of NARL and a hub for DEW Line construction, Barrow has dealt with several large mountains of barrels including ones at the end of the lagoon. Like other communities, Barrow used the drums for years as honey buckets which, once full, would be hauled out on the ice and left to sink come break up. One particularly memorable storm in Barrow brought the drums and their contents back to shore where it contaminated the houses nearest the beach. In Kaktovik, Nora Jane Burns remembers helping her father with the same system: “The community would select what area to bring your thing and drop them off all at once. And then it would be as far as you can go and the deepest where that thing will sink to the bottom” (Burns, July 31, 2008, Kaktovik).

George Agnasagga recalled that drums were often found full or partly full of fuel, and that the reason many of them have holes in the side is because when people came across them in the winter and could not pull them out of the tundra, they punched holes in them and pumped the fuel out. During DEW Line construction, a few locations were used as staging areas or supply caches that were not actually radar sites. One of these sites is Brownlow Point, on the western side of Camden Bay (not to be confused with the Intermediate site POW D at the bottom of the bay which is known as Collinson Point or Camden Bay or Kongegivik or, sometimes, Brownlow). According to Kaktovik resident Ben Linn, whose father was a long-time DEW Line employee, DEW Line construction

crews constructed one small building and cached an enormous supply of fuel at Brownlow. A gentleman who ran a barge business between Prudhoe Bay and Canada was aware of the cache's location, and he got free diesel from there for years (Linn, May 31, 2009, Kaktovik). Other common drum stories resemble those told by Isaac Panik of Wainwright, concerning rumors of the secretive storage or burial of drums full of "highly classified" toxic substances<sup>69</sup> (Panik, Sep. 13, 2009, Wainwright).

Harry Merriman, a white DEW Liner from Fairbanks, remembered his job in the early 1960s reinforcing Barter Island's spit runway with barrels full of gravel. "We ran cables through them and then we filled them up. The first thing we had to do with these old drums was take a cutting torch and cut the tops off and that was a little tricky because you never knew for sure what they held and what fumes might be in there"<sup>70</sup> (Merriman, March 3, 2009, Fairbanks). Looking at a picture of the drums along the airstrip, elder Lillian Akootchok said, "Yeah, that's what we have, they always wear out. They make the water taste really bad. [] Smell bad, you know. I don't know why they don't use no cement. That would last a long time" (May 5, 2009, Kaktovik).

Barter Island's runway, constructed on a gravel spit subject to erosion, has provided periodic small employment booms for generations of Kaktovikmiut. Ben Linn worked on it once the reinforcement technique had been upgraded: he covered some of the old barrels with newer plastic containers, filled them with gravel, sank rebar through them with a jackhammer and anchored them down.

With the largest DEW Line site in the western sector and the hub for DEW activities, it is no surprise that Kaktovik has a close relationship with drums. (Having picked fish out of gill nets in many locations around the state and the Arctic, Kaktovik was the only place where I have wrestled with rusty pieces of drum tangled in the nets). The environment surrounding Kaktovik is literally inundated with rusty metal.

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<sup>69</sup> "Mr Nartok recalls information passed on to him by a former employee who has since deceased, that the USAF had asked him to bury approximately 200 full drums of waster petroleum product near the airstrip. In response to this concern, samples were collected by ESG in suspect areas" (Cote et al 2005).

<sup>70</sup> Mary Ann Warden remembered her uncles working on the same job. Her uncle George said, "I'm sorry" every time he filled a barrel: "I'm sorry, I'm sorry." Finally, her uncle Daniel asked, "What in the world are you sorry about?" and George reminded him that *sauri* is the Inupiaq word for filling something up. "I'm sauri."

Manning Point is a small peninsula next to Barter Island which many people know only as Drum Island. Before it was cleaned up, the stack of over 20,000 drums on the point had been there as long as most people could remember. “Tons and tons of drums. That’s where people used to get some drums if they needed drums for fuel, or if they needed to clean it out and use it for water, holding tank and stuff,” remembered Nora Jane (Burns, July 31, 2008, Kaktovik). Another pile of drums was also located on Barter Island itself, on the southern side near the current dump. “Just huge, huge, huge. I don’t think it was quite as many as Drum Island but it was close,” recalled Walt Audi (Aug. 8, 2008, Kaktovik). Nora Jane remembers that she used to go climb around on all the drums just to go look, but walking around she used to see old oil and other substances around them. “I used to ask, why they put them all there? [T]hey never really give me a good answer” (Burns, July 31, 2008, Kaktovik).

When Walt Audi became disoriented once while riding his snowmachine back to the island in a whiteout, he happened to come across the huge pile of drums. He assumed that he was more disoriented than he had thought and had somehow wound up on Manning Point. Walt took the heavy tarp he carried with him on his snowmachine, tucked it over a barrel and crawled underneath it to wait out the storm. Several hours later, when he was finally forced to crawl out and urinate, he saw the DEW Line light, realized he was on Barter Island’s mountain of barrels, and was able to make it back to town just as a search crew was leaving to look for him. Two central DEW Line legacies, then, helped famous DEW Line rigger and bush pilot Walt Audi save himself that night.

In the 1960s, Kaktovik had a Galena-like experience when an especially strong storm blew thousands of the drums on Manning Point and Barter Island away, scattering them around the surrounding countryside. While the remaining drums on Drum and Barter Islands were cleaned up in the nineties, the scattered drums were not and a third large barrel dump at the mouth of the nearby Jago River also remains.

The inundation of the Arctic slope with drums creates a sense of ownership that exists alongside a denial of association. For example, James Tazruk was somewhat indignant and about the state of Point Lay’s drum collection: “Our drums are so old you

can just poke a hole in them with your finger” (Sep. 24, 2009, Point Lay). When Nellie Arey at Shingle Point, Yukon described obtaining building material from the DEW line, she explained that the crews would set aside whatever they had for the people. This did not include barrels: “No! Not barrels, not that,” as if the idea that barrels would be valuable was silly (Arey, July 18, 2008, Running River, Yukon Territory).

Thus, despite their many uses, the large quantity and poor quality of drums ensure that they are seen as trash. Also because of their ubiquitous nature, it is difficult to assign responsibility for them. Although ownership is obvious when piles are adjacent to DEW Line sites, many barrels are not. People in Kaktovik are still incredulous about one clean up project that was stymied because the officials were not able to determine that the drums belonged to the DEW Line and not to the community. Responses to this included “we have never made drums, we are not the one who brought these millions of drums here, drums are foreign.” Isaac Akootchook said “they Air Force bring it in to places. All the coast and those Air Force stations. DEW Line, same thing” (May 31, 2009, Kaktovik).

In Canada’s western Arctic, as Richard Gordon remembers, residents had similar drum clean up issues. They had to work a long time to get the funds to do a shore line clean up, “because there was so much [] bureaucracy, politics mixed into it, because they knew it was American DEW Line sites but anything out of their jurisdiction was Canadian – whatever, some big money talkers as to who was going to pay for that clean up” (R. Gordon, July 24, 2008, Herschel Island, Yukon Territory). Eventually the project was funded and people traveling along the coast would carefully collect each drum that they saw once they made sure it was empty.

Bruce Iglangasak, born in Canada to Kaktovikmiut parents, has lived in both countries and travels back and forth between them regularly. He worked on a ship doing clean up of DEW sites in the western Canadian Arctic for two years and recalled hauling approximately a dozen barges of mainly drums out of them. “I guess for a number of years they had locals from all the communities go and tie up all these drums together and put them on pallets. We took a lot of drums out” (Iglangasak, May 24, 2009, Kaktovik).

Bruce recalls that only the drums were taken out and shipped south – all other equipment, debris, and buildings were buried.

From the fieldwork conducted for this project, it appeared as though the drum clean up in Canada's western Arctic was very successful since no drums were seen in that area. This was in stark contrast to eastern Arctic Alaska, and in particular the coastline around Barter Island and other sites in the Arctic National Wildlife Refuge, where limited drum clean up projects, but no comprehensive clean up of the coast, have been undertaken.

In Point Lay, George's brother Amos Agnasagga emerged as a strong local leader who fought against what he perceived to be reckless industrialization of his homeland. The Point Lay DEW Line station was located on the tip of the mainland when the original village was still located across the Kasegaluk Lagoon on a prominent section of barrier island (fig. 29).

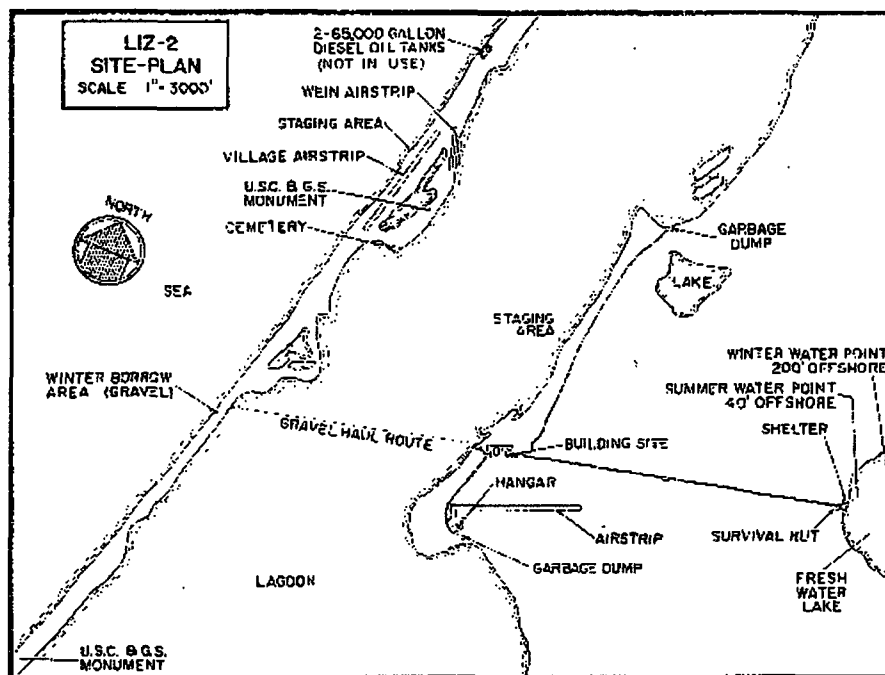


Figure 29: LIZ-2 (Point Lay) Site Plan<sup>71</sup>

<sup>71</sup> The new village site is located between the two DEW Line dumps shown along the coast on the mainland.



After construction and years of DEW Line operation, the entire lagoon between village and radar site was filled with drums. Amos instigated a massive clean up and worked to have the lagoon restored so that it could be used again since it is traditionally where the residents of Kali, which is probably the last remaining village of the Kuukpaagruk people, boat and set their fishing nets.

At Wainwright, the DEW Line site is several miles from the town and from its main fuel tanks, therefore a long (and apparently very leak-prone) pipeline carried fuel some 6 miles from the tanks on the coast, above and past the village, to the radar site on the inland lagoon. Several years ago, a man in his forties (who has since died of cancer) related that when they worked on the drum clean up along the pipeline, the community learned the extent of petroleum contamination in the ground around town (he dramatically stated that the entire village was flammable). Betty Tulugak of Wainwright, born in 1958, also worked on the drum clean up run by Olgunik Environmental Services in that community. Alice obtained her 40-hour Hazwopper training and said that about 12 people worked on the pipeline drum clean up for about a month. The drums, she thought, had been there before she was born. Barrels that were not empty were put aside. As far as Alice can remember, the pipeline drum clean up is the only clean up that has ever been done on the Wainwright DEW Line site.<sup>72</sup>

Carla Sims Kayotuk of Kaktovik recounts that she never had any health problems until the summer of 1997 when she worked at Manning Point (Drum Island) cleaning up drums. The job was great in that she met her husband on it, but by the time the project was done in August, she had strep throat for the first time and subsequently began to suffer from numerous health problems. Koyotuk and the other workers were crushing the drums but were not wearing masks and were not required to wear them. "So we breathed in a lot of the debris and stuff that was coming in from the drums and the crushed metal and stuff. There's no proof, but I was healthy until that year" (Kayotuk, May 29, 2009,

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<sup>72</sup> Since the 2009 fieldwork season, a clean up project has been instigated.

Kaktovik). Since then, Carla has suffered from non-alcoholic cirrhosis of the liver; ulcerative colitis; a form of arthritis that is related to Lupus; and benign ovarian cysts. The drums were not all empty, and Carla recalls that a woman who was working for another company that was testing the drums was “furious” at the people in charge because other employees (including Carla’s husband) were cutting the drums before they were tested to see if they were safe. Carla contended that this woman filed a complaint and was fired. “She would complain all the time: ‘You can’t be having these guys do this! You need to make sure they are wearing their masks!’ They wouldn’t listen to her and she never got a job doing the rest of the clean up stuff” (Kayotuk, May 29, 2009, Kaktovik). The job to clean up the pile of drums on Barter Island the following summer was going to be at least as big, but Carla refused to have anything more to do with such projects after her experience on Drum Island. “[A]fter the way we were treated and everything, there was no way I was going to work for them again” (Kayotuk, May 29, 2009, Kaktovik). Carla also pointed out that some drums had ended up in the island’s (and the DEW Line’s) precious freshwater lake but had finally been cleaned up. This was similar to other sites, including Peard Bay where dozens of drums are still in the freshwater lake.

Elder Lillian Akootchook thought that, other than the pile of drums near the mouth of the Jago River, the military had done a good job of cleaning up the island. Alice Agiak confirmed that although there are still drums around (“here and there they come out”) there are less now (May 5, 2009). Considering whether the drums had ever interfered with her fishing or other subsistence activities, Alice said “Never thought about empty, rusty drums. We just look at it. Can’t do nothing about it” (Agiak, May 31, 2009, Kaktovik).

***“Mother Nature cleaned it for them” ~ Gravel, Erosion, DEW Line Dumps & Contamination***

One might assume that the cat train method of garbage disposal described by Richard Gordon in Canada’s western Arctic was a thing of the distant past. However, environmental consultants in Canada who have improved the risk assessments for DEW

Line sites by including Inuit traditional environmental knowledge have learned that similar methods of waste disposal (including the dumping of trucks and radio towers) were commonplace at other sites even up to the time of site deactivation in the early 1990s (Cote et al. 2005).<sup>73</sup>

The original layout plans for most sites indicate beach areas to be used for garbage dumps, and bulldozing garbage and equipment into the ocean at the beach dumps was standard operating procedure at the sites for decades. The Auxiliary and Main sites generated and dumped garbage without any regulations from around 1954 until the early 1970s. The practice of bulldozing garbage into the ocean declined in the 1970s as environmental laws came into existence, and the terrestrial dumps grew. They continued to generate and dispose of garbage locally under some restrictions throughout the deactivation of most DEW Line sites (around 1994) and the throughout the construction of the North Warning System radar facilities at many of the same locations. However, erosion has been an issue at nearly every site and, in certain cases, almost the entire dump is in the water. Clean up projects did not begin until the late 1990s. Many of the dumps were first reported to be eroding in the 1980s. Therefore, despite the presence of impressive dumps at several DEW Line sites, I believe that the majority of DEW Line garbage is already in the ocean, and that the dumps or remaining sections of dumps that are still visible are akin to the tips of icebergs.

The theory that most of the garbage is in the Arctic Ocean does not imply that there is not significant pollution of the land around the sites. A brief official description of one site is very similar to the clean up assessments for any of them: “The extend of contamination is unknown. Potential environmental concerns include abandoned drums, solid waste problems, fuel-related contamination, and polychlorinated biphenyls. Potential pathways of concern include migration to surface water, direct contact to

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<sup>73</sup> “Mr. Kayaitok reported that it was common during operations and closure of the CAM-5 site that materials such as trucks, radio towers and other discarded items be deposited on the ice of Bagnell Lake and allowed to sink to the bottom of the lake” (Cote et al 2005: 7). CAM-5 was an Auxiliary site that was deactivated in 1992.

contaminated soil or sediment, and subsistence pathways” (Alaska Department of Environmental Conservation 2010a).

A Canadian study has estimated that DEW Line pollution constitutes five percent of the total Arctic contamination burden (Ducharme 2002). This is a significant amount, but it also has a disproportionate impact because DEW Line contamination is concentrated into areas where people are far more likely to live and hunt. The Arctic’s indigenous people inhabit a small percentage of the Arctic’s overall landmass, and most of their small, scattered communities overlap with contaminated DEW and other military sites.

### **Gravel**

Another seemingly inconspicuous yet critical element of DEW Line infrastructure that played a significant role in reshaping sections of the Arctic coastline was the use of gravel. Gravel was critical for DEW Line construction and throughout the life of the stations. 9,600,000 cubic yards of gravel were initially flown in to create 625 acres of airstrips (over 152,000 cubic yards per sites). Local gravel collection – often on a monumental scale – was subsequently undertaken to maintain the airstrips and to build and maintain roads and building pads. Regular gravel extraction continued throughout the life of the sites, and, some fifty years later, massive amounts of gravel are once again being dredged up to cover the dumps and other debris at those sites undergoing clean up. Between construction, maintenance, and clean up, the movement of gravel on the coast amounts to significant terraforming of the coastal terrain. Carla Sims Kayotuk thinks it is particularly ironic that the DEW Line used Barter Island’s gravel for all these purposes while locals were always told that they could not touch the gravel: they were not allowed to use it in their own yards or driveways because the island’s gravel was DEW Line and Air Force property.

Gravel removal for use in roads and airstrips has had several serious and unfortunate consequences at many of the DEW Line sites. In addition to destroying some traditionally used beaches, gravel removal has directly contributed to the biggest challenge facing many communities (and many DEW Line sites) in the Arctic today:

erosion. Erosion along the Arctic coast is nothing new, and certainly there are sections of coast like the Shingle Point spit where people are witnessing beach growth. However, most communities in the Arctic are situated on strategic points of land to allow for better hunting opportunities, among other reasons, and these areas are particularly susceptible to localized impacts of gravel removal and erosion. As mentioned, strategic points along the coast were also much more desirable for radar stations, which is one of several reasons that villages are often co-located with radar sites.

Erosion is threatening communities themselves and, in many places, DEW Line dumps and infrastructure have been eroding for decades, releasing garbage and contaminants into rivers, lagoons, and directly into the ocean. Climate change in recent years has resulted in much longer periods when there is no shore ice protecting the coastline from storm surges and crashing waves. Richard Gordon summarized the situation faced by Arctic residents:

*“Over the years now that the world is changing with this global warming and the erosions that’s happening along the shoreline, all the contaminants that were buried over when the DEW line sites were started – we’re starting to see all those things come up again and it worries us because now we are educated about what these things held that were unknown in the past”* (R. Gordon, July 24, 2008, Herschel Island, Yukon Territory).

The case of Brownlow Point illustrates the erosion problems. Mentioned above for its plentiful fuel barrel cache, Brownlow Point, on the west side of Camden Bay, was an official DEW Line staging area. It was not a radar site and it had only one small building and the large supply of barrels. (Brownlow, originally known as Kongegivik, was also the birthplace in 1934 of the late Thomas Pannigona of Barrow, who helped his father trap in the area and enjoyed visits from reindeer herding friends.) The site was scheduled for a clean up in the early 2000s, but the entire site disappeared before the clean up could occur when it eroded into the ocean during a large storm. Brownlow Point now has a sharply eroded bluff and various timbers, caterpillar tracks, and cables are visible both

falling off the bluff and scattered around the land near the bluff, including a small remaining pile of barrels. No clean up is scheduled for these last traces of the staging area and likely within a year or two there will be no need.

As described above, the original village of Point Lay was located on the barrier island next to an unusually prominent small mound. Although there are several natural inlets through the barrier island into the Kasegaluk Lagoon from the ocean along the coast, there were never any inlets near the village site until the DEW Line arrived. As indicated by the official DEW Line site layout map and described by George Agnasagga and Bill Tracey of Point Lay, the DEW Line's main gravel haul was the area just south of the village mound. The extent of gravel removed was such that within just a few years, water pushed through the area and a man-made inlet was created. Once water started flowing through the inlet, the village faced the drastic and fast-paced erosion that forced them to relocate to the mainland, playing a role in the temporary demise of the village. "Because of that inlet the coast is eroding, the old houses are eroding into the ocean," said George Agnasagga (Sep. 13, 2009, Wainwright). Bill Tracey explained<sup>74</sup> that, although they would deny it, the DEW Line caused the inlet and the erosion.

Because it was the 1950s before everyone settled permanently in the larger communities on the North Slope, many older people were born at remote traditional camp sites. Especially since those were often coastal sites, many people have seen both their birthplace and the community they settled in affected by DEW Line construction. With PET 4 exploration and NARL, the military was already active in Barrow when Lillian Elavgak moved there from Kalovik ("where you dip net for fish") in 1947 (Elavgak, Oct. 1, 2009, Barrow). When her family moved to Barrow, they lived with an uncle until her dad built a house out of things from the dump that "the Navy people threw away" (Elavgak Oct. 1, 2009). The extended family had had four sod cabins at Kalovik, which is located just west of Point Lonely, DEW Line Auxiliary Site POW-1 (fig.30). (Marchie Nageak, Lillian's late husband, worked at Lonely before she met him.) Lillian's mother

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<sup>74</sup> Bill Tracey described the man-made inlet in an interview concerning fish with Sverre Pedersen of Alaska Fish & Game. Tracey's father-in-law, Warren Neakok, was the one who ran the equipment and removed the gravel as part of his job on the DEW Line.

claimed the land as her native allotment and willed her cabin to Lillian, who is the only remaining member of her immediate family. Her family's cabin is now the only one still standing at Kalovik – the other ones have eroded away. There used to be a large sand spit in the ocean in front of them, but the DEW Line gravel source was the beach at the base of that spit and, presumably, the spit itself. The spit is now completely gone and the beach has transformed into an eroding bluff. “It is way different with the DEW Line there now,” Lillian remarked (Elavgak, Oct. 1, 2009, Barrow).

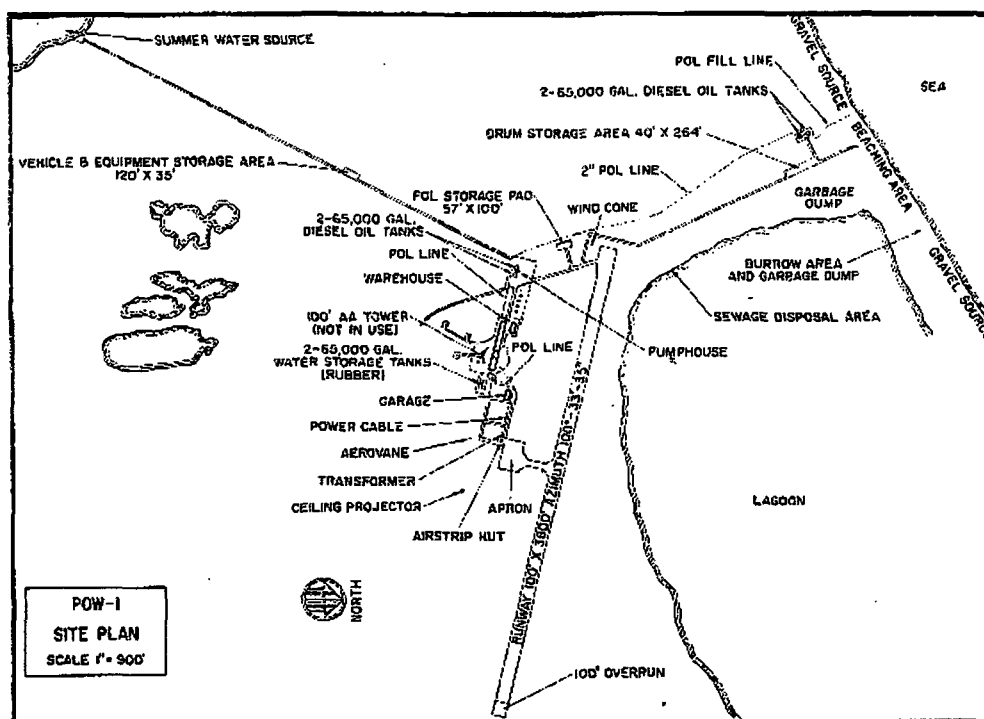
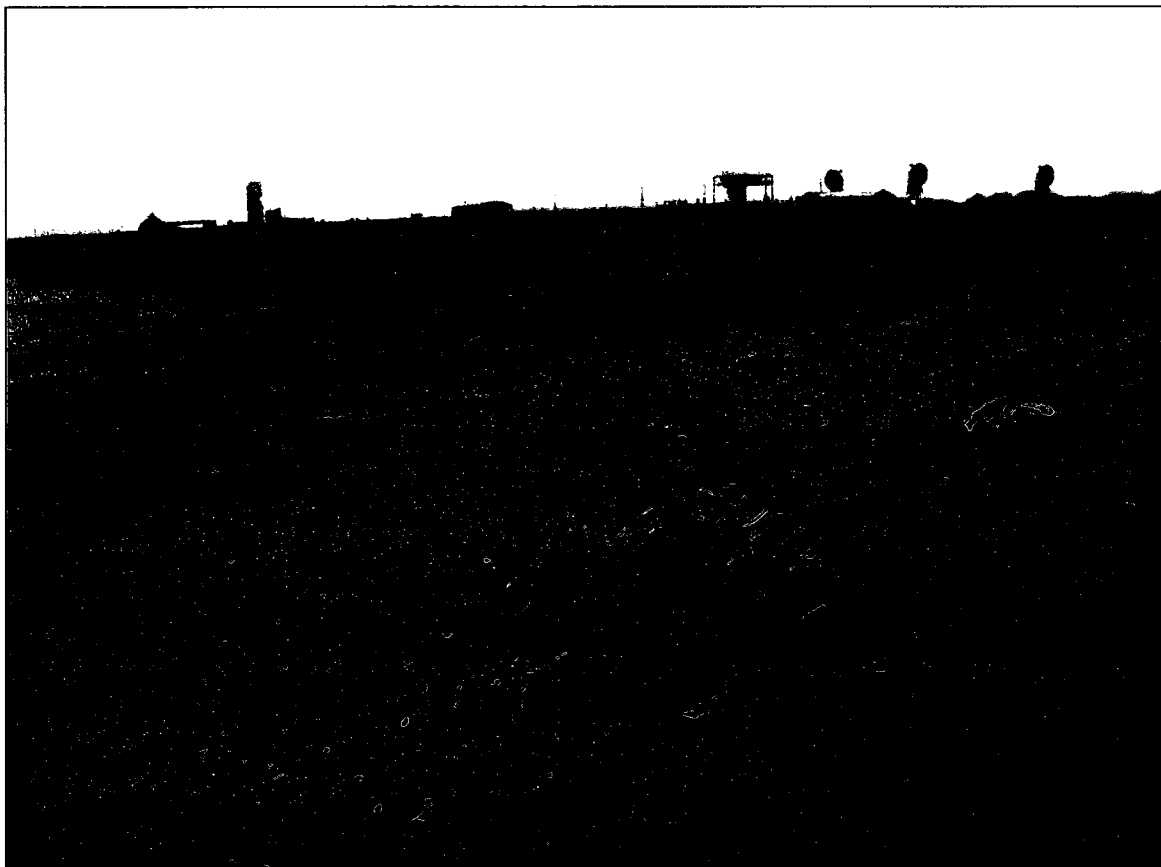


Figure 30: Site Plan for POW-1 (Point Lonely)<sup>75</sup>

<sup>75</sup> Kalovik (now abandoned) is located just off the top of this image, on the west side of the site very close to the fresh water lake seen in the top left corner of the image. The beach is the gravel source and site of the garbage dump, while the sewage disposal area (and second dump) is on the shore of the lagoon.



**Figure 31: ‘Sewage Disposal Area’/dump site on lagoon at Pt. Lonely (Aug. 2008).**

### **Dumps**

*“They always dump something here, dump something there, you know. They can’t help but dump this here, and dump that there, and so, well if they watch their dumping, you know?”* (Ben Linn, May 31, 2009, Kaktovik).

Other than communities losing their beaches and homeland at an accelerated pace, the most serious problem with erosion at DEW Line sites is when garbage dumps, many with contaminants, erode into the ocean (fig. 31). Although many people are aware of this issue in their own area, the extent to which this has occurred and/or is occurring at nearly every single DEW Line site on the North Slope was a significant finding of this research project. Before environmental protection laws were created in the 1970s, no records were kept of waste disposal, which is one of the reasons that local knowledge of



dumps and contaminants disposal spots is important. Official DEW Line layout images indicated that most sites simply used the beach for dumps, which meant that they would be affected by increasing erosion early on.

The dumps are notorious for the PCB-laden electronic transformers that crews regularly threw in along with lubricants, fuel, solvents, paint, anti-freeze and other compounds. Arctic cold slows the decomposition and breakdown of the chemicals, so persistent pollutants are still abundant in the dumps. “The halo effect” is the military’s euphemistic term to describe how the chemical contaminants concentrated at DEW Line sites tend to spread out to surrounding areas.

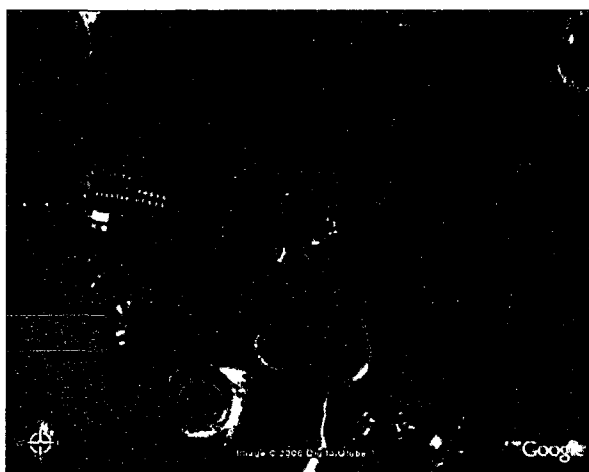
Until they were aware of contaminants, people used the dumps on a regular basis. Many people refer to activities at the dumps “before they were contaminated” or “before they got dirty,” which may simply mean before EPA laws passed and people became aware of invisible yet dangerous substances.

Sammy Lennie has had a wealth of experience with DEW Lines and their dumps since he grew up at three different DEW Line sites in the Mackenzie River Delta area: Tununuk (BAR-C); Shingle (BAR-2); and Tuktoyaktuk (BAR-3). The last time he saw it, the dump at Tununuk had not been cleaned up. Sammy Lennie remembers the first DEW Line dump near Tuktoyaktuk was never cleaned up, and he never understood that. The next dump was started very close to the community’s drinking water source. The dump was then moved back to the lagoon near Tuk, which runs off into the ocean. As Sammy explained, it ran off right where people used to fish for bottom feeders. In indicating on a map where the current dump is, Sammy said “[I]t is *atrocious*. [] There’s a lot of garbage there and a lot of run off, and it just runs off into the ocean” (Lennie, April 3, 2009, Fairbanks).

Growing up next to the dump, Sammy remembers that people used them quite a bit, including regularly taking their dog teams there to set them loose and let them feed – in effect a strange and industrial form of pastoralism.

*“We used to go there all the time. Me and my younger brother spent the whole day there, especially on the weekends with friends. Especially when they were burning the garbage, we’d find old paint cans and pound the lids on, through them into the fire and watch them explode. We loved blowing up things. We’d find cans and seal them up tight and throw them back in the fire and stand back and watch. Few times we’d come home covered like green, blue... little too close”* (Lennie, April 3, 2009, Fairbanks).

For years the wastewater from the Tuk site ran off the end of the small peninsula where the site was located (fig.s 32 and 33). Sammy said he does not know what it is was that they used to dump off the end, but that half barrels were tipped over and very dark black sticky sludge was poured over there bank and, “They done it for *years*” (Lennie, April 3, 2009, Fairbanks). A friend of Sammy’s ended up being a foreman on the clean up project, and he called Sammy up to ask him whether he had ever been tested. The clean up crew had worked on the entire beach and it was so contaminated with arsenic and PCBs that they simply removed the entire top of the hill where the site sat. Sammy Lennie remembered that the clean up crews, after removing the buildings, removed the entire top of the mountain and that the contaminated dirt was stored in large containers on the site for years.



**Figure 32: Google Earth image of Tuktoyaktuk**<sup>76</sup>

<sup>76</sup> The community of Tuktoyaktuk is on the left, the site of BAR-3 is on the peninsula on the right, and the dump is inbetween.

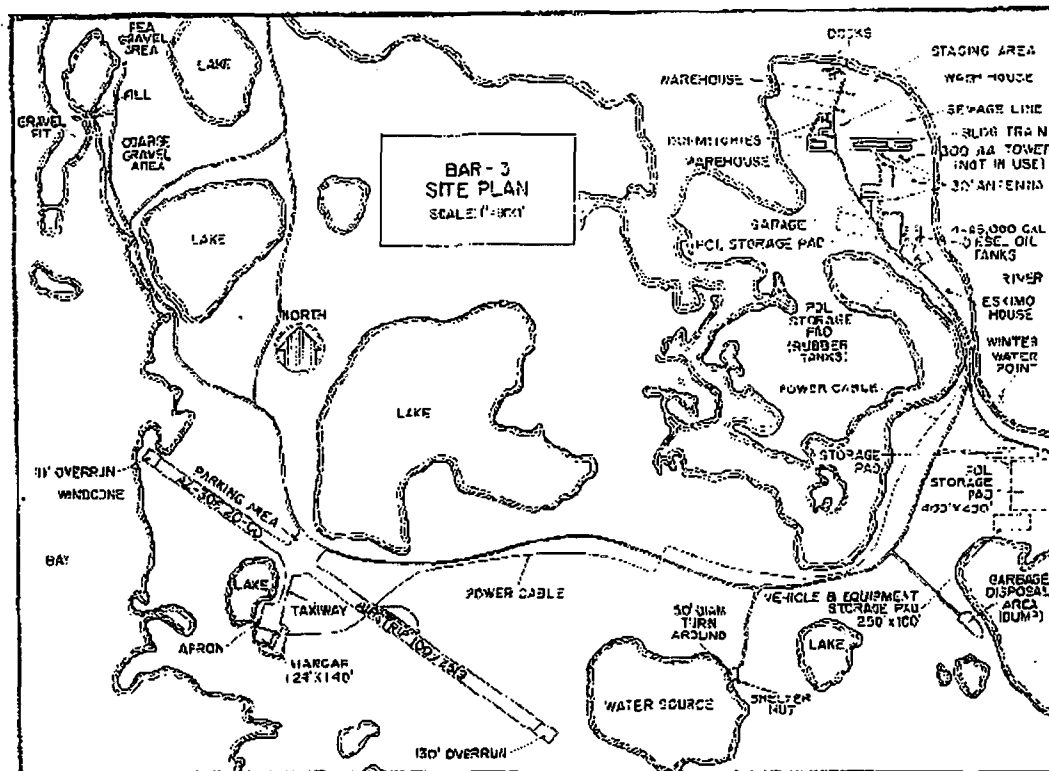


Figure 33: BAR-3/Tuktoyaktuk Site Plan<sup>77</sup>

Even after his habituation to the dirty dumps at the DEW sites in the Delta, Sammy remembers being distinctly impressed when he took a tour of the dump at Cambridge Bay (CAM-Main). Apparently the dump was spread out and exposed, so that equipment from the earliest days of DEW Line operation was still visible. “That was garbage from *way back*,” said Sammy.

Less than fifty miles east of Brownlow Point, the original Bullen Point DEW Line Auxiliary Site (POW-3, radio call name ‘Flaxman Island’)(fig. 34) buildings had been demolished after the DEW Line was deactivated in 1995. The North Warning System buildings remain, but the site was closed in 2007 due to erosion and budget concerns.

<sup>77</sup> This site plan for the Tuktoyaktuk DEW Line site BAR-3 shows not only the site gravel pit, but a ‘large gravel’ area and a ‘pea gravel’ area. It also shows one of the dump sites used as well as the “Eskimo House” where Sammy Lenny lived with his family.

Bullen Point is at the lowest elevation of any DEW Line site and, with no barrier island or ice to break up the waves, approximately 300 feet of land were lost just in 2006, according to Walt Audi. Bullen's garbage dump was at the tip of the point, the area that has suffered the most from erosion and some of it has been moved further back and covered with gravel. The entire original dumpsite is gone or is submerged, and a sprinkling of barrels is left to indicate what was there (fig. 35).

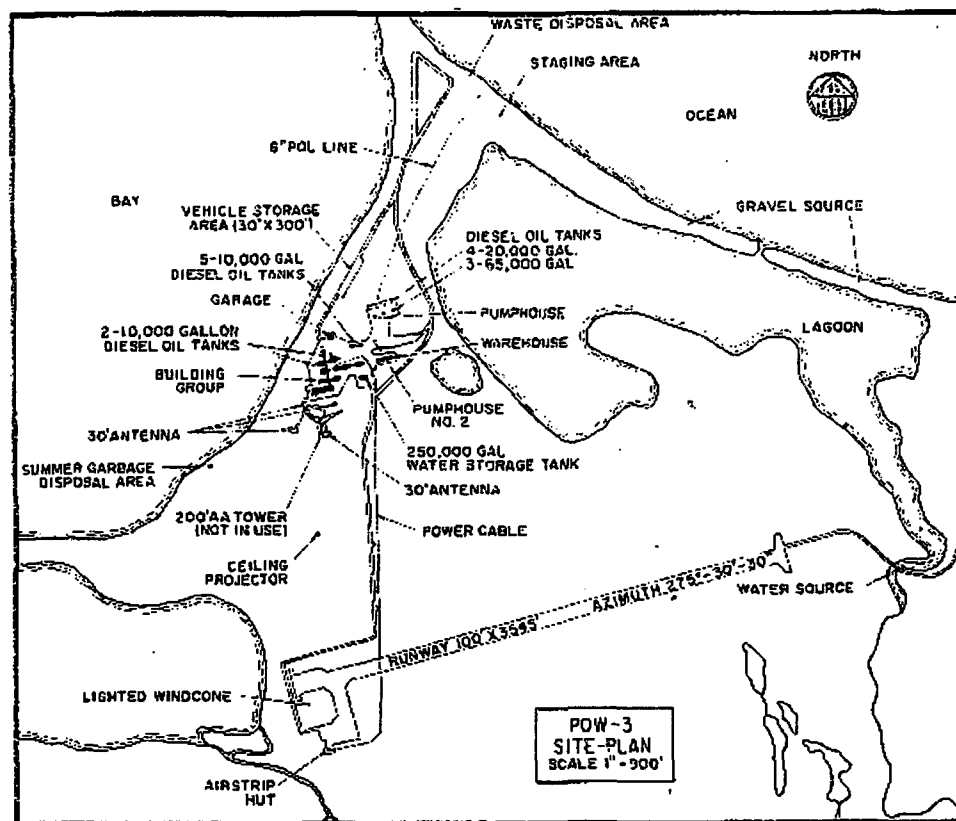
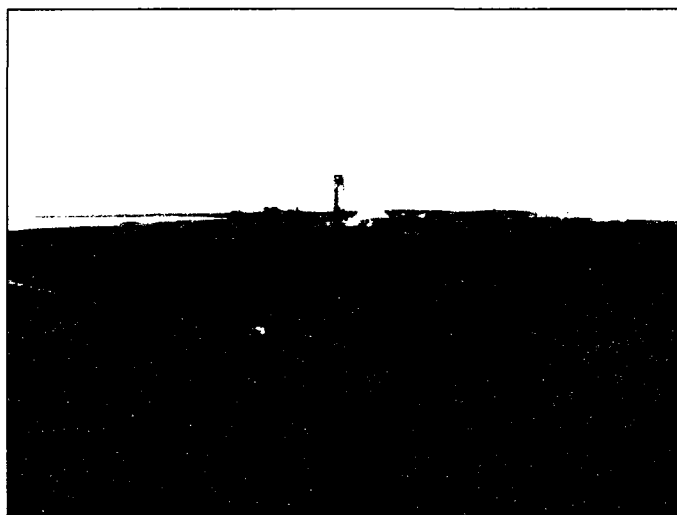


Figure 34: Site Plan for POW-3/Bullen Point<sup>78</sup>

<sup>78</sup> The site plan for Bullen Point shows the waste disposal area at the base of the spit, a summer dump on the beach southeast of the site, the gravel sources in front of the lagoon, and the original fresh water source (which is now salty).



**Figure 35: Bullen Point's northern waste disposal site viewed from the water**

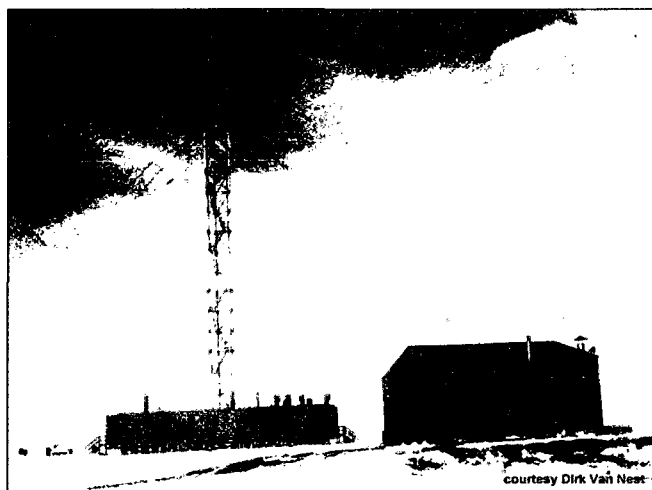
When it comes to dumps and contamination, George Agnasagga thinks that Kaktovik had it the worst of all the communities - except for the barrels in the lagoon at Point Lay. George remembered that there was no fishing for a long time on the river that goes into the lagoon. He and others from Point Lay described how the dump there was located behind the hangar, right down the bluff on the point of the mainland. About 15 years ago, the dump started eroding into the lagoon. Interestingly, that prominent dump site figures in the much older story of how Kali got its name. The people were living in the old village site, but there was no prominent mound on the island. A young boy had intense cravings for a particular plant that only grew over on the mainland. As George told it, the boy's grandmother told him to stay inside and not to even look out. She crossed the lagoon over to where the DEW Line dump is with her ulu and cut a big chunk of ground out. She packed it into her belt and compressed it down, but before she got home her son came out of the house and saw her. As soon as he saw her she was immobilized, never to move again. The mound of earth on the spit at Kali (Kali or 'qulli' means pull, referring to the fact that she pulled the land over) is the only mound on the entire series of barrier islands (Agnasagga, Sep. 13, 2009, Wainwright).

Point Lay people also have a second dump on the spit about six miles from town at an old US Coast and Geodesic base from 1947-'48. George Agnasagga thinks there

might still be a couple of buildings there. There is a fairly impressive landfill at this site that is still open and is full of batteries with drums piled and scattered about. “No one has complained, I guess they just don’t know who to complain to,” said George Agnasagga (Sep. 13, 2009, Wainwright).

### *Intermediate Sites*

An unexpected finding during the fieldwork for this project was the extent of debris and contamination at several Intermediate sites. The Intermediate DEW Line sites are often overlooked and their impact is underestimated because, relative to Auxiliary and Main sites, they were very small and because they only operated for about six years (fig. 36).



**Figure 36: Intermediate Site**<sup>79</sup>

Like other remote Arctic outposts, the I-sites are somewhat legendary. The sites technically only required one radican to run the entire base, and they did operate this way for a short time in the first year or so of their existence. However, management decided that it was logistically unsafe and possibly psychologically detrimental to have a single man stationed by himself at a tiny remote base, 50 miles from the nearest Auxiliary

<sup>79</sup> A standard Intermediate Site with Doppler tower, module, and warehouse. The photo is of the Stokes Point site in the Yukon (BAR-B), courtesy of [www.lswilson.ca/dewline.htm](http://www.lswilson.ca/dewline.htm).

or Main site, with hazardous travel, inclement weather and the constant threat of polar bears. The single crewperson was delivered to the site along with hundreds of TV dinners, something most people had never seen before (and with which most were singularly unimpressed). Lonely radicians, the stories go, would slowly lose their minds at the compounds - some taking out their frustration on the prepackaged frozen meals.

However, employees like Hal Phillips were what DEW Line managers' dreams were made of. It seems that if all DEW Liners had been like Hal, the Line would have run much more smoothly and would have required far fewer men. Phillips loved just about every aspect of the job and his years on the Line are some of the fondest of his full life. In addition to Point Lay, Wainwright, and Barrow, Hal worked alone at the intermediate sites along the Chukchi Coast, particularly Cape Beaufort (aka Cape Sabine, LIZ-A) halfway between Point Lay and Cape Lisburne and Icy Cape (LIZ-B), halfway between Point Lay and Wainwright. Hal, who wasn't necessarily a loner and got along splendidly with everyone at the larger sites, did not think that working alone at the I-sites was too bad at all. Moreover, he was very fond of the TV dinners.

Management replaced the TV dinners and single radicians with teams made up of a chef and four other men, almost always including a local Iñupiat since it was understood that their knowledge would be particularly necessary at these more independent and rugged sites. Life at the I-sites was still adventurous enough to serve as the basis for a fictionalized thriller, *Icy Cape*, (Griffin 1980), a book that portrays life on the line as populated by heavy drinking and sardonic characters replete with intrigue and explosions.

Icy Cape gained additional modern notoriety when the popular sci-fi detective television series *The X-Files* aired an episode<sup>80</sup> involving primordial ice worms that cause intense paranoia in hosts which took place at a remote research station supposedly

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<sup>80</sup> "**Mulder:** This is Agent Mulder, we have a serious biological hazard. Request air pick-up and quarantine procedures, over. Come in, Doolittle Airfield.

**Radio:** We copy, Agent Mulder. This area is under a heavy storm and no aircraft can get out for the next day. Maybe the military base in Kotzebue can set up a quarantine. Advise immediate evacuation, the arctic storm is bearing in your direction, over.

**Mulder:** We were told we would have three clear days of weather, over.

**Radio:** Welcome to the top of the world, Agent Mulder. Over." - <http://x-files.wikia.com/wiki/Ice>

located there, but Icy Cape had long been a place of legend. Icy Cape has not had a permanent settlement since the 1930s, but the area is very important for people from Point Lay and Wainwright. Before it was evacuated due to erosion, Icy Cape had long been the largest community in the region and a main whaling station.<sup>81</sup> People said that the northwest Arctic coast was dominated by Point Hope, Icy Cape, and, to a lesser extent, Barrow<sup>82</sup>. Icy Cape was larger – similar to Point Hope – and the people of Icy Cape were the largest Inupiat of all. One story told of a mummified Inupiaq man from Icy Cape at the Smithsonian Museum who was almost seven feet tall. Another story was of an Icy Cape man who was such a great hunter that no one believed he had succumbed to the sea and ice when he disappeared on an ice floe – they believe he made it to the Seward Peninsula and started a new life.

Because Icy Cape and other Intermediate sites were simply transmitter stations with a tower, one modular building, a small warehouse and five-man crews that operated from 1957 to 1963<sup>83</sup>, it seemed like the amount of debris would be proportional and, so many years later, largely gone. The scattered and vague environmental reports on I-Site remediation projects indicate several kinds of contaminants, but “the extent of contamination is unknown.” In my mind, that extent would be small (tiny base, tiny dump, contained). The reality of the I-sites was nothing like that. In effect, the military built a miniature city in each spot so that one radician could run a transmitter. Not only was the footprint of the I-sites far more extensive than I had imagined, the dumps were not removed at most of them (at some the dumps were eroded and at least one they buried a dump). Otherwise, the buildings and towers were removed at the sites and gravel was hauled in to level it off a bit. Tests were done, they showed contamination, yet there is no

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<sup>81</sup> According to George Agnasagga, fur prices were so good at that time that the people of Icy Cape had been able to afford to build and then move many of the framed houses from the village. Icy Cape people mainly moved to Point Lay, Wainwright, and Barrow.

<sup>82</sup> Before the Yankee whalers and the military created such a build up, Barrow was always small and relatively poor, and people in other communities note that Barrow people were also smaller and had fewer resources than other communities. While they had bowhead, Barrow had no wood or coal to burn and were largely reliant on seal oil.

<sup>83</sup> The Intermediate sites that were part of the BAR sector were operational for a few years longer since that sector was the early prototype (The BAR sector ran from Barter Island to Atkinson Point, NWT and included I sites at Demarcation, Stokes Point, Tununuk, and Atkinson Point).



method to enforce the laws that the State of Alaska Department of Conservation or any federal agencies conclude are being violated.

George Agnasagga filed a complaint about the dump at Icy Cape (LIZ-B), which, like Point Lay, is on the Kasegaluk Lagoon. George was on location when contractors demolished the buildings and reported that the crew did not touch the dump. “The DEW Line is on a hill and down where the bank is they put a lot of barrels and other stuff and at the bottom there is stuff seeping out. I don’t know what it is but it is pretty gooey” (Agnasagga, Sep. 13, 2009, Wainwright). There is also a half-buried upside down tractor and a wooden frame house. The land under the tower at Icy Cape eroded into the lagoon and the tower was twisted and dragged away by shore ice. James Tazruk also observed: “They did not exactly get everything when they should have” (Sep. 24, 2009, Point Lay).

The first Intermediate site passed during fieldwork was Stokes Point, Yukon Territory. Nellie Arey had pushed for clean up at Stokes Point Intermediate site after visiting there with her children and being horrified by the widespread debris and contamination. Several people, including her uncle, have had cabins near Stokes since before the DEW Line was built. As mentioned above, Nellie’s family cabin at Shingle Point is built from DEW Line material and sits in the shadow of the large Shingle Point Auxiliary site BAR-2, but she does not have any problem with BAR-2.<sup>84</sup> Nellie reported that it wasn’t just the dump at Stokes that was dirty, but that it had garbage all over and was unbelievably “gross” in the summertime. She had visited with her children and found the ground around the site was soaked with oil. When she and her family built driftwood fires, the wood produced only thick black smoke. “I didn’t like my little ones to go out that way ‘cause when you walk you could just see bubbles coming up - on the ground!” (Arey, July 18, 2008, Running River, Yukon Territory).

At the Peard Bay Intermediate site, it is safe to assume that the original dump is completely gone with the approximately 200 feet of shore that have eroded. Although the DEW Site was deactivated in 1953 and no further DEW-specific clean up occurred until the 1990s, Peard Bay was, like the old LORAN site at Skull Cliff some 25 miles away,

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<sup>84</sup> “I don’t know. This one was good - at least they didn’t have garbage all over. Like that one down there” (Arey, July 18, 2008, Running River, Yukon Territory).

part of a clean up of the Naval Petroleum Reserve in the early 1980s. An unknown amount of drums from that clean up were buried at Peard Bay in 1982 at the end of the lagoon (the area referred to by the subsistence users of the area as ‘the wood pile.’) Sampling has documented the presence of PCBs, pesticides (including DDT), petroleum products, volatile organic compounds and possibly arsenic on the road. The Alaska Department of Environmental Conservation records indicate “contamination is extensive” and noted another report of children playing at the site (2010a).

Fifty years after construction of the DEW Line was perceived as an invasion by his ancestors, James Olemaun remembers that the DEW Line clean up at Peard Bay turned the area into an active base. “It was something else,” Jimmy recalled, when a barge loaded with heavy equipment, wrecking balls, and a crane parked in front of their hunting cabins for the entire summer. The crews tore down the module, the outbuildings, and the tower. Jimmy complained that the heavy equipment scared off the caribou he was trying to hunt, but the clean up crew gave him open access to their kitchen. “They let us eat over there and what not. We’d go to their kitchen and watch movies and had access to everything in their kitchen – ice cream, pie, so...it kinda made up for it, missing out on some of the caribou, I suppose” (Olemaun, Aug. 31, 2000, Peard Bay).

The only obvious dump at Peard Bay is a medium-sized dump, now covered with gravel, that contains all the heavy equipment batteries that were gathered up during the project. A gravel pad covers the pit, which was lined with black rubber containment. At the current rate of erosion, that new dump (as well as the Tatchim Isua cabins) will be in the ocean within decades. During the three-stage clean up project at the site, crews were required to extract considerable amounts of gravel from the beach to cover up all the foundations and the dump. The crews first tried to take the gravel from the area right around the cabins (some of which are located next to the DEW Line road that runs from beach to the site on top of the hill) but the families who camp there successfully stopped them. It is safe to conclude that the Peard Bay DEW Line site underwent remediation earlier than many other sites because it is the seasonal camping and hunting area for two relatively powerful Barrow families.

In part because it is very difficult to obtain funding to undertake clean up projects unless hazardous substances are documented and because it is very expensive to contain or remove them even once substances are identified, many dumps and contaminated areas are abandoned. Complicating the situation, often to the point of complete dysfunction, is the fact that responsibility for many of the sites has passed through the hands of several agencies. Moreover, none of the agencies welcome responsibility for the DEW Line sites or the struggles involved with managing them.

Collinson Point, for example, lies at the bottom of Camden Bay, just west of Barter Island and within the Arctic National Wildlife Refuge. Families in the region had used this area, presumably for hundreds of years. Isaac Akootchook of Kaktovik was born at the site, known colloquially as Aguilguagruk ('jaw') or Nuvukpak ('sandspit point'). The land for the POW-D Intermediate Site<sup>85</sup> was transferred to the Air Force in 1957, and the site was deactivated in 1962. The land was transferred to the Navy in 1965, transferred to the Bureau of Land Management in 1970, and then transferred to Fish and Wildlife when the Arctic Refuge was expanded under the Alaska National Interest Land Conservation Act (ANILCA) in 1980. It was designated a Formerly Used Defense site (FUD), therefore the Army Corps of Engineers directs the cleanup and the Alaska Department of Environmental Conservation oversees it because they have authority to act in the place of the Environmental Protection Agency for FUDs in Alaska.

In 1997 and in 2000, the buildings at Collinson were demolished and 32-tons of contaminated soil were removed, along with towers, transformers, pipelines, and 176 drums. However, tests in 2001 indicated that PCB and diesel contamination remained significant and, according to the Alaska Department of Conservation website, there were concerns about a potential dump or dumps at the site but their status was unknown

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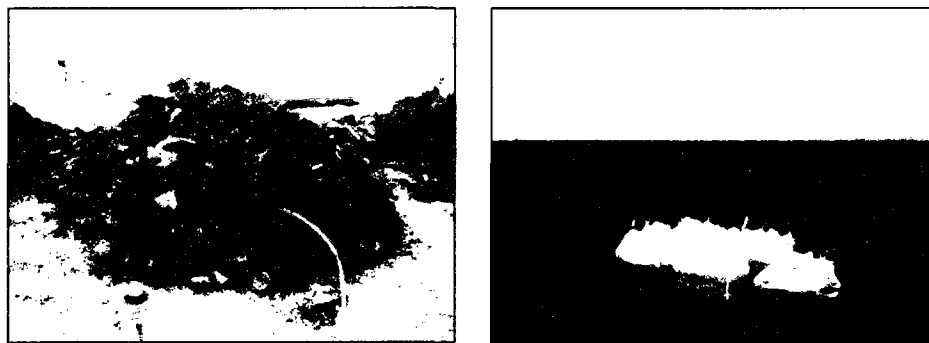
<sup>85</sup> The POW-D DEW Line intermediate site is usually called Collinson but is sometimes called Camden Bay and sometimes Brownlow Point or Nuvugaq (which means 'point' but would actually be Nuvukpak: 'point' or 'sandspit point' in Inupiaq). Other names for the area are Kangigivik Point and Agilguagruk (which means 'jaw' since the point is shaped like one - this is how it is known to the Inupiat of Kaktovik). The naming is quite confusing because there is another point in Camden Bay that *is* called Brownlow/Kongigivik, that site is the non-radar DEW staging area with fuel stache and eroded building.

(2010). Nevertheless, the Corps of Engineers issued a “Draft No Department of Defense Action Indicated Report.” The Alaska Department of Conservation, in part because of public comments it received indicating that contamination was still an issue at the site (Collinson, now usually referred to as POW-D, is an important subsistence area for Kaktovikmiut), refused to concur with that report and noted that the area was still littered with barrels. DEC compiled its findings and comments in a remedial investigation report and submitted that to the Corps, and eventually the ADEC closed out the project in September 2009 (Alaska Department of Environmental Conservation 2010).

Thus for the Intermediate sites, which are now FUDs, state agencies are attempting to enforce federal agencies to comply with federal environmental procedures and the result is less than efficient. The Alaska Department of Environmental Conservation works with the Bureau of Land Management in attempting to compel the Air Force to comply with federal environmental procedures for other DEW Line sites without much more success. Point Lonely (POW-1), for example, was a DEW Line Auxiliary site (deactivated in 1990) and North Warning System Short Range Radar that was closed in 2007. Husky Oil had previously done exploratory work in the Naval Petroleum Reserve from the area. The federal government (Department of the Interior) had granted 2,830 acres of "public" land to the Air Force for the site in 1957. When ownership passed to the BLM in the 1970s, the BLM leased 1,801 acres to the Air Force.

Contamination issues at Lonely are particularly sensitive because Lonely is located within the Teshekpuk Lake Special Area of the National Petroleum Reserve. While conservation groups (i.e. the Northern Alaska Environmental Center) would like the area to be restored to its original state, the Air Force characterizes use of the site as industrial and the BLM will most likely continue to lease the site for future oil industry activity. BLM and DEC have requested that the Air Force have the dump(s) at Lonely removed and consolidated at a previously industrialized spot that is some 50 miles inland. The Air Force, claiming financial constraints, wants to relocate the dumps to a site close to the eroding shoreline.

Lonely's dump was first reported to be eroding into the lagoon in 1983. In the summer of 2008, 25 years later, an apparently ineffective containment system was on the beachfront of the dump and scores of piles of contaminated rubble and dirt sat in rows, reeking of garbage and chemicals. Enormous bags of contaminated dirt were readied near the boat ramp to be loaded on the barge, and several of the bags had already ripped and spilled (fig. 37).



**Figure 37: Point Lonely contaminated material awaits packaging and shipment**

At Wainwright, the DEW Line dump was originally situated on the shore of the Kuk River, which forms the lagoon that wraps around the community. DEC's record search indicated that the landfill had been closed in 1974 and reportedly cleaned up in 1979-1980 (none of the informants for this project recall that clean up). It is also reported that a North Slope Borough gravel extraction project covered the site in 1987. Likely because of extensive DEW Line and NSB gravel extraction, the dump area has subsided and almost the entire dump has disappeared into the lagoon. Debris can be seen on the shore and in the water. Residents report that during especially low tides, much of the larger debris and sunken equipment is visible. The city used the dump as well (until it built its own in the 1970s) in similar ways as other sites: people would go find stuff and would feed their dog teams there. Since fieldwork was conducted in Wainwright in September 2009, a clean up project has begun on the dump.

On Barter Island, areas where the gravel was removed and, in part, used to *prevent* erosion in other areas (i.e. in drums along the airstrip) have experienced

considerable erosion. Nora Jane remembers playing as child on the immense gravel mound that was staged at the area in front of the hangar on the spit. “[T]he DEW Line had got [it] along the coast. I think that is why we’re eroding, cause of they took that buffer. [T]he beach used to be further away when we were kids” (Burns, July 31, 2008, Kaktovik). Children were not allowed to go over to the area further along the beach (to the west) because the DEW Line crews (including many of the children’s fathers) were digging up gravel from there and bringing it to the base of the runway. Middle-aged and older people in Kaktovik become nostalgic when they describe the beautiful, thick gravel beaches that the island used to have:

*“Well, we used to have a big, long beach. I remember that. Big, long beach. Till the DEW get gravel out from it. [] We used to put our boats way up there, and we have no problem. And then the DEW Line come over and take gravel out where there is needed.”*  
*“And then when there is a big wind, the tide erodes a little at a time. [] It really tore that off. You can’t even go around the island anymore.[] Me and mom used to go all the way to the end, past where Grandpa’s place is<sup>86</sup>. Used to walk and fish, come back with the dogs. [] Well, our island is getting smaller and smaller I guess.”* - (Agiak, May 31, 2009, Kaktovik).

Nora Jane Burns remembers poking around in the Barter Island dump just because she was nosy and curious. She does not remember anybody being afraid of it, it was a normal pastime for kids and adults. She and the other kids “used to hook up Eddie Rexford’s dad’s dogs so we could go to the DEW Line dump before it got contaminated. [T]hose guys from the DEW Line used to throw brand new erasers and pencils that we can find and use at school.” They would look for all kinds of office supplies that hadn’t been dirtied with food and whoever found a cigar box was “king of trading” (Burns, July 31, 2008, Kaktovik). Often the DEW Liners would set food that was recently outdated (especially cans of fruit and tomato juice) on the side where families could get to them

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<sup>86</sup> Tom Gordon’s trading post was located on the western side of Barter Island.

easily. Elder Lillian Akootchook remembered picking up “good stuff” when she was younger. “They throw away some new stuff, I pick it up and use it. [G]ood bucket, you know” (May 5, 2009).

A particularly satisfying dump diving memory for Alice Agiak was the day she and her cousin were bored, decided to go to the dump and found six cartons of cigarettes. Her father was a bit suspicious when they brought them to him, but she explained that they were from the *iqtak*. “Yeah, we hit the jackpot that time. Free cigarettes! I guess before their merchandise come. You know, throw out the outdated, so” (Agiak, May 31, 2009, Kaktovik). Even though she got a serious scar on her head from playing Frisbee in the dump with objects that she describes as computer discs larger than vinyl LPs, overall the quality of goods in the dump was high. “They throw a lot of stuff in the dump. Cases of this and that. Nice, good stuff, though” (Agiak, May 31, 2009, Kaktovik). Alice does not remember when she became aware that there were contaminants in the dump, although now she knows.

Nora Jane guessed that people stopped dump diving “when they started getting real dirty dumps, I guess. Or, not clean trash, or I don't know” (Burns, July 31, 2008, Kaktovik). Nora Jane can only recall for sure that she left Kaktovik in 1969 for several years, and when she returned it was totally different.

Although most people who were shown pictures of eroding DEW Line dumps along the coast were shocked at the extent, James Tazruk was not surprised to see a map depicting a few of them. “No. It’s what they do best: make a mess. Yup. Just use it and leave it and never mind” (Sep. 24, 2009, Point Lay).

### ***Contamination***

In *Silent Spring*, Rachel Carson remarked that the only location where scientists could find a diet free from DDT and related pesticides was “on the far Arctic shores of Alaska” among people who had never left the area (Carson 1962). However, Carson lamented that “even there one may see the approaching shadow,” (ibid) and this omen was based only on her knowledge of persistent pesticides and cancer risks. It would not have occurred to her to include other persistent industrial chemicals, such as PCBs,

because at the time most people only considered an agent as “poisonous” if it caused immediate death or obviously gave people cancer. Scientists did not recognize until 1966 that many persistent compounds that are not acutely poisonous or carcinogenic can wreak at least as much havoc in the environment. Carson died in 1964, of cancer, before people realized that synthetic chemicals, many created decades before the pesticides, could seriously impact human developmental processes and reproduction.

In the Arctic, it was a particularly relevant and personal to learn about the dangers of invisible poisons as people learned at the same time that the radar bases were hotspots of contamination. Sammy Lennie said, “I wasn’t aware of it, didn’t know what contamination was. I remember seeing ‘Caution Radiation’ but I didn’t know what it was. Especially around the big radar dishes, they were used to have signs on them: “Caution, Radiation, Radioactive Material. [] But you see, that was our playground” (Lennie, April 3, 2009, Fairbanks).

Most people have accepted that the military and contractors were not intentionally putting them at risk. “They didn’t know anything about environmental stuff back then either so they didn’t care whether they messed up our shores or anything,” said Mary Ann Warden. George Agnasagga was sad about the contamination but said, “I don’t really blame them too because at the time there were no EPA laws and the only ones who would be complaining would be us villagers and who is going to listen to us? What voice do we have?” (Sep. 13, 2009, Wainwright).

The lack of blame, however, does not mean that residents are unconcerned about or ignorant of contamination. Some people are quite bitter about the health risks and the deaths that they believe are attributable to the contamination. When it was suggested to a Kaktovik man (by his friend) that he might be interested in talking to me about my research, the man said, “I don’t want to talk about the DEW Line because the DEW Line killed my parents.” This perspective does not raise any eyebrows in Kaktovik.

Etok, on the other hand, sees contamination from the DEW Line as a small scale and secondary issue. “Most of it has already leached out. Gone.” Later, however,



discussing the issue of contamination on personal allotments, he said, “Oh yeah – completely. Everybody’s land is contaminated” (Edwardsen, April 14, 2009, Fairbanks).

Robert Thompson thought that operation of the entire DEW Line was a particularly “big drain” on the U.S. economy because of the “cost plus” practice that was used for all contracted projects. In addition to being financially profligate with taxpayer dollars, this method also resulted in more material being procured, wasted, and dumped.

*“I worked there and the projects that they would come up with, the more it costs, the more the contractor makes so there’s no incentive to get it done in the most efficient manner. The longer it took, the more they’d make and that was quite obvious when I worked there on summer work projects that they were taking their time and making it last. That’s just the way it was”<sup>87</sup>* (Thompson, May 5, 2009, Kaktovik).

Robert worked at the DEW Line doing summer labor work for a few years. “I saw things go into that dump,” he recalled. “Fire retardant paint, which is something that they’re finding in animals in the Arctic, and there’s thousands of gallons of it in there.” The vast amounts of extra paint, for example, were due directly to the cost-plus method of project procurement:

*“They would order huge amounts of paints and it would cost more so they could make more money. And they would take it and put it into the dump, into the ocean.[] They had a warehouse where they put all the extra paint that was left over from all the paint projects they do every summer for years and years and years and a lot of the paint had spoiled and got frozen and they disposed of it and it went into the ocean, it went into the dump”* (Thompson, May 5, 2009, Kaktovik).

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<sup>87</sup> Robert was incredulous that one summer he worked there he was assigned a room at a cost of \$75 per day. He told the managers that he did not need a room since he lived in Kaktovik, but they did not care.

Other people in Kaktovik, including Mary Ann Warden, have reported that they used to catch a wide variety of good fish around Kaktovik “before the water got really dirty.” When asked whether she meant it was muddy, Maryann said no, the water was “gunky” and that there was “gunk,” like globs of paint, all over the fishing nets.

The issue of contamination causes Robert Thompson to reflect on the health effects of the Agent Orange his troop dropped on people in Vietnam. Agent Orange was determined to have negative health effects on the U.S. troops who were in and out of there quickly, and Robert wondered about the people that have had to deal with it until it wears off. “And the DEW Line here – there’s still chemicals on the ground, there’s PCBs – polychlorinated byphenols – on the ground at Kaktovik at this moment that still haven’t been cleaned up. There’s a number of sites that we’ve told the Restoration Advisory Board and it hasn’t been cleaned up adequately. They just got a dump site that got washed into the ocean and that was moved, I’m not sure that’s an adequate remedy for it, it should have been moved out so we wouldn’t have to deal with it” (Thompson, May 5, 2009, Kaktovik). Realizing that the problem is certainly worse in other parts of the world<sup>88</sup>, Robert says that the issue of contaminants being left or buried near arctic communities isn’t surprising. “Yeah, that’s a common problem for indigenous people. It wouldn’t happen in Los Angeles or wherever.” Robert remembers when a transformer full of PCBs exploded in Fairbanks: the entire area was cordoned off and they cleaned it up on the spot. “They didn’t leave it there for 40 years on the ground...” (Thompson, May 5, 2009, Kaktovik).

Thompson is certain that contamination from the DEW Line has contaminated local food sources. It clearly had, he thought, because they pushed everything into the ocean for fifty years. Much of that material does not degrade but bioaccumulates in the food chain and is still present in the environment. He would like to see testing done on

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<sup>88</sup> “...where nobody is watching them - you know, you got contractors, they are trying to make money, you got chemical problems, takes money to clean it up, there's nobody watching, no oversight, they are going to do it the cheapest way possible. It's just human nature. It's happened just about everywhere. The only thing that stops them is that here in the United States we have laws that can be enforced if people report it but if people didn't report it they wouldn't do anything - they were prepared to let the dump wash into the ocean up here and there's a lot of hazardous chemicals in them.” – Robert Thompson

some of the fish and other food resources. At RAB meetings, Robert brought up the fact that there was still contamination on the ground and he claimed that the DEW Line engineers and other officials would become angry, claiming that leaching does not occur in the Arctic and that everything had been thoroughly tested. Robert acknowledged that they did come do testing but that they actually lied to the community about it. For example, the officials showed pictures at the RAB meetings and reported finding a little bit of battery acid in one spot, no more. “We're probably lucky they have made what attempts they have did to clean up things but there's still chemicals on the ground” (Thompson, May 5, 2009, Kaktovik).

One reason that people in Kaktovik are suspicious of environmental testing that finds only small, isolated amounts of contamination is because, like Robert Thompson, they worked at the site and they themselves participated in the disposal of hazardous material. Several buildings, such as the garage and the warehouse, simply had large holes in the floor through which all waste material was dumped for decades.

On the question of whether contamination from DEW Line sites has affected subsistence resources, James Tazruk of Point Lay said, “In some way, I think some of it might, I'm sure it did” (Sep. 24, 2009, Point Lay). He thinks that people are aware of it and that is why people will bag, tag, and send out any animal that has something wrong with it.

Walt Audi was one of very few people who did not believe that DEW Line contamination had affected local food and resources. Audi did not believe that the Kaktovikmiut thought so either: “Nah, they are still getting plenty of fish...” (Audi, Aug. 8, 2008, Kaktovik).

Ben Linn did not think that contamination from the DEW line had affected animals. He thought, if it had, you would notice after all these years. Only the people have been affected, he said, but animals tend to stay away from populated areas.

On that subject, Ben Linn is in agreement with most people on the North Slope. Linn, whose father passed away 30 years ago after working on the DEW Line for many years, said “all those people that worked at the DEW line sites, they're buried up there

(indicating the cemetery), they had cancer. You know, they didn't know about asbestos, or all those cancer causing agents, and they mostly wound up in the grave, almost everybody that worked up there at the DEW line site" (Linn, May 31, 2009, Kaktovik).

Sammy Lennie does not understand how he hasn't gotten sick, given the number of people he has known that have died of cancer around Tuk. Many there suspect the illness is due to the fact that they used to take their drinking water right from the harbor in the wintertime.

Jimmy Olemaun, remembering his summers spent playing in the abandoned module at Peard Bay LIZ-C, said, "I wouldn't be surprised if we got cancers from that deal. I mean the walls, the insulation. We were exposed to it without a doubt. PCBs are the worst. [] We had people come by here a few times getting water samples – they would get a bunch of water samples from especially that lagoon because of their junk that they buried at the wood pile" (Olemaun, Aug. 31, 2000, Peard Bay).

Carla's father Mark Sims had died while he was in his forties of a brain tumor. His family suspects that exposure to radiation and contaminants may have played a role, and Mark Sims himself had been very critical and distrusting of the DEW Line's impact on the environment. Carla remembered that her father borrowed her camera to take pictures of containers marked "PCB" that he found in the dump to document it before it was covered up.

"For me, I think high cancer rates are due to military contamination/actions whether nuclear testing or throwing stuff into the so-called landfill, our lagoon," Isaac Panik of Wainwright concluded (Sep. 13, 2009, Wainwright).

In Kaktovik, Alice Agiak also thought that contaminants had affected the local area. "Big time. Yeah, there's still metals all over this lagoon over here. The 'dozer, its still there, I could walk on over here, there's still a lot of metal out there in the water" (Agiak, May 31, 2009, Kaktovik). Now that the people know how dangerous the materials are, she does think it made people sick. Alice also said that she did not know anything about concerns over home building materials, but then "Oh, there was a lot of asbestos. We used to play with them, too" (Agiak, May 31, 2009, Kaktovik).

Walt Audi laughed when discussing homes built out of contaminated material. “And what – they want the Air Force to be responsible for it?” (Aug. 8, 2008, Kaktovik). Walt was also incredulous that the village corporation had been offered the newest building on the site (an apartment train built in the late 1960s), but it wanted the Air Force to clean up the asbestos and lead-based paint. Walt laughed – “No way! [] The Air Force gave the corporation a really nice building – they just tore it down and buried it in the new dump up there” (Audi, Aug. 8, 2008, Kaktovik).

Walt Audi had already dealt with people’s suspicions about contamination when he was mayor of Kaktovik. Carla Sims Kayutok and many of her neighbors believe that the radar was (is) also affecting the health of the village. She explained that her father and other men documented the phenomenon and sent their findings to the military: “Low and behold, everything disappears.” Walt Audi acknowledged that some people think the radar is a concern and that it is causing defects, but he does not know. He recognized that it looked suspicious when Mark Sims died of brain cancer in his forties. Audi was a rigger - he used to work on the antennas at the sites. The antennas were supposed to be turned off when he was on working on them, but he did it with them running. “There’s one banked like that, one banked like that, there’s all this stuff in between pointing out like that. I used to get up in there and work on the wave guides and stuff like that, with it running. Wasn’t supposed to be, but you know, I was in the radome quite a bit” (Audi, Aug. 8, 2008, Kaktovik).

Carla and her neighbors refer to the area of town as “the little triangle” and kept track of all the places in that area where the phones beep periodically. People are pretty sure it is coming from the DEW Line (“but they’ll deny it”). Carla told then-mayor Lon Sonsalla (an ex-DEW Liner like her father) about it and she said she found out that the beam does go straight through that section of town and that with new technology the beam can actually be diverted, but the military will not change it. Carla and her neighbors have wanted to formally document who in town has had tumors, cancer, other things and came to the conclusion that it was mainly people who worked at the radar site or lived in the path of the radar.

Almost every interviewee for this research had the same impression – that men who worked at the DEW Line died of cancer. North Slope Natives' experiences with and perceptions of cancer is a critical element of modern history in the western Arctic. Connections between the DEW Line and cancer have been introduced here, while the larger issue of cancer's role in shaping attitudes on the North Slope is analyzed in the conclusion to this dissertation.

### *Clean up*

Once the extent of the contamination on the DEW Line sites was understood, a controversy developed between the United States and Canada over responsibility for the cleanup of deactivated Canadian DEW Line sites. The United States insisted that it was Canada's responsibility to clean up the sites they had managed, but the Canadian government disagreed. In 1996, an agreement was reached that saw the United States contribute \$100 million to the estimated \$600 million cleanup effort.

In Alaska, employees of various contractors and government agencies spoke candidly about how the clean up program is increasingly seen as a contentious bureaucratic boondoggle. After endless meetings, comment periods, and bureaucratic red tape, the people are usually frustrated as well and few have faith in the clean up process. It is safe to assume that most people on the North Slope have a better understanding of Contaminants of Concern, Persistent Organic Pollutants and PCBs than average Americans do. Not only have many attended RAB meetings, but as mentioned, many have taken hazardous material remediation training courses at Ilisagvik College in Barrow.

It must be said that people, usually elderly people, who do not have a full understanding of chemical contamination, exhibit greater faith in the clean up. Older people understand petroleum spills as pollution but otherwise discuss contamination as though they conceive it to be like garbage in the dump and rusty abandoned barrels: something tangible that can be removed. There seemed to be a direct correlation between the amount of knowledge a person had regarding toxic chemicals and their faith that clean up projects have been adequate.

Bruce Iglangasak's grandfather, Old Irish, worked on the DEW Line sites in Canada's western Arctic for several years and built a house out of DEW Line material at Stokes Point. This is an example of the cyclical nature of DEW Line employment: decades later, Bruce worked demolishing, shipping, and burying numerous DEW Line sites in Canada's western Arctic. He reported that they never actually removed a great deal of trash, it was simply moved to other sites and buried. Using heavy equipment, they tore down the buildings at Tuk, cut them up into big slabs, picked up entire buildings at a time and set them on barges before pushing the barges to Cape Perry (PIN-Main) and burying everything there. Bruce had no idea why they decided to bury the material from Tuk at Cape Perry and guessed that it was just to get it out of Tuk (Iglangasak, May 24, 2009, Kaktovik).

The ship that Bruce worked on spent two years hauling out just drums. "We didn't take any housing materials, those were all buried. No, we didn't take much out of the site. Mostly the drums, just the drums were taken out of the DEW Line sites and shipped south. Not sure why. Maybe because they couldn't cover it all up, I guess. But there were lots of drums." While burying all the other debris at Cape Perry, Bruce related that crews dug a huge hole right on top of the mountain and put a heavy liner in it. "I guess when they were filling it they punctured the lining and the following year after the project was over some people went and checked it out. They thought they did something good there, but it got worse" (Iglangasak, May 24, 2009, Kaktovik).

Bruce agreed with environmental contractor Defense Canada's characterization of the DEW Line as the largest environmental problem in Canada. He said that not only has he been to ten sites and seen the mess that is still there, but that most of the sites are areas that are rich in wildlife: fish, belugas, bowheads, birds, etc. Bruce thinks that there is still much clean up to be done and that some sites will be particularly difficult to remediate:

*"Pierce Point Harbor is going to be a hard one, 'cause it's right on top of another mountain, and they just dumped the garbage over the cliff on the south side of the site. If you look over the cliff, you can see rust, metal, batteries, equipment, drums, etc. And*

*there is a river that runs right along, comes out by that mountain. And a lot of fish use that river. That site, I remember taking eight 55-gallon drums of PCBs. This was taken just from the top, right from the site, the exact site where the houses were. I know they gotta work on that one” (Iglangasak, May 24, 2009, Kaktovik).*

Bruce also remembers taking two sealifts out of Komakuk Beach, Yukon (BAR-1). Some of the contaminated debris was taken to Cape Perry, some went south, up the McKenzie River, and some went to Shingle Point:

*“Shingle Point was another one – I don’t know why they find that they can bury trash in a river or a gorge. They just dug a hole on the side of the river, dug a pit, and then they bulldozed everything into it and buried it. Right in the river. Right alongside the river. And that area there is full of wildlife during the spring and summer seasons, all these swans, cranes, all kinds of ducks, geese. We’ve even got eagles nesting in that area, a lot of eagles along the rivers. Two of them rivers. The trash just drains out into the Beaufort...A lot of herring use that bay. Belugas, seals, they are all contaminated” (Iglangasak, May 24, 2009, Kaktovik).*

Having seen a significant number of DEW Line sites on both sides of the border, Bruce thinks that Canadians are more informed about issues surrounding contamination because the clean up there started 15-20 years ago, whereas the clean up on the U.S. side started in the past 5-10 years. However, he sees no difference in the quality of the clean up projects in either country: “Same all around.” Bruce reported that at every site his crew worked on, “we’ve taken quite a bit of PCB out of the sites. *Lots.*” Canadian sealift barges, he described, were 150 feet wide and 340 feet long with drums ten high stacked from bow to stern. “Just from one DEW Line site” (Iglangasak, May 24, 2009, Kaktovik).



Bruce was not aware of any local, native oversight of the clean up work and he does not believe that contracting out the projects leads to good oversight (the projects he worked on were contracted out to both Northern Transportation Company Limited and Grubbins Transportation out of Tuktoyaktuk). Another construction crew from Inuvik finished the remediation site at Cape Perry.

Bruce recalled that there was a good deal of local hire on the jobs, but that the employees were not properly trained:

*“I guess they weren’t told how it should have been done to begin with. They just said, ‘Here’s a pick and shovel and go bury this for us,’ and pay you this. Pretty much the way it went...I don’t know how these people think to bury PCBs right smack damn in the middle of all this wildlife that happens. They’re not very bright. Maybe they don’t value life, or anything”* (Iglangasak, May 24, 2009, Kaktovik).

Like most people, Bruce does not have confidence that the contamination is adequately cleaned up or contained. “You can take a picture of a cleaned area, but you can’t see what it under the soil or the water, or what’s draining out into it. If they were going to clean it, they should have dug it right out. Shipped the whole thing, dirt and all. Out of the Arctic” (Iglangasak, May 24, 2009, Kaktovik). Bruce thinks that they are getting away with this kind of clean up because it is on native land, and thinks that if such a base were built near white people it would have been cleaned up better. He also believes that contamination from the DEW Line has caused an increase in cancer. “All our elders – they all got cancer and they are dying at an early age. All our kids, all their kids are, everybody’s contaminated now” (Iglangasak, May 24, 2009, Kaktovik). Bruce also thinks that the Army knew that PCBs and other contaminants were dangerous back in the early decades of their use. “How did they make that PCB to begin with? Right from where the person made it, who he sold it to, who’s buying it, must have knew” (Iglangasak, May 24, 2009, Kaktovik).

After two years on the DEW Line clean up job, Bruce was transferred to a different boat because he was “saying things... against some other people about the way things were done.” Luckily, Bruce is a good and valuable operator so they relocated him to another boat for the rest of his years with the company, and now that he has his own eco-guide business he is not worried about getting hired back to do that kind of work.

Jack Oktollik worked on the clean up of the Cape Lisburne radar site in 2000 through Agvik Environmental Services out of Point Hope. Besides being impressed at the amount of infrastructure at the site (a bowling alley, complete gym, a bar, utilidors connecting all the buildings), he noticed a distinctly more aggressive attitude from Point Hope people regarding contamination. The company in charge of the clean up wanted to bury everything, he said, but the people of Point Hope insisted that the military (contractors) haul it all out of there: “They tell them ‘No, take it back where you got it.’” He recalled that the officials had identified only one “hot spot” at the site that merited complete clean up, but that no one believed that spot was the only dangerous contamination at Cape Lisburne. There were numerous other spots with full drums, but testing did not show a high enough level of contamination. “They left most of it anyway. Military is always hiding some stuff. [] The military was just trying to save money. They got all the money they need to haul all their buildings out.” The people at Point Hope, according to this informant, were particularly unimpressed by the clean up process and are convinced that the military is looking for uranium at Cape Lisburne. Summing up his observations on military pollution of the region, Jack said, “I guess that’s why there is a high level of cancer. I don’t know if it is higher but people are dying left and right of all kinds of cancer. They are pretty much contaminated.”

Like construction, an important aspect of DEW Line clean up was the short-term employment it provided for qualified local people. Many residents of the North Slope have received training (i.e. HAZWOPER – Hazardous Waste Operations and Emergency Response Standard) at Ilisagvik College in Barrow in the remediation of structures with asbestos and other toxic contaminants. Gwichin elder of Fort McPherson, Robert Alexi worked on construction of the site in Tuk back in the mid-fifties and has never been back

to the Arctic coast since that job. He had, however, heard about the clean up: “I hear a *lot* of clean up, lot of money. Lot of clean up.”

Etok, haphazardly defending the DEW Line sites, claimed that the North Slope Borough has “made about a billion dollars from cleaning up activity of the military to this day!” (Edwardsen, April 14, 2009, Fairbanks). Aware that copper is one material valuable enough that crews have scavenged and sold it from DEW Line sites, I asked Etok if that was part of his calculation. “We made over a hundred and fifty million of selling their junk back to China – hauling them out directly to China” (Edwardsen, April 14, 2009, Fairbanks).

Other people reported that there was not enough local hire on any of the clean up jobs. “They always say local first, but its always the other way around,” said Betsy Tulugak of Wainwright. Elder (and 25-year employee of BAR-Main) Isaac Akootchook, however, is not so sure about whether local hire is appropriate for this kind of work: “[T]he Air Force – they themselves maybe better clean up that mess” (May 31, 2009, Kaktovik).

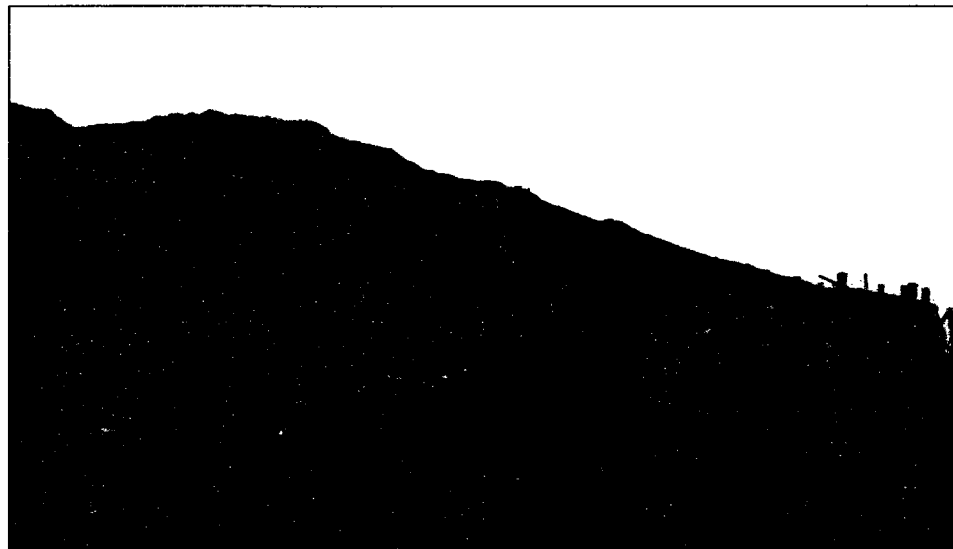
Isaac Akootchook remarked that Intermediate Site BAR-A (Demarcation) had undergone a clean up, but that a lot of debris was left there. The community had pushed for several clean up projects, but he lamented: “Always waiting for money, doing paperwork,” while the debris is still there (I. Akootchook, May 31, 2009, Kaktovik). Isaac said that the military’s stuff is always “left behind [] because of the DEW Line bosses can’t listen to the Iñupiaq people. The Air Force – because he know better [] but later on they find out the way it is. [] Well, we tell you. We live up here, we are raised up here” (I. Akootchook, May 31, 2009, Kaktovik).

### ***BAR-Main Dump***

No one in Kaktovik ever suggested that instead of removing the eroding three-acre dump on their island, the military should spend millions of dollars trying to stave off the erosion. When the erosion control measures failed, no islanders approved of Plan B: moving the dump about 1,000 feet back from the bluff. The story of the Barter Island

dump is an epic saga and the crowning irony of DEW Line clean up stories in the western Arctic - one that promises to provide drama for decades to come.

The shoreline along the northern front of Barter Island in front of the DEW Line site eroded over 160 feet between 1974 and 2000. Since the dump reached the shore, 160 feet of the dump also eroded into the ocean during that time. In 2000, an erosion control program was undertaken that was designed to recreate beach in front of the dump (fig. 38). The project included extensive sandbagging of the eroding dump bluff and a series of steel groins and barriers implanted on the shore and in the shallow waters in front of the dump. According to informants in Kaktovik, everybody told the Air Force that this wasn't going to work.

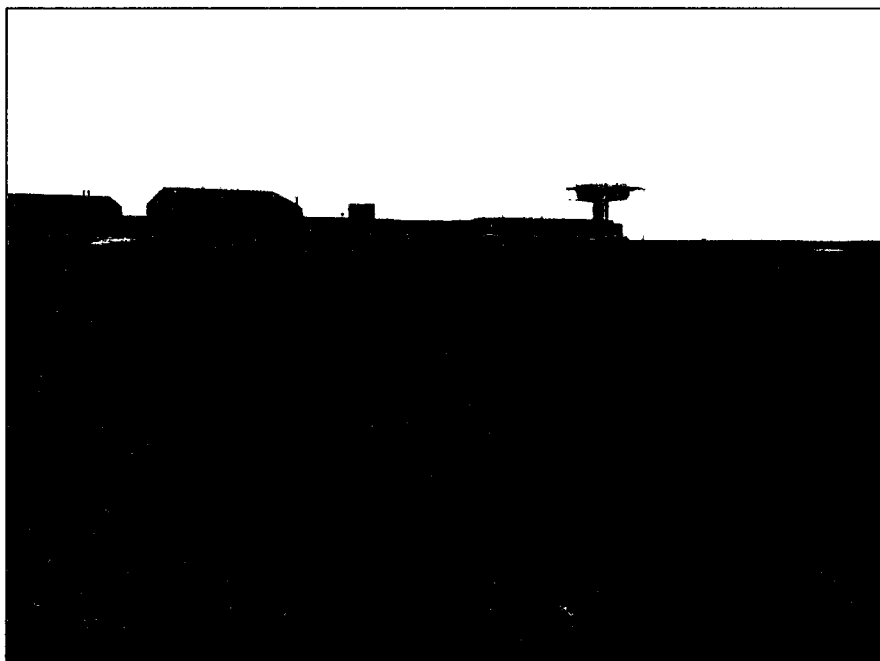


**Figure 38: Erosion control measures at the Barter Island dump in 2005**

Cost estimates prior to work were \$770,000, but by completion the total cost of the project was rumored to be tens of millions of dollars. Furthermore, the system required annual maintenance. By 2005, people started noticing that it seemed like the beach was increasing in size to the east of the DEW Line site (at the base of the spit), but

that the erosion of the bluff was continuing and the containment measures themselves were inundated and washing away.<sup>89</sup>

By 2007, continued erosion prompted emergency action and bulldozers were engaged in attempting to remove the eroding edge of the dump to a safer location. In 2008, a new two-cell landfill was created directly in front of the remaining module at the radar base in the space created when the other buildings had been demolished (fig. 39).



**Figure 39: BAR-Main Aug. 2008**<sup>90</sup>

Hazardous material in the existing landfill was supposed to be shipped south, one cell of the landfill was designated for low-level PCB-contaminated soil and debris, and the other cell was designated for non-hazardous waste. Reports indicate that this new site is about 1000 feet south of the bluff, but since the entire area is now covered with gravel and freshly bulldozed, it is difficult to see where the new landfill ends. Nora Jane Burns

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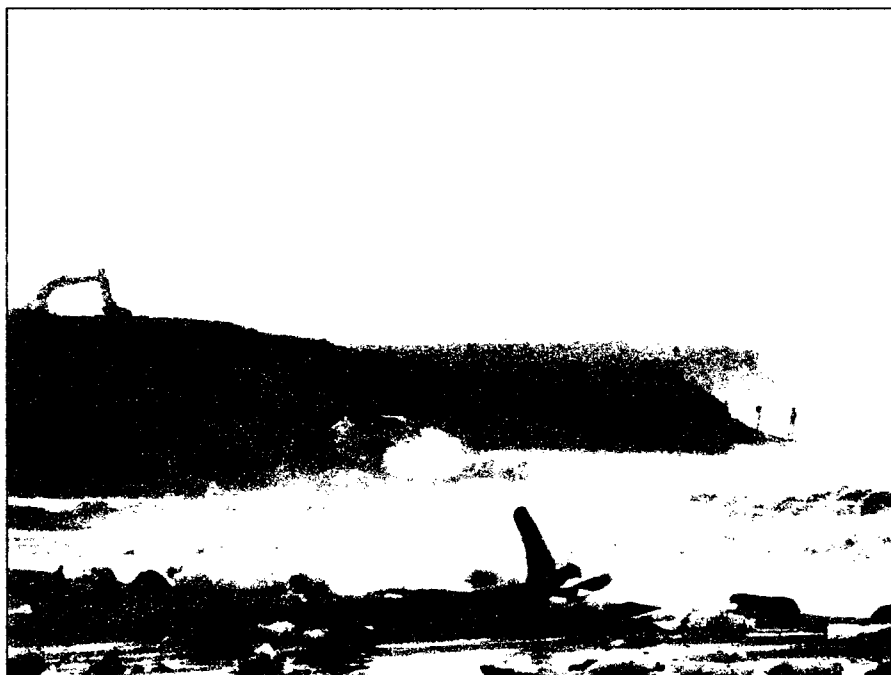
<sup>89</sup> “The Corps of Engineers tried to put those posts in the water, it is just a waste. And, I think, with them doing that, it changed our coastline, because, it, what they were hoping it would do is build beach right there, when in fact it changed the beach completely along the coast, I think. ‘Cause it is not building up there, but it is building up further to the east of us and I don’t think so much to the west of us.” – Carla Sims Kayotuk (May 29, 2009, Kaktovik).

<sup>90</sup> This image shows the new dump site in front of the radome and remaining buildings.

described this as “the dumbest place” they could move the dump. “And they say they’re gonna give that land back to the community and they put all the debris, that last building that was standing, they buried it in that place where they have it. ‘Cause we watched them” (Burns, July 31, 2008, Kaktovik). Walt Audi remarked that the dump would need to be moved again in 50 years, but upon reflection he decided that it probably would not be that long.

Carla Sims Kayotuk said that this dump relocation was not what Kaktovik asked for as a community. “We asked that everything be hauled out. [] But they started relocating the dump, without really even telling us” (Kayotuk, May 29, 2009, Kaktovik). Carla used to be on the native village council and, more recently, the city council, but said these organizations found out as the clean up was progressing that most of the material was just being relocated.

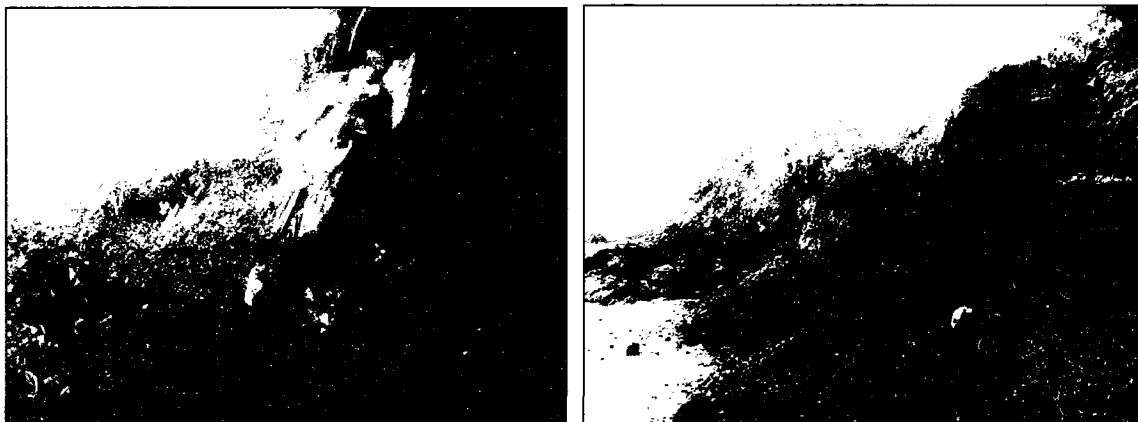
While fieldwork was being conducted in Kaktovik during the summer of 2008, a very strong west wind storm resulted in a massive storm surge that pounded the island with waves, causing massive erosion to the bluff in front of the DEW Line site. Because the ice pack has been so much further out in recent years, storms like this have a far greater fetch and larger waves build up. Throughout the storm, a bulldozer worked on the edge of the dump attempting to remove garbage from the eroding edge (fig. 39).



**Figure 40: Storm eroding Barter dump while removal is ongoing, Aug. 2008**

However, it seemed that these and emergency efforts in 2007 were not successful because garbage was clearly visible eroding into the water and, once the surge subsided, onto the beach. As Walt Audi described it, “they are spending lots of money! But they are moving the dump from here, where it’s falling in real faster – the dump is falling in faster than they are removing it. The waves are doing more” (Aug. 8, 2008, Kaktovik).

The storm surge also covered half of the runway on the spit with water, preventing airplanes from using it for a couple days. Isaac Akootchook, age 87, has seen a lot of change on Barter Island but said, “That is the first time I’ve seen that” (May 31, 2009, Kaktovik).



**Figure 41: The eroding bluff of the Barter Island dump, Aug. 2008**

Mary Ann Warden reported that when crews were working on that dump during the summer of 2008, polar bears were visiting the freshly disturbed garbage and digging up junk. “Yeah, contaminated food they ate. Ick.” Upon seeing pictures of the garbage at the eroding dump, Mary Ann Warden said, “Oh my God, so that is what the polar bears were getting into. [] Wow, oh my gosh, that is bad” (May 28, 2009, Kaktovik) (fig. 41).

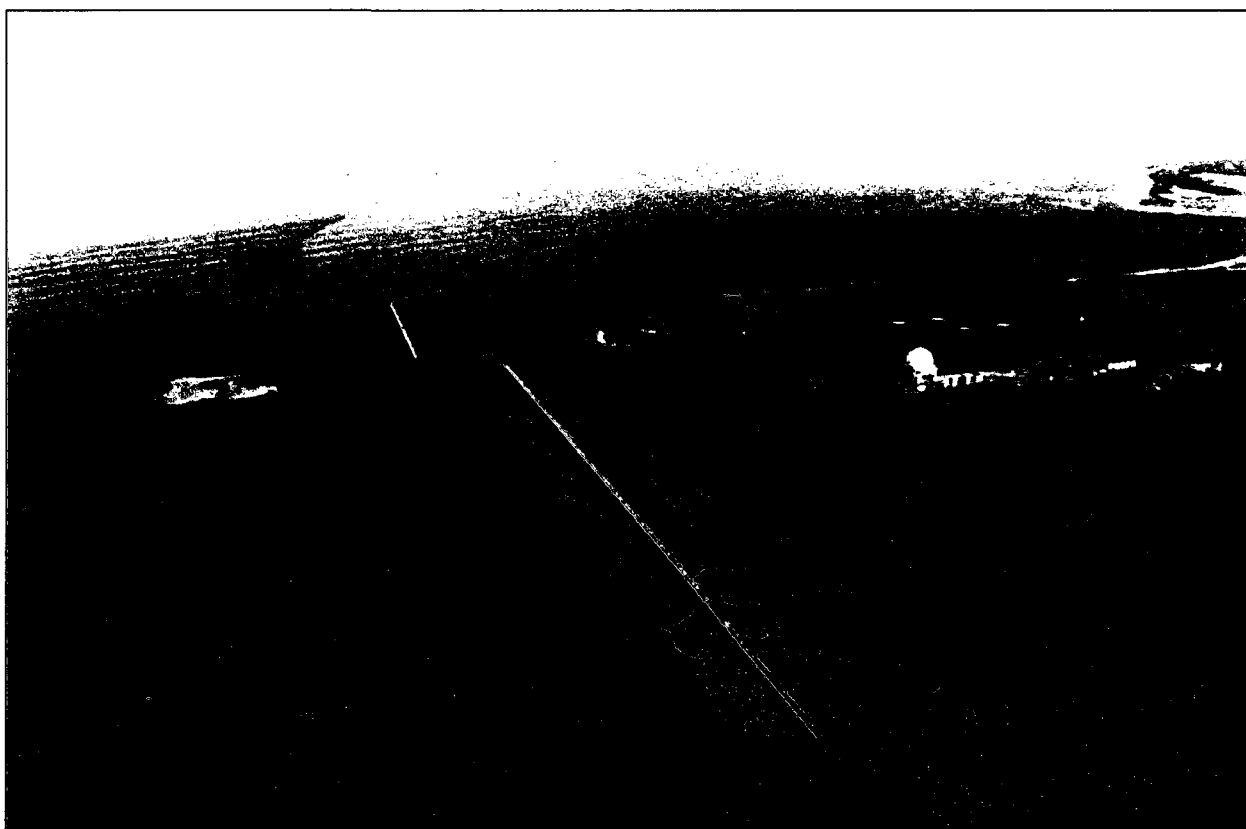


**Figures 42: Barter Dump erosion control measures following storm, Aug., 2008.**

Now that the steel erosion control measures are in the water instead of along the beach, there is a question of what to do with them (fig. 42). Walt Audi reported that the Air Force/Corp of Engineers plan was to cut the poles off at water level. He thought this was a terrible idea because the poles already present a navigation hazard, but at least they are visible the way they are.



The dump in front of BAR-Main is roughly bounded on the west side by a long snow fence that is also eroding over the bluff. Ice fences keep snow from drifting over roads and houses (and thus make the poorly insulated houses harder to heat). However, ice scientist and photographer Matt Nolan, who stages his Brooks Range glacier research project out of Kaktovik every summer, noticed that the snow fences have altered the insulation pattern on the tundra to the extent that they threaten to melt a straight line across it and create new drainage systems, thereby weakening the surrounding areas permafrost and causing more erosion. Worse, the ice fence on Barter runs from the coast back to Barter Island's fresh water lake (fig.43).

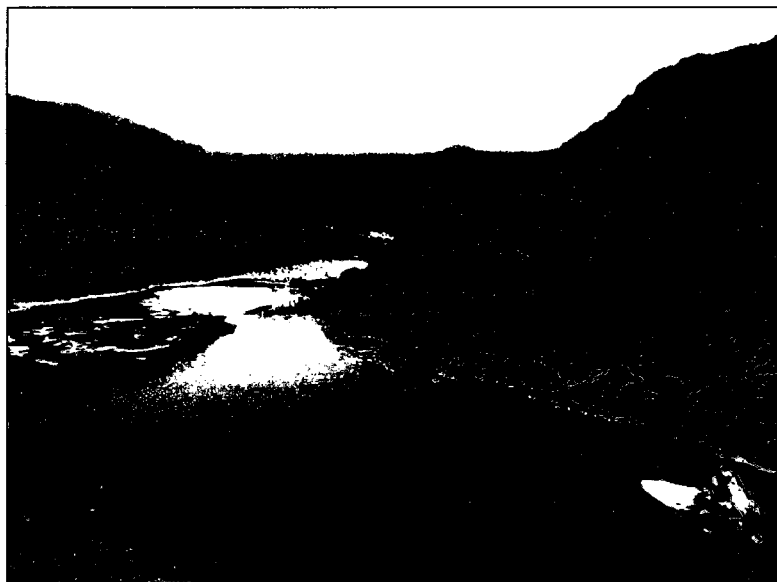


**Figure 43: "Impact of Snow Fence on Tundra." Photo by Matt Nolan<sup>91</sup>**

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<sup>91</sup> With his permission, this photo is taken from Dr. Nolan's website at <http://www.drmattnolan.org/photography/2010/sota/index.htm>, where there are also excellent photographs showing dramatic erosion of the bluff on Barter Island. As Nolan explained, "This snow fence in Kaktovik Alaska creates drifts on either side of the fence in an attempt to minimize similar drifting in the village itself. The thicker snow around the fence insulates the ground better, effectively warming it up, melting ice

On the east side, the dump is bounded by a gully widely known as the Contaminated Ditch (fig. 44) (since it constitutes an official contaminated site), which discharges into the Beaufort.



**Figure 44: ‘Contaminated Ditch’ on the east side BAR-Main’s dump (Aug. 2008)**

There are of course many people who, for various reasons, have no issue with the clean up process. As mentioned earlier, unclear understandings of toxic chemicals partly explains the opinion of some individuals. Elder Lillian Atkootchook of Barter, for example, reported that they cleaned up quite a bit and she wasn’t worried about it anymore. There used to be a lot more drums and metal, she said, but they picked most of them up and she thought they did a good job. She did not know if contamination got into the animals, but thought it could be. Other people can be described as somewhat apathetic, bordering on fatalistic. Alice Agiak concluded that the clean up process on Barter Island had been “pretty good,” although she did not believe that everything was cleaned. Alice also expressed that she did not care if the remaining structures at the site

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wedges, and creating new ecosystem dynamics. [] An unfortunate consequence of the snow fence seen here is the potential for a stream to form which will drain the large lake [] by incising into its bank and linking it with the ocean. This lake is Kaktovik’s water supply and is the only large lake on Barter Island suitable for this. It is not clear what the future holds for this water supply, but it is clear that both man and nature can conspire to change the landscape of permafrost terrain on time –scales that matter to all of us.”

stayed or were removed, and she did not care whether contaminants were left over. “Well, we’re all infected anyway,” she said (Agiak, May 31, 2009, Kaktovik).

Another type of reaction can be heard from a person like Chuck Ekak of Wainwright, who is determined to make the most out of the present and the future without dwelling on things in the past that cannot be changed. Asked how he thought a clean up of the Wainwright dump was going to proceed, given that almost the entire dump has been *in* the lagoon for decades, Chuck said, “Modern technology!” (Ekak, Sep. 2009, Wainwright).

Quite a few people consider it lucky that the contaminated sites in the Arctic have received as much attention as they have. Although Etok did not know a great deal about the remediation (he thought Barter was the only site left to be cleaned up), he was optimistic about the status of the sites both in terms of money made and by comparison to how much military waste has been cleaned up in other areas: “They’ve done a pretty fair job. I see the rest of the villages up here (in Alaska), it’s nowhere like it is up North. It’s the only spot where the government has served with some diligence: North Slope. [] They still haven’t cleaned up Fort Yukon. Or the mid-continental lines” (Edwardsen, April 14, 2009, Fairbanks). Etok thinks that the environmental damage done by the oil industry is far worse because oil companies acted freely, on greed alone, and with what he terms “corporate fascism” at play.

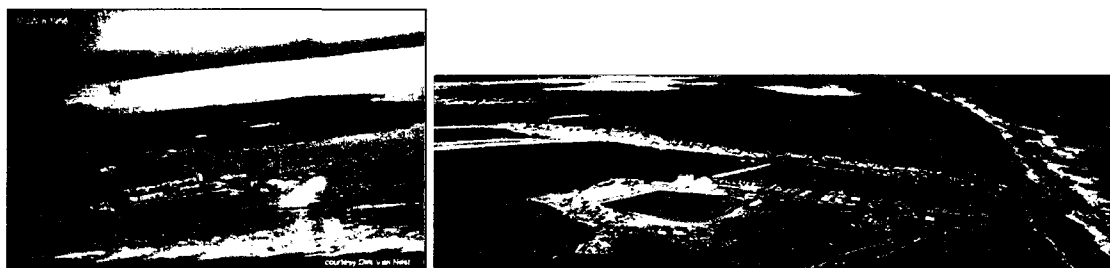
### ***Reuse***

If there was a subject upon which the informants for this project were in consensus, it was the issue of whether the remaining infrastructure should be removed completely or if there was any use for it. Robert Thompson, in particular, was suspicious that any documented history of the DEW Line would be used to make a case for keeping them: “I suppose a person should document it but I’m not real eager about them saving all the buildings for historic preservation. Save them if they need them – but to save them for posterity to look at for the next thousand years... They look like concentration camps or something. In the final stages they were all grey colored. I mean, they didn’t look

pretty...I can see saving historic buildings, but the DEW Line, I don't think of any of them as being in that category" (R. Thompson, May 5, 2009, Kaktovik).

Isaac Panik said that he would like to see the Wainwright site be removed. "I'd like to see it gone. We have early warning system that does the job. I'd like to see nothing left of it, nothing, with all their stuff. [] I don't want to see it be used again with all of its health hazards. It has to be like it wasn't there before" (Panik, Sep. 13, 2009, Wainwright).

For several reasons, Isaac may not get his wish. One reason is that remediation to restore these sites to their pre-DEW Line state is impossible. The other is that multinational oil companies are interested in using some of the sites to base future exploration and drilling operations. Shell Oil, for example, is exploring for off-shore drilling in the Chukchi Sea and would possibly like to use the DEW Line site (pads and roads) as the location for their Wainwright off-loading base. Cape Simpson, DEW Line Intermediate Site POW-A, has already been converted to serve as an oilfield services base for Ukpeagvik Iñupiat Corporation of Barrow (fig. 45). Point Lonely near Teshekpuk Lake, as mentioned above, will likely be leased for oil industry as well.



**Figure 45: Cape Simpson in 1956 and in recent years.<sup>92</sup>**

Even Sammy Lennie, who could be nostalgic after a fabulous time as a kid with the exciting industrial playgrounds he grew up on, wants the sites gone. "They should

<sup>92</sup> The first figure is courtesy of Larry Wilson's DEW Line website (<http://www.lswilson.ca/dewline.htm>) and the second image is courtesy of Ukpeagvik Iñupiat Corporation's webpage for its oilfield services branch, Umiaq: <http://www.ukpik.com/OilfieldSvc.htm>.

tear them down and clean them up and get everything out of there,” said Sammy. “Cause I know what's in them now” (Lennie, April 3, 2009, Fairbanks).

Isaac Akootchook worked at BAR-Main for 25 years and lives off of his DEW pension. He would like to see the DEW Line site gone because he would like his village to be able to use that land. Isaac explained that he felt this way because Barter Island was his people's home and where his family had chosen to live. He recounted that his uncles and aunties had been living at Demarcation, but the hunting and fishing there were not ideal. They had decided to seriously look around the region and had eventually decided on Barter Island. They chose the island site for Kaktovik based on its many advantages: it had a good freshwater lake, it was within easy traveling distance to the Brooks Range mountains, and there was excellent fishing in the lagoon.

Isaac said that he grew up on Barter and that his wife had grown up there and on Flaxman Island, and that when they got married they decided to move back to Barter Island. They were never informed that the DEW Line was going to come take up such a large amount of land on the small island, and Isaac reported that the Air Force simply began construction without a public hearing and without telling anyone. Considering whether the large hangar covering the original village of Kaktovik on the spit should be removed, Akootchook cracked a joke about moving back there. He was serious, however, when he said, “If they take it down I appreciate it. Because they use a big place down there – lotta homes” (May 31, 2009, Kaktovik). Although he said he does not usually talk with outsiders about his “plan” to expand Kaktovik up to the current radar site, Isaac thinks that the entire site should be removed. “[I]f they gonna tear it down, go. Because we need a road, we need a place more over here.” Akootchook thinks that if that area had been available, the people of Kaktovik would have selected that land as their allotments and moved there by now. If it ever is cleaned and released, “a lot of people are going to be on top of that gravel.” He thinks that it is possible that new generations of Kaktovik families would like to move back to Barter Island from Barrow, but they cannot because there is a housing shortage. Asked whether he can imagine any use for the DEW Line buildings, Isaac laughed and said, “We don't want to use that DEW Line. I've been there

already. Twenty-five years.” What Isaac wants is to “use that land!” (I. Akootchook, May 31, 2009, Kaktovik).

Akootchook was enthusiastic about a project that would tell the history of the DEW Line from the perspective of the Iñupiat because “it’s not right. A little bit is right but not all, the whole thing – what happening here.” Akootchook concluded, “DEW Line help us little bit, not too much. Not too much” (May 31, 2009, Kaktovik).

### ***Conclusion***

Both the useful infrastructure and the toxic waste of the DEW Line have shaped land and lives along the Arctic coast. It is also clear that, particularly in cases like the DEW Line, ethnographic research methods are particularly useful in this kind of study. From identifying known hotspots to overseeing clean up projects, the people who worked at the site, live on the land, and have the strongest incentive to restore the land for their own security are the ones whose knowledge should be at the forefront of environmental action and who should set the standards for clean up. Furthermore, this type of research specifically addresses the tendency of military activities to be lost in bureaucracy and secrecy.

Although Isaac Akootchook’s contention that the Air Force itself ought to come clean up the DEW Line is compelling, one might also consider that the military is the *last* institution that should be in charge of the clean up project. The Pentagon has a clear history of withholding information concerning environmental hazards, delaying action on known environmental problems, and resisting oversight from the EPA and other agencies (who in turn spend most of their energy fighting simply for the authority to enforce environmental laws on the military) (Shulman and Pollack 1989). Self-policing is a policy with inherent conflicts of interest, and the military has no incentive to obey the law when they account only to themselves. The Iñupiat and the Inuvialuit of the western Arctic, like people everywhere, deserve an environmental clean up of their land that has their health and wellbeing in focus as the incentive.

Paradoxically, it could well be that having the military abandon contaminated sites is the least dangerous way to deal with the toxins. A recent biological study on the

impacts of toxic chemicals on ocean life at abandoned World War II and Cold War military bases in the Aleutians found that fish caught near the bases are more contaminated than those caught further away. The scientific team tested for organochlorines, including PCBs that were used in the sites' electrical lubricants and pesticides. This type of data is critical for local subsistence communities, but it is equally important for residents to know that attempts to clean up contaminated sites can worsen the effects of contamination for years as chemicals are both stirred up and preserved in cold northern waters. Biologist Keith Miles of the U.S. Geological Survey noted that tumors in fish around Adak increased for years after a Superfund cleanup of a site there (Anchorage Daily News 2010).

Miles has found himself opposing Fish and Wildlife plans to clean up military sites in California because he believes that this solution can be worse than the problem, especially if the contaminants are contained several feet underground. He characterizes the issue as two evils: either a slow release of contaminants over eons from a contained site versus a pulse of organochlorines and other pollutants created by a clean up that re-releases them from the soil. He emphasizes that once the compounds are resuspended, they do not necessarily go away. Rather, many will be sequestered into the tissues of surrounding organisms. To determine which process is best for each site requires modeling of the hydrology, geology, soil characteristics, associated biological systems, climate and other factors. A main problem Miles sees is that continued monitoring would be critical for at least a decade after any clean up project, but this rarely happens in remote locations.

Miles' opinion is that if a community such as Kaktovik is faced with the situation of either living on top of a contaminated site or living through the clean up of that site, the best solution would be to have that community relocated to a more pristine living area of the residents' choice where the subsistence resources they depend on are less impacted. However, relocation is a contentious and emotionally fraught phenomenon with a particularly reprehensible history in the Arctic (Mikow 2010; Tester and Kulchyski 1994). As highlighted by anthropological research underway at the University

of Alaska Fairbanks on the current relocation processes of Alaskan coastal communities (Marino 2010), relocation is a totalizing phenomenon that can create a fundamental shift in the social fabric of a town – even under good conditions. Marino explains that one community leaves, another one is created, and a third exists ten years later. The legal definition and rights of people sometimes termed “Environmental Migrants” are problematic, particularly for potential migrants within one country (Marino 2010). Despite this and despite the fact that any talk of relocating the community of Kaktovik to date has been purely speculative, there does appear to be widespread support for moving.

Concerns over potential relocations create stress, and that stress could compound stress over the doubt and ambiguity regarding the possible contamination of one’s environment and the physical risks of exposure to toxic chemicals. Recent research on the social and psychological impact of contaminants in the Arctic indicates that such concerns are pernicious. The Inuit Tapiriit Kanatami organization (ITK), which represents Canadian Inuit, argued that communication about environmental contaminants between health officials and the Inuit was so poorly handled that it caused “extreme psychological distress” (Cone 2005). ITK researchers led a project<sup>93</sup> in the mid-1990s to gauge the success of efforts to inform residents of nine communities about contaminants. The report concluded that the most tangible and dangerous threat that toxic substances pose to Arctic people is fear:

*In every instance, there was a pervasive unease and anxiety about contaminants. Whether or not individuals are exposed to or actually ingesting injurious levels of contaminants, the threat alone leads to anxiety over risks to health, loss of familiar and staple food, loss of employment or activity, loss of confidence in the basic food source and the environment, and more generally a loss of control over one’s destiny and well-being (quoted in Cone 2005).*

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<sup>93</sup> 1995: Communicating about Contaminants in Country Food



The better one's understanding of the true nature of PCBs and endocrine-disrupting chemicals, the more one experiences uncertainty about whether any activity in any location is actually safe, or whether it is exposing one to greater risk. This uncertainty is a hallmark of military industrial activity around the globe: an insidious physical and mental threat at nearly every installation.

This chapter has only sufficient background scientific information to provide a context for understanding Inupiaq perspectives on DEW Line contamination. A strict compilation of the hard facts of DEW Line contamination and a reminder of the many disturbing dangers posed by toxic chemicals would have been more sobering. This chapter did not include statistics on how many hundreds of thousands of gallons of fuel have been spilled at nearly every site (NARL alone is responsible for nearly a million). It omitted any discussion of the dramatic issue of transboundary Arctic contaminants, biomagnification of toxins in the Arctic food chain, and graphic illustrations depicting the population-wide social impacts of the five-point drop in intelligence quotient associated with significant exposure in utero to endocrine-disrupting chemicals. It further omitted any comparisons to the much worse conditions at the scores of similar Russian bases on the other side of the mediterranean Arctic Ocean. A work covering that information and more would constitute a truly comprehensive toxicological study of Cold War Arctic militarization and is a critically valuable work that should be done.

Given the sheer volume and the extent of infiltration of DEW Line debris and infrastructure, it is not surprising that it shaped the physical environment of Arctic peoples in ways that brought about the perspectives portrayed in this chapter. However, even for people who are as closely connected to their environment as the Inuit, living in an arguably militarized landscape does not necessarily result in societal militarization. My opinion is that real social militarization is more likely in cases where the geographical militarization is subtler than it is on the Arctic coast. The military's impact on the physical environment in several of these communities is so significant that, despite how normal its 55-year long presence makes it, it is a regular reminder of environmental

injustice<sup>94</sup>. As such, frustrating feelings of powerlessness and anger at the insidious contamination and the disappointing bureaucratic process is often actively resisted by ignoring the whole affair as much as possible and by diminishing its influence through humor, sarcasm, derision, and other culturally popular methods of transcendence.

Transcendence also involves a communal refocusing onto family, whaling, hunting, and the beauty of the sea, ice and land. A Fairbanks social scientist who has worked on the North Slope for several decades theorizes that it was the reintroduction of bowhead whaling in the early 1960s that saved the spiritual soul and internal cohesion of Kaktovik, possibly giving them the cultural resilience to survive what he describes as a horrific relationship with the military (Pederson, pers. comm.). Such cohesion makes possible a tradition of refusing to afford the military any more power and influence than that which it can take by force.

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<sup>94</sup> Environmental justice can be understood as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people should bear a disproportionate share of the negative consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.”

## **Chapter Six: Conclusion: Militarization's Role in Shaping Communities and Consciousness in the Western Arctic**

### ***Introduction***

World War II and the Cold War transformed the geopolitical significance of the circumpolar North, and modern military activities have influenced society and the environment throughout the region at several scales. To discover how the processes of militarization have shaped small communities and indigenous peoples' lives, this project specifically examined both abrupt and long-term effects brought by the construction, operation, and decommissioning of the DEW Line radar sites in Inuit communities of the western Arctic. The rapidly developing study of militarization, particularly as it affects small and/or indigenous communities, has provided a conceptual framework for this analysis. Building upon the extant historical and anthropological research on the DEW Line and military activity in the Arctic in general, this study gathered detailed information on both physical and social legacies of the strategic defense industry as perceived and conveyed by Inupiat of the North Slope of Alaska and Inuvialuit residents of the McKenzie River Delta, while the perspectives of a few Euro-American DEW Liners contribute to a general understanding of the society created by the radar bases' personnel.

A central assumption among militarization scholars is that military activity shapes small communities by dominating their economy and controlling residents' notions about security and the military itself in myriad other ways. The preceding chapters have described the infiltration of the Arctic by the social and economic forces accompanying the DEW Line and the physical legacies of the radar sites themselves. This final section presents an analysis of militarization in communities of the western Arctic based on indigenous Arctic residents' perspectives and opinions on patriotism, the military, and national security, including how they perceive the DEW Line and other historical military activities in their region. Perspectives and feelings explored include the issue of whether

the DEW Line is in fact perceived as “the military” and what this might indicate regarding the acceptance of a militarized ‘normal.’ A related issue is differences between military industry and other industry, namely petroleum exploration and extraction. Nationalism can be a key aspect of militarization, and, as colonized indigenous people, many informants have clear-sighted and practical notions of patriotism and the benefits and disadvantages of their national citizenship. The acceptance of militaristic notions of security and how those have changed over time as well as alternative conceptions of rationality and security are also analyzed.

Comparing the impacts of the DEW Line in each town with those stemming from other historic military activities keenly illustrates the value of localized histories. As presented in the body of this dissertation, the research project discovered that the effects of the DEW Line were distinctive in each community. This finding was anticipated as other studies of militarization explicitly focus on specific localized impacts to gain an understanding of a broader history. Nevertheless, the degree of difference in otherwise very similar North Slope communities is surprising, particularly given the uniformity of the radar sites.

Variation between communities is due in large part to the specific geographical layout of each area, which has had widely varying impacts on local land use issues. When land use conflicts are more intensive, this affects the social acceptance of militarized ideologies. The construction of the DEW Line in remote regions of Canada resulted in the creation of new, permanent communities. Although the DEW Line in Alaska did not actually create new communities, military activity has dramatically shaped the composition of the population and fundamentally altered the history of towns on Alaska’s North Slope. Military activity brought Barrow to prominence and helped maintain that city’s status, and the presence of the DEW sites played a particularly significant role in the survival of two of the four communities on Alaska’s North Slope which are co-located with radar bases: Point Lay and Kaktovik.

Attitudes towards the military in the Arctic are strongly shaped by commonly held beliefs about cancer and contaminants. This concluding chapter summarizes critical

research on northwest Alaskan beliefs about cancer in order to explain locally held attitudes towards nuclear activity, in particular to clarify the legacies of Project Chariot, the Iodine experiments, nuclear power and nuclear weapons.

### ***Geeks and Geography***

This analysis is first grounded in a consideration of the typical impacts associated with radar bases and the relative size and the geography of each co-located base and community. Any analysis of the impact of the DEW Line sites must recognize that, of all the different kinds of manned military installations, an old and relatively remote defensive radar base is one of the least politically controversial and socially intrusive types. Bases are often understood as insuring security, and early warning radar bases can easily be understood as defensive and not a sign of aggressive militarism.

Just as no two communities of the western Arctic are alike, different types of military bases have significantly different impacts. Enloe notes that marine bases, for example, are known for creating more criminal behavior than other kinds of bases. Navy bases produce more episodic and thus visible social impacts, since ships dock and suddenly unload thousands of men and women looking for sex and alcohol. The DEW Line sites are Air Force bases, which are known to produce more toxins per square foot than Army bases (Enloe 2009).

The DEW Line's small radar bases were predominantly manned by civilian contractors, not enlisted military personnel. Moreover, a significant number of the civilians working for the military at DEW Line sites were radar technicians. A troop of what are fondly known as "geeks" (typically a more highly educated person and often a computer expert) can be expected to have a different type of social impact than a troop of trained soldiers, regardless of the branch of service. Unbeknownst to them, the indigenous residents of the western Arctic were joining specific other groups of people around the world who found themselves living in the shadow of radars: a type of militarization without soldiers, without active conflict, and with high levels of uncertainty regarding health impacts.

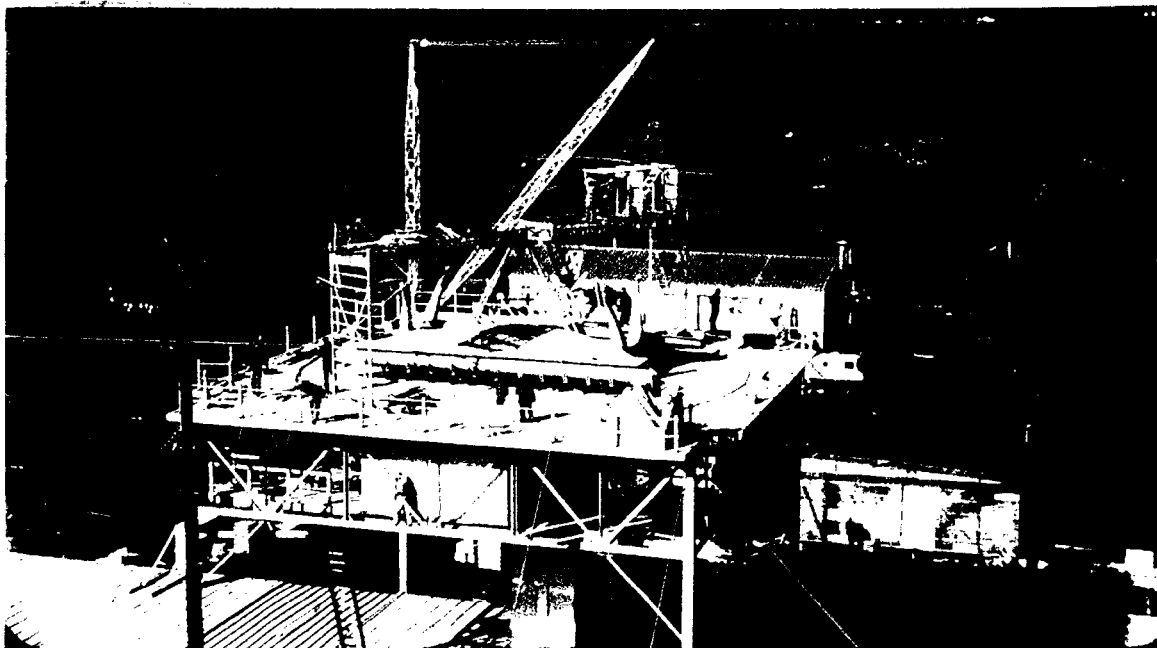
Another simple rule of thumb regarding military bases is that smaller sites have less impact. Relative to the size of an average military installation, most of the DEW line sites were small. Although construction of the sites brought thousands of crews north, once the bases settled into routine operation, the number of permanent employees varied, but was never high. Auxiliary Sites such as the ones at Point Lay, Wainwright, Lonely and Tuktoyaktuk usually had 40-60 employees until the 1980s when automation began to seriously reduce the number of people needed to operate the bases. The Intermediate sites, which operated from 1957 to 1963, had no more than five men working at them. Only the Main sites had significant numbers of people: Barter Island was the largest with up to 200 employees at its peak while POW-Main in Barrow, whose impacts are commingled with and largely indistinguishable from the co-located Naval Arctic Research Laboratory (NARL), never had as many people.

However, the size of a base is a poor method of gauging impact if the context is ignored. The DEW Line bases are in no way small relative to the size of the communities they have affected, and this illustrates a critical aspect of their impact on adjacent populations in the Arctic. Point Lay, for example, had only 30-40 residents when the Auxiliary DEW Line LIZ-2 site was built, thus construction workers and DEW Line personnel outnumbered residents. The almost 200 men stationed on Barter Island in the decades before automation easily outnumbered the population of Kaktovik (which was 66 people in 1957 and has since grown to approximately 325). By comparison, the several hundred residents of Tuktoyaktuk and Wainwright were never outnumbered by the personnel at the nearby DEW Line sites.

Another seemingly simplistic but critically important characteristic of militarization is that impact depends on a base's distance from a community. This is aptly demonstrated by the DEW Line: the difference between an "adjacent site" that is actually next door is extremely different than an adjacent site that is 1-2 miles away, which is in turn distinctly different from an adjacent site that is 5-6 miles away. Thus, in the western sector, the most heavily affected community is Kaktovik, a small community that shares a small island with a particularly large site. As Walt Audi (a Tanik DEW Liner who has

become a local community member) described, when the village was in its second location up on the bluff, the community and the base were physically intermingled. The most physically militarized places can have the least mentally militarized population, and by this measure, Kaktovik is the least mentally militarized DEW Line community. Furthermore, the town that has gained the most and suffered the least from the DEW Line in Alaska is Fairbanks, which experienced a pipeline-like boom in serving as a hub for DEW Line activities. I asked a few of my informants whether they were familiar with the term 'environmental racism:' no one had ever heard the term, but all understood it immediately.

Both Tuktoyaktuk (Tuk) and Point Lay have DEW sites that are 1-3 miles away on the other side of their main lagoon (Tuk is connected to the site by land). Despite the very different histories of these two places, the degree of separation between the community and base is comparable. The bases occupied important land that had been used by local residents, but the military did not commandeer the main village site: in the case of Point Lay, it was the nearby point of the mainland, the site where caribou would pass by, and adjacent to what is now the main village site (fig. 46). In the case of Tuk, the small peninsula had been a living site. This measure of distance offered residents a degree of separation from the base that Kaktovik did not have and the obvious physical impacts are less dominating. In both cases, however, the less obvious physical legacies that the DEW Line did create include contamination of the communities' principal lagoons.



**Figure 46: DEW Line site LIZ-2 under construction at Point Lay in 1954.<sup>95</sup>**

Wainwright's geography presents an interesting case. With the site located six miles inland from the coast and five miles across the main lagoon from the town, the community has experienced fewer direct social impacts and less significant land issues from the site itself. However, due to their heavy subsistence use of the river and the fact that the entirety of the garbage at that site has essentially been dumped into that lagoon, people who subsisted heavily on fish from the lagoon were likely exposed to persistent organic pollutants and other industrial contaminants over the course of several decades. The large DEW Line fuel tanks are located directly on the bluff just north of town, and the pipeline that ran the six miles overland from these tanks to the radar base was mentioned earlier in the context of local employment on the clean up. One resident

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<sup>95</sup> The original village of Point Lay and the new DEW Line fuel tanks can be seen across the Kasegaluk Lagoon on the barrier island. Photo by Harold (Hal) Phillips.



considered that the land under and around Wainwright was saturated with fuel from that pipeline. People from Wainwright who wanted to go to the bar at the site would walk or otherwise find a way to get there. The impacts were certainly significant, but there is a definite sense that the site is and has always been more distant and more distinct from Wainwright than is the case in Point Lay, Tuktoyaktuk, and certainly Kaktovik.

In addition to the many differences resulting from its large, multi-cultural and relatively cosmopolitan character, Barrow has also had a completely unique history of militarization. The geography of settlement patterns on the North Slope would be very different had the Naval Petroleum Reserve Four (PET 4) exploration camp been successfully established at Cape Simpson, as originally planned, instead of near Barrow. The PET 4 exploration camp, established in 1944, permitted the expansions that first included the Naval Arctic Research Laboratory (NARL) in 1947<sup>96</sup> and, in 1953, the construction headquarters for the Alaskan DEW Line sites and the POW-Main site near Barrow.

The PET 4 camp had an enormous impact on Barrow: the camp had a population of approximately 300 in the wintertime and additional personnel in the summertime. As PET 4 operations ceased, the camp became the headquarters for construction of the DEW Line sites in Alaska. Construction of Barrow's DEW Line site, POW-Main, essentially constituted a massive expansion of the extant military infrastructure. One factor that somewhat mitigated impacts to the community was that this expansion and the original military infrastructure were located approximately five miles outside of town, connected by the road that runs along the beach. Currently, many Barrow residents have cars and four-wheelers, so driving up and down the beach road past the military area is much more

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<sup>96</sup> "The Laboratory had been established in 1947 and it was established essentially as an add-on to the petroleum exploration program that was also being conducted by the Navy, so the Office of Naval Research prevailed on the Office of Naval Petroleum Reserves to provide them logistics for it at Barrow," – Max Brewer, director of NARL for 15 years, in a May, 2001 interview with Karen Brewster of the University of Alaska Fairbanks' Oral History Program. Brewer also explained how the Eisenhower administration decided they would have to close NARL since the lab's logistics base was disappearing. However, Brewer and other Laboratory researchers requested a significant amount of surplus equipment be transferred at no cost and ONR supported that, submitted other requests, and decided that the Laboratory could go it alone on a reduced budget. Therefore, the Laboratory did not close with the end of the oil exploration program. Military activity and surplus equipment thus contributed directly to this important arctic science research base which in turn supported the construction of the DEW Line and other subsequent military activity.

common than it was in the past. Moreover, the community's residents have never been outnumbered by the crews at NARL and the DEW Line (the population of Barrow has been at least 1,000 since the late 1950s). None of Barrow's extensive military activities led to an influx of actual soldiers. With NARL, Barrow's military personnel were largely scientists (slightly different types of geek specialists than the radician variety). Barrow residents enjoyed many military jobs in oil exploration from 1943-1953, filled positions as assistants and guides for the researchers at NARL for decades, ended up with a great deal of surplus equipment, and, with its strong native rights leadership, eventually instigated a Native takeover of ownership of the entire NARL facility and transfer of responsibility to the North Slope Borough and Ukpeagvik Iñupiat Corporation. Another significant benefit for Barrow has been the availability of inexpensive natural gas for heating, a resource that was originally exploited by the Navy for its PET 4 exploration camp there.

Barrow's size and strong leadership has been a source of strength and has diluted the influence of the military. Yet despite its social resilience and the wealth and infrastructure the village has gained, Barrow has paid a steep price environmentally for the military activities that made the town the regional hub of the North Slope. In addition to the beach erosion that may have been exacerbated by the military's gravel extraction, the Alaska Department of Environmental Conservation (2010a) reports that there are significant contamination problems at several NARL, PET 4, and POW-Main DEW Line sites around Barrow.

Several geographical aspects of the DEW Line, therefore, influenced the degree to which residents were affected by the bases. Kaktovik would most likely not have survived as a town if the military had not provided an economy at a time when people, accustomed to store goods and increasingly obliged to put their children in school, were moving to Canada or Barrow. On a fundamental level, the very existence of the

communities of Point Lay and Kaktovik would have been in question if DEW Line sites had not been built next to them.<sup>97</sup>

Most interviewees saw little reason to explore hypothetical questions about what their communities would be like had the DEW Line site never been built nearby. George Agnasagga is an exception. When he thinks about it, he wishes the DEW Line had never come to Point Lay because it is on the point of the mainland. It was at that spot that the caribou would come right down to the lagoon: “A person could get a year’s supply of caribou. Every year. No more – the airport and all the DEW Line buildings are in the way” (Agnasagga, Sep. 13, 2009, Wainwright). George Agnasagga reinforced the notion that the complete lack of consultation with the community was a significant issue:

*“They could have built that DEW Line somewhere else. [] If they had come to the village and asked the leaders at the time we could have showed them a good site just a couple miles away, but it wouldn’t affect the village”* (Agnasagga, Sep. 13, 2009, Wainwright).

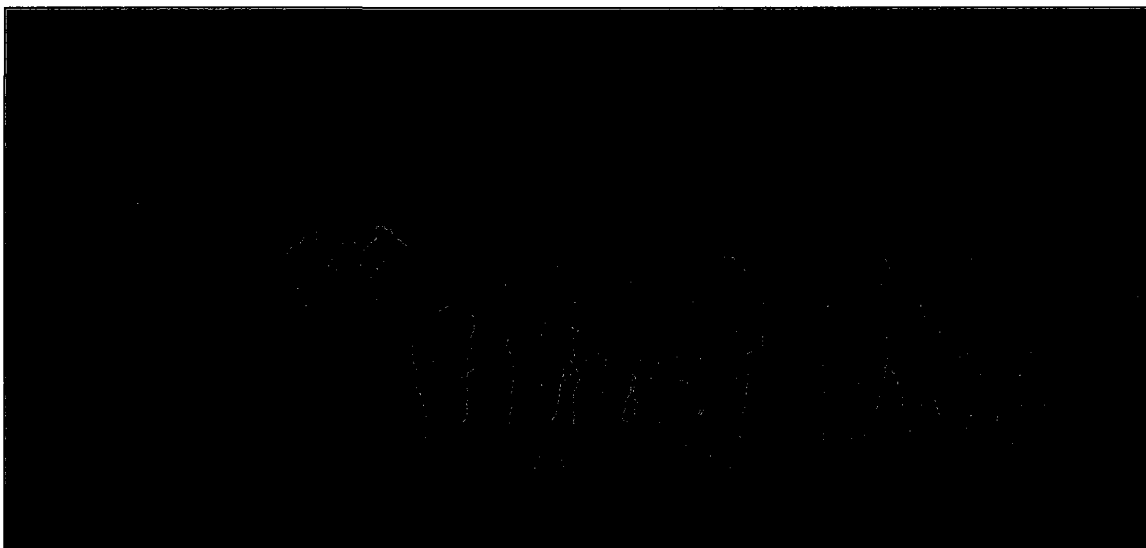
The modern history of Point Lay is inexorably tied to the DEW Line station. The village, in its older location on a barrier island, was in decline when the base was built. Some elders are convinced that the DEW Line was to blame for the continued decline, with alcohol destroying the social harmony of the town leading to people moving away and the school closing. For over ten years, the only inhabitants of Point Lay were Dorcas and Warren Neakok, who stayed in part because Warren worked at the DEW Line site. After the North Slope Borough was formed in the early 1970s, the formation of a new Point Lay village was supported in part because of the infrastructure that already existed there (the airstrip, in particular).

These factors – the type of base, its relative size, and its geographical layout – are critical characteristics of DEW Line sites that shaped the impacts they had. Another

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<sup>97</sup> The Alaskan community that gained the most and gave up the least with the construction of the DEW Line was Fairbanks. Much of the regular freight came through Fairbanks, and many DEW Liners came to Fairbanks during their time off and spent significant amounts of their earnings (even if a solid percentage of that was on prostitutes and liquor). Some longtime Fairbanks business families thought that the DEW Line boom was more dramatic for Fairbanks than the later impact of the trans-Alaska pipeline (Ferguson, 2008).

truism regarding bases is that more recently built ones attract more attention than long-standing ones, which may disappear into a normalized background. The DEW Line corroborates this particularly well, because the sites go largely unnoticed by everyone who has lived next to them during the past half century despite their dramatic contrast to the surrounding landscape (fig. 47).



**Figure 47: Barrow Whalers football game with POW-Main in background, Oct. 2008**

### ***Perception of the DEW Line, the Military, and Nationalism***

An important issue that came to light during this research concerned whether people regarded the DEW Line radar sites as military bases and if they did, why? This subject aptly illustrates the influence of an individual's personal history. A general trend observed was that the more direct experience with the military a person had (whether in the service or as a civilian contractor), the less likely they were to perceive the DEW Line as military. This phenomenon is interesting on several counts, first because it can be considered as further evidence for militarization theories that assert that people become less able to recognize militarism the further entrenched in it they are. It also reinforces the widespread understanding of 'military' as narrowly defined by actions or people directly involved in combat and wartime efforts. Furthermore, it highlights one of the main

reasons that men are more likely to be militarized than women: men have far more opportunities and experience in both war and the modern workforce. Many men on the North Slope have, at least at some point, worked for the DEW Line during the past half-century. Until the late 1970s, the DEW Line was exclusively a man's world - women never worked there until recently when some have gotten jobs on DEW Line clean up projects.

The southern DEW Liners who had worked as civilian contractors were the least likely to perceive the radar sites as military. Hal Phillips explained that even radicians with "crypto" clearance<sup>98</sup> who tracked potential enemy targets (possibly armed with nuclear weapons and headed for the U.S.) did not think that DEW Line work felt like military activity. Radicians felt *linked* to the military in that they were sitting in front of a console and monitoring all radar information. Their focus was on the use of the technology. As civilians, radicians never initiated a radio conversation and they never knew anything more about a situation than was necessary. The DEW Line did not feel like the military because there were no military pressures such as chain of command rules. In fact, the radicians and most DEW Line employees very rarely saw military personnel, and there were *never* military personnel assigned to Intermediate sites. Hal worked on the DEW Line in the days before the White Alice Communications System were installed, when radicians at Auxiliary sites reported to Air Force personnel stationed at Main sites, who would then forward the communication through Anchorage to NORAD. "It absolutely seemed like a civilian operation," said Hal (Phillips, Dec. 13, 2006, Texas City, Texas). Even at the Main sites where there were usually a few military officers, it made absolutely no difference to the Federal Electric men.

Harry Merriman worked various jobs at the Barter Island site during the 1960s, later became a permanent employee on the naval supply of DEW Sites across Alaska, and eventually worked at the DEW Line ice cap sites in Greenland. Harry had grown up and attended primary and high school on Eielson Air Force base outside of Fairbanks. Before working on the DEW Line, he worked at the Ballistic Missile Early Warning (BMEW)

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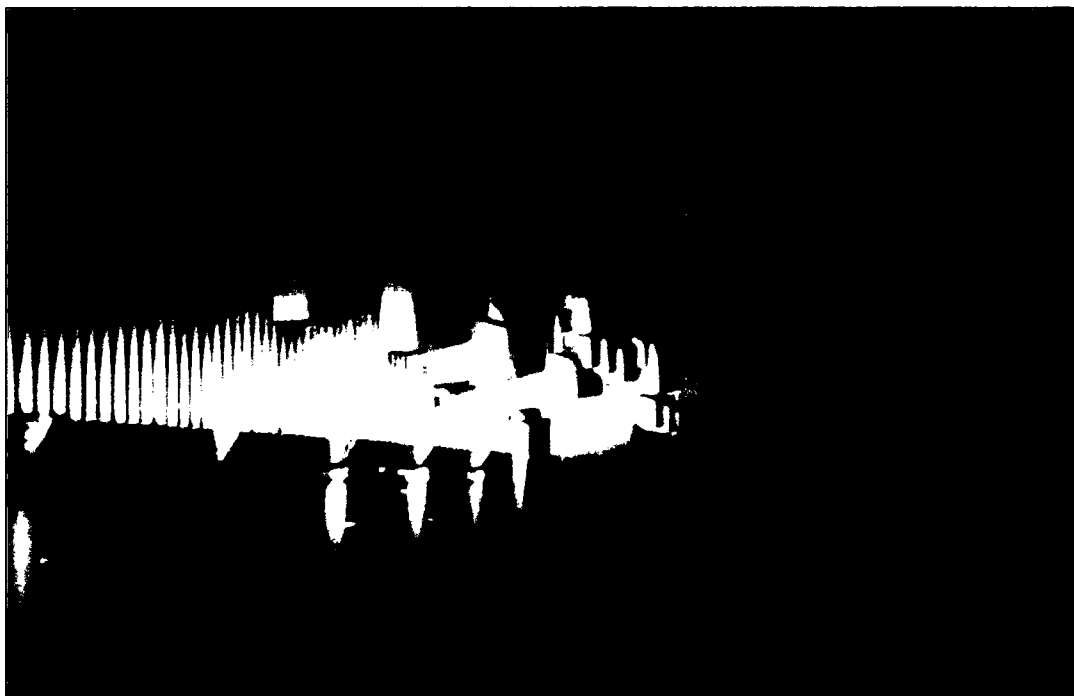
<sup>98</sup> When the sites would receive classified messages from military personnel, crypto technicians on hand would decode it.

radar installation in Clear, Alaska. Harry asserted that, because of this background, he absolutely knew what constituted ‘military,’ and both Eielson and Clear were definitely the military. By comparison, according to Harry, the DEW Line sites did not seem military to any degree. The radar bases were military installations, Harry realized, and he does consider that the DEW Line constituted the militarization of the Arctic, but he explained that it still did not *feel* military. The main reason, in his opinion, was that the entire endeavor was contracted out. Harry remembers no more than one or two military officers being stationed at Barter Island and, upon reflection, he was not even sure why they had to be there. He surmised that it was to pass on encrypted information to higher ups who, to his knowledge, were the only military officers in the entire Alaskan sector. This illustrates the fact that the number of military personnel on the DEW Line, always small, decreased over the years. The only time high-level military brass would visit the DEW Line sites was when a general would come through during an “ArcticStars” inspection across the line. Along with many other DEW Liners, Harry’s principal memory about the ArcticStars tours concerned the huge parties that inevitably erupted as soon as the general’s plane was taxiing for takeoff.

After considering this subject, Harry decided that, more than anything, working on the DEW Line felt like living on a ship: “You worked with a group of people enclosed together, you took care of each other and you sank or swam together” (Merriman, March 3, 2009, Fairbanks). The way the sites were physically constructed – building trains raised off the ground, snow and wind blowing underneath them – made them seem even more ship-like (fig. 48). All the latrines were marine toilets with pumps and pedals and each room had a vintage naval ash tray stand. “They just seemed like ships of the Arctic,” Harry concluded<sup>99</sup>(Merriman, March 3, 2009, Fairbanks).

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<sup>99</sup> Harry joked that, compared to the DEW Line sites in Alaska and Canada which felt like ships of the Arctic, the sites on the ice cap in Greenland felt like space ships.



**Figure 48: BAR-Main housing train, Aug. 2005**

While Hal Phillips maintained that it was a totally civilian job, he acknowledged that since the DEW Line was funded by the military, the Natives saw it as military. Harry Merriman, perhaps because of his greater experience with the military or due to the fact that he worked on the Line in the 1960s, did not believe that the Iñupiat saw the DEW Line as military. Walt Audi, who had served in the military before working on the DEW Line, completely dismissed the notion that the DEW Line was military and was certain that locals differentiated between contractors and actual military personnel.

Many local Iñupiat do make the distinction between military personnel and civilian contractors, particularly people who have worked at the site as civilian contractors and/or have had military experience. Ben Linn of Kaktovik thought that the DEW Line did not play a role in shaping his perception of the military because civilian contractors largely ran it. Alice Agiak did not think of DEW Liners as military personnel and did not think it mattered either way. Other people's views on this have changed over time: Isaac Panik said that when he was young, he did not think about the DEW Liners'

job that much: “They had a job to do and they did it and that job was for Uncle Sam...I thought they protected us from the Russians. The Army was supposed to be our friend...I thought all those guys were military, but as I got older, I realized that they were contractors, specialists” (Panik, Sep. 13, 2009, Wainwright).

Growing up at several sites in Canada’s western Arctic, Sammy Lennie thought of the sites as military because security was tight and there were signs everywhere saying “Unauthorized Personnel Prohibited.” Sammy also saw the bases as military because Army planes used to arrive that would quickly hide in the hangar. The site seemed military to Sammy for what it was: “It was a radar system and to us, a radar system was like, top secret, James Bond. And we used to watch all those movies, James Bond and ‘A Man Called Flint’”<sup>100</sup> (Lennie, April 3, 2009, Fairbanks).

Robert Thompson, comparing the DEW Line to his experience in the military and in Vietnam, concluded that he never really thought of the DEW Line as a military site. Like many people, he connects military and militarization with a military capacity for fighting or offensive operations and sees the DEW Line as almost completely unrelated to that.

Thompson’s wife of over 40 years, however, had a completely different perception of the DEW Line. Jane Thompson had the same reaction most people did when they were asked whether they thought the DEW Line was military. After a look that expressed how ridiculous she found that question, Jane asked, “Who the hell else would it be?” (J. Thompson, Aug. 2005, Kaktovik). Jane is not unfamiliar with civilian contractors since her father Isaac Akootchook worked at the site for decades, and she is not unfamiliar with “true” military since she lived with Robert after Vietnam when he was decompressing from combat.

Carla Sims Kayotuk, whose father was a tanik civilian DEW Line employee, also did not think the distinction between contractor and DEW Line worker was important:

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<sup>100</sup> It is regrettable that this research project did not include an adequate amount of Canadian interviewees to indicate whether indigenous Canadian are more likely to perceive the DEW Line as military. My assumption is that they do, especially because the DEW Line was largely an American-led (i.e. foreign military) undertaking, but not that indigenous Canadian attitudes are any more or less negative.



“Yeah, well, that’s how everybody saw those people. They were military”<sup>101</sup> (Kayotuk, May 29, 2009, Kaktovik). Ron Brower of Barrow also considered DEW Liners to be “military people” despite the fact that they were civilians. “Oh, yeah. They belong to the military. They are owned by them. They don’t work for us. They work for the military” (R. Brower, Dec. 11, 2007, Fairbanks). After reflecting on the fact that many DEW Liners and some other Iñupiat did not feel that the sites were military, Ron Brower replied, “I beg to differ with that thought...To us, all the people working at the DEW Line, because of the nature of the outpost, were considered military personnel. Whether they are contractors or not” (Dec. 11, 2007, Fairbanks). Nora Jane Burns of Kaktovik, whose grandfather worked at BAR-Main, felt similarly. “Just because they sublease, you’re still working for the military. There’s two sides to every story” (Burns May 27, 2009).

A negative perception of DEW Line sites was not necessarily connected to a perception of the bases as military. Etok, in particular, has had a significant fondness for the DEW Line and NARL (in Barrow) since childhood and he certainly views the DEW Line as military. Iñupiat and Inuvialuit interviewees recognize several differences between military industry and other industries, principally oil and other resource extraction activities, that have also had an impact in the North. Isaac Panik of Wainwright said that national security activity was different than resource extraction because, “back then the military had unlimited resources and were given prerogatives to go beyond the boundaries” (Panik, Sep. 13, 2009, Wainwright). One Kaktovik resident concluded that the only real difference is that the oil companies come and “kiss our asses” before they do whatever they want, while the military just does whatever they want without even asking anybody, much less offering sweet enticements.

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<sup>101</sup> Possibly more so in the early years, some Arctic residents recognized military hierarchy. Mary Ann Warden remembers that her father would only allow captains and lieutenants to come to the village because they were leaders that he trusted and with whom he was willing to negotiate. This rule was instated, Mary Ann Warden said, after some DEW Liners stole a large amount of fox furs from the Native store. Mary Ann’s father went to the station chief to report the robbery and – because there were no planes and nowhere to hide the furs – the thieves were caught. She assumed that the station chief was a military officer, which was not the case, but is further evidence that women are more likely to perceive the DEW Line as military.

In the area around Tuktoyaktuk on the east side of the McKenzie River delta, the DEW Line had always been overshadowed by extensive oil exploration, according to Sammy Lennie. “With the oil company you had roads all over the place. [W]hen you flew in to Tuk, lights like stars in the sky, that’s how many oil camps there were back then”<sup>102</sup> (Lennie, April 3, 2009, Fairbanks).

In comparing Kaktovik’s situation with the military to Barrow’s, Carla Sims Kayotuk thought that Barrow’s military activity was more scientific and because of that had had impacts that were less connected with sickness. Any type of industry would have its own particular impacts, she conceded, but because it was the military in Kaktovik, the primary impacts were higher alcohol consumption rates and disease due to contamination.

Because the DEW Line sites were military installations and because the sites had several immediate impacts on adjacent communities, an easy assumption would be that people (or at least people who perceived the DEW Line as military) formulated their perceptions of the military at least partly based on their experiences with the radar system. No one interviewed for this project thought that this was the case, and there are several interesting factors surrounding this issue. In accordance with militarization theory, much of this is due to the fact that people equate ‘military’ with wartime and combat troops, meaning that all other aspects of preparation for war and defense, especially during peacetime, are understood as normal government business (Lutz 2001).

Although they did not believe that the DEW Line shaped their perception of the military, many individuals indicated that the opportunity to watch movies at the DEW Line sites was one of the best things about the radar bases. Moreover, many individuals indicated that their perception of the military was based much more on movies and, later, on television than it was on any actually military activity in the Arctic. Sammy Lennie recognized the DEW Line site as military because he saw radar bases depicted in the

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<sup>102</sup> I have heard elder Barrow residents say almost the exact same thing about exploration in PET 4 from the mid-1940s to 1953.

James Bond and other Cold War spy movies he watched at the DEW Line site. In Point Lay, James Tazruk's main reason for going to the DEW Line site was to watch movies and he had no doubt that his ideas about the military were more informed by the films than by the base in which he watched them. Bruce Iglangasak described being exposed to a great deal of Cold War propaganda via the movies he saw at the sites and said that the films entertained people with the notion that they were playing a part in some international intrigue. Some of the most powerful militarizing influences created by the DEW Line, therefore, were the movies that the bases made available.

There is every indication that indigenous Arctic residents, like many U.S. citizens, have come to perceive patriotism as support of the military and U.S. foreign policy. Through media like the movies shown at DEW Line sites, the U.S. propaganda campaign reached the Arctic periphery of the country during the Cold War. Nationalist propaganda of the era attempted to indoctrinate people with anti-communism and fear of the bomb while extolling notions of the nuclear family as the patriotic front line of civil defense (McEnaney 2000). The same security posture that resulted in the destruction of sod houses and ice cellars in the Arctic was encouraging families in the rest of the country to build bomb shelters – safe subterranean dwellings with a secure supply of food.

Perhaps due in part to his Canadian perspective or the Cold War era in which he wrote, McMahan's estimation (1988) was that Alaskan Iñupiat are American nationalists. My research found that that assessment oversimplifies the complex situation involved with indigenous Americans' feelings on the State, which do not lend themselves to generalizations. Just as most people interviewed for this research did not feel that the DEW Line sites shaped their ideas about the military, neither did most feel that bases significantly affected their level of patriotism. When discussing the issue, many people (especially non-elders) relegated patriotism to a low level of importance. Several people compared their situation to that of Russian citizens and expressed that whatever unfortunate things may have occurred to them and their homeland under U.S. rule, *at least they were not Russian*. All interviewees seemed acutely aware that things were far more difficult for indigenous people who had happened to be colonized by the Russians,

they were particularly empathetic to the plight of those indigenous groups, and they considered that such a fate had not always been a distant possibility for them.

Etok considers that the original sale of Alaska was illegal and illegitimate and emphasizes that the Iñupiat have never lost a battle or surrendered their land. Regardless of the historical circumstances, the Iñupiat had become U.S. citizens and, as such, Etok had no dispute with PET 4, the ATG, the DEW Line and NARL. “Yeah, well, when your nation is distressed, you gotta come to the aid,” said Etok, who also pointed out that Alaska Natives have been fighting for the U.S. military since the Spanish American war<sup>103</sup> (Edwardsen, April 14, 2009, Fairbanks).

Any discussion of patriotism made Robert Thompson anxious to ensure that no study of the DEW Line would ever portray the story of the forced relocations of the Kaktovikmiut as a patriotic sacrifice. He was quite certain that no one ever rationalized the moves as “doing their part for the national defense.”<sup>104</sup> Thompson expressed loyalty to country alongside the common sentiment regarding Russia and skepticism about the purchase of Alaska:

*“I’d rather be an American citizen than a Russian citizen at this point in time, but actually the Russians were never here, so the legality of United States owning this part of Alaska is still in question by some people. The Russians never had the right to sell us. I know none of my ancestors never said, ‘Well, yeah, I want to be sold to the America,’ but*

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<sup>103</sup> Etok asserted that Inupiaq people did not see the DEW Line as an invasion of their homeland because they were patriotic, had a “willing participation,” and were not the victims of the government. He dismissed the treatment of the Kaktovikmiut, whom he faults for not standing up and resisting the treatment they received. In his opinion, they were rendered *overly* patriotic and passive due to “brainwashing” by the Presbyterian Church (Edwardsen, April 14, 2009, Fairbanks).

<sup>104</sup> “I don’t think there’s anybody saying, ‘Well, we’ll do our part and serve our country by letting people bulldoze our houses in,’ and this sort of thing. I don’t think anybody ever gave consent, it was just one of those kind of things that the dominant society did to us, when they came in and nearly annihilated the whales - local people didn’t have control over that, you better get out of the way or you are going to get killed. Literally. That’s what happened in the Lower 48 - put everyone on reservations. Submit or die. I don’t know if they ever put it that way but that’s probably what would have happened if anybody had tried to stop the whalers getting their oil. It never got tested, but that’s what happened in the rest of the U.S.” – (R. Thompson, May 5, 2009, Kaktovik).

*somebody did that at some time. But all in all, I was in the military, did my service for my country, so to speak*" (Thompson, May 5, 2009, Kaktovik).

Unsurprisingly, many people had been patriotic in their youth and grew skeptical during recent decades. Isaac Panik joined the military quickly after high school, concealing a back injury from high school to qualify. "I was very patriotic. My father and grandfather both served Uncle Sam, I wanted to be part of that" (Panik, Sep. 13, 2009, Wainwright). Isaac had really liked the people at the Wainwright DEW Line site when he had the chance to visit there, finding them very open and very kind. The military provided ease of mind and made him feel safe. The Cold War was perceived as a very real threat and he was taught that the Russians were dangerous. Now, this is an aggravating subject for him and he suffers from headaches when he thinks about it. It bothers him he is not able to be patriotic like his father, but the more he looks into it, the more questions he has. He now thinks that he was "brainwashed" at Fort Benning and has researched the military's actions (locally and globally) trying to reconcile what he thinks now with the way he was raised and with his community's attitudes. "The more I look into the question, my trust with the military has changed a lot," he said. While his sentiments are not uncommon, Isaac, like many of this project's informants, is particularly outspoken and opinionated. His experience indicates that he has had to contend with an entrenched reluctance to criticize the military. "Yeah, you get a headache. All this stuff, you know, you try to talk to a regular person, they think you are crazy" (Panik, Sep. 13, 2009, Wainwright).

There are many indications that people are currently more openly skeptical about patriotism and the military than they were during the Cold War, and many are very candid that Inupiaq participation in military institutions is based purely on economic reasoning. Some people ascribed mistrust of the military to their entire community, while other interviewees/individuals (especially elderly men) claimed that everyone in town was very patriotic. In Wainwright, Elder Glenn Shoula recalled that when the National Guard first formed, every man in town was in it. Over time, interest dissipated and the

Guard disbanded. Glenn did not know why and either felt that it was unfortunate that younger people were unpatriotic or that it was foolish that they were passing up a steady source of income (or both). Wainwright elder Rossman Peetook tries to convince young people to join the National Guard or the military because someday they will need the money – the checks he receives now for his past service are of great assistance.

Many women said that the older generations – especially those working at the DEW Line - were more patriotic than younger ones. As Nora Jane Burns remembered, “my grandpa, whenever he got a little tipsy, he would talk about [it]. I think they were brainwashing them about communists” (Burns July 31, 2008). Nora Jane claimed that high levels of participation in the military and patriotism stopped with her generation, evidenced by the fact that none of her classmates joined the army. She giggled in explaining that the National Guard finally tore down the armory in Kaktovik because it could not recruit any more villagers. Alice Agiak used to be very proud of the National Guard in Kaktovik, but television, education, and the Vietnam War changed that: “War. You see it on TV. Ridiculous. I don’t believe in them anymore. Not anymore” (Agiak, May 31, 2009, Kaktovik). Nora Jane also believed that the key reasons people became less militaristic were television and education, further corroborating the notion that militarization itself contributed to the importation of socially transformative forces that were often used to resist militarization.

The regional military history of the western Arctic, and particularly the experience with the Alaska Territorial Guard, has also contributed to current skepticism of the military. As described, many Inupiat had a history with the military before the Cold War. Hundreds of Inupiaq and Yupik men serve in World War II, while many more worked building airfields and pipelines and operating machinery. Coastal residents had been justifiably fearful of further attacks on Alaska, and almost every single man and several women enlisted in the Alaska Territorial Guard. ATG members were highly valued for their vigilance, sharp-shooting abilities and knowledge of the land and sea during World War II and the Korean war, and ATG leaders credited the ATG with challenging institutionalized racism in the state, aiding the passage of the

Nondiscrimination Act of 1945, and playing a role in the formation of the Alaska Federation of Natives. In stark contrast, Cold War military activities replaced Natives with machines as defenders of the coastline and otherwise actively disenfranchised them. Instead of depending on Inuit to defend their homeland *for* the nation, the military seized their land and trespassed them from it. Sharpshooters and local experts were no longer needed, only wage laborers and a little help locating fresh water sources. One interviewee said that the DEW Line made him become a leader– not because it was empowering but because he was so angry and felt forced to fight for the rights of his people.

MaryAnn Warden characterized the U.S. as a foreign power to the Iñupiat people and explained the extreme difficulty colonized people have pulling away from what she calls “their own country” when they don’t have their own power, military or otherwise. “They still depend on the U.S. to defend our country, but – what price?” she asked. The Iñupiat, according to MaryAnn, are in a situation where they depend on the U.S. military to protect their country, but she qualifies that “it is not the same as freedom.” “[T]hey have no power to do anything with the military- [] you don’t have a power over it and it’s a military world” (Warden, May 28, 2009, Kaktovik). According to MaryAnn, Iñupiat only participate in the military for the jobs and if people are hesitant to speak poorly of the military it is because they are dependent on it, not because they are patriotic. Bruce Inglangasak corroborates this view on Native enlistment rates: “I think they are just doing it for the money...[T]he jobless and the hopeless are the ones that are probably getting picked” (Inglangasuk, May 24, 2009, Kaktovik).

Predictably, negative feelings associated with the DEW Line correspond with the obvious and perceived negative impacts of the bases on a particular community. People certainly enjoyed and exploited the positive things that the DEW Line brought, which are the more civilian aspects of the DEW Line (individuals, paychecks, movies). The negative aspects of the DEW Line are associated with the military: the commandeering of land and the ability to circumvent laws and responsibilities for social and environmental damage.

### ***Circumpolar Nuclear-Free Movement***

Despite the extensive and pervasive contamination resulting from DEW Line sites, local and global histories, combined with environmental conditions and a subsistence diet based largely on caribou, have resulted in a North Slope-wide opposition to anything nuclear that far surpasses any issues with the DEW Line. Any general anti-militaristic sentiment that does exist on the North Slope is much strengthened by a widespread and completely socially acceptable anti-nuclearism.

While the people of Point Hope may have been happy with the military while anthropologist James VanStone was living there in 1956-57, that sentiment was largely reversed in subsequent years. In 1959, Project Chariot – the Atomic Energy Commission’s plan to construct a large harbor near Point Hope by detonating several underground thermonuclear bombs - inspired an unprecedented unified opposition of Iñupiat, scientists, churches, and the growing anti-nuclear movement. The plan was eventually dropped.

In 1992, the people of Point Hope revisited the Project Chariot controversy when author Dan O’Neill made public documents that he had uncovered while researching the Atomic Energy Commission’s history in Alaska. O’Neill had discovered that before abandoning the Chariot camp, government scientists had buried nuclear waste near the site as part of an experiment. When this news hit, the story ran in papers all over the world and shock waves rippled through the Iñupiaq communities of northwest Alaska. The headlines in the Tundra Times read: “Atomic Arrogance: Fear, Anger Run Deep in Point Hope” (O’Neill 1994: 280).

The release of this news and O’Neill’s book in 1994 coincided with an investigative report, commissioned by the North Slope Borough, into the Iodine 131 experiments that were performed by doctors with the Arctic Aeromedical Laboratory. Legal action was taken that resulted in compensation to many of the individuals experimented upon, but this was not seen as commensurate with the wrongdoing. Disclosure of the experiments contributed significantly to previously held concerns, because confusion and fear regarding radiation had been part of life in the Arctic since the late fifties due in part to the studies designed to estimate the impact of Project



Chariot. Those studies involved extensive monitoring of radioactivity levels and evidence of elevated levels of radioactive isotopes in both subsistence wildlife and people (Birch et al. 1997). By the 1990s, Iñupiat were “desperately seeking an explanation for the high number of cancer deaths in their village” (ibid: 281). Taken together, the Iodine experiments and the radioactive waste dump from Project Chariot were immediately understood as the reasons. After Chariot, the fears of radiation, and finally the disclosure of the Iodine tests, many Iñupiat lost trust in the federal government<sup>105</sup>.

Project Chariot and the Iodine experiments were only two of the many reasons that Iñupiat are particularly opposed to any kind of nuclear power or weapons. Several nuclear events over the past 60 years have been more significant for indigenous Arctic residents than for most of the general public and have cemented an unusually strong and widespread resistance to any type of nuclear development. To varying degrees, the Iñupiat became aware of nuclear weapons when the rest of the world did, at the end of World War II. The studies done for Project Chariot revealed that Arctic residents were already receiving higher doses of radionuclides due to atmospheric testing. During the 1960s, many Iñupiat were aware of underground nuclear tests on Amchitka Island. Also during these years, people increasingly became aware of the links between radiation and cancer. In 1988, the meltdown of the Chernobyl nuclear reactor rendered many herds of reindeer in Northern Europe inedible and, by that time, almost everyone on the North Slope was following the news on television along with the rest of the world.

Understandings of cancer on the North Slope, therefore, play a particularly strong role in shaping attitudes towards the military. These understandings, based on decades of experience with sickness and deaths due to cancer and fear of radioactive elements in the environment, explain the reaction to the Iodine experiments and account for the uncharacteristically adamant opposition to all things nuclear expressed by many residents

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<sup>105</sup> “The revelation that these northern Alaska Natives were participants in such a large number of experiments has contributed to the fear, apprehension and anxiety that exists in the villages. The recent disclosure that one of these experiments involved the ingestion of radiation has prompted the Inupiat to believe that other research in which they participated might have involved radiation or other harmful substances or activities as well. They no longer have faith or trust in the federal government, and feel that any atrocity might be possible in light of recent revelations,” (Birch et al. 1997: 96).

of the North Slope. It was on a very personal level that people were shocked by the Iodine experiments. With every case of cancer, that shock has evolved since 1994 into a bitter anger and sense of betrayal: “Yes, [they] felt betrayed. Everyone here had been welcoming and helpful to the military,” explained one informant. In contrast to somewhat lackadaisical attitudes about the impacts of the DEW Line (and even Chariot), a Point Lay man said that the Iodine experiments absolutely affected his perception of the military: “I think that was crazy what they did. [] Like we are guinea pigs for them.” He had a fair understanding of the purpose of the experiments as well: “[T]hey were trying to figure out why we can stay in the cold and they can’t. I think that’s what they were greedy over or something.” This seems to be exceptionally stupid and insulting to people, because the answer to that question is right in front of everyone’s nose: “It’s our seal oil.” This is particularly offensive because the Iñupiat had been exceptionally forthcoming with that kind of information for centuries with all the outsiders they had met.

People who are critical about the DEW line usually discuss it with a mixture of scorn, humor, and resignation. Discussions of Iodine and Project Chariot could not be more different: people immediately become very serious and appear to be controlling a slow-burning rage. Many were immediately defensive about the question of whether or not the Iodine (or radioactive waste) had caused the cancer through which their relatives had suffered. They left no room for negotiation. The people had long known that something was wrong with them, and the nuclear revelations explained it. Like several other informants, one woman became extremely stern and focused when the issue of whether the Iodine caused her parents’ and grandparents’ health problems. “I *know* it did,” she said, with a tone that conveyed more than conviction.

Hosting a defensive radar site is among the least offensive and most acceptable of imposed military activities, while unsanctioned and dangerous testing on individuals without their knowledge or consent is a universally understood evil, precisely the type of action that the U.S. had addressed after the atrocities of WWII with the Nuremberg Code. Even if the contamination from the DEW Line (and NARL and PET 4 exploration) constitutes a more significant and longer-term health issue, it is tame by comparison to

the nuclear issue in people's minds. An acute awareness of the threat of cancer and the dangers posed by radiation rather than by other chemical contamination is common. Most people do not have a thorough understanding of the complex threats presented by POPs and therefore do not blame them for disease or irregularities.<sup>106</sup> There is, then, an overall attitude of grudging acceptance of the DEW Line despite the negative impacts and the long-term health risks associated with it. By contrast, the level of betrayal and anger felt over the Project Chariot and the Iodine experiments is several orders of magnitude higher. As Etok articulated it, people were familiar with and trusted the military before the nuclear development, "but we did not expect them to blow up our birthright! Our homeland!"<sup>107</sup> (Edwardsen, April 14, 2009, Fairbanks).

With the end of the Cold War, Arctic security scholars (e.g. Griffiths 1992) hoped that there would be a redefinition and modernization of global security concepts leading to a sudden and unexpected opportunity to explore the potential for the demilitarization of the arctic region and the negotiations for pan-Arctic civil cooperation. During the 1990s, there was a noticeable shift in the focus of most of the arctic states towards environmental cooperation and international security actions, notably the international program that aided in the safe decommissioning of the Russian government's nuclear-powered submarine force. Contaminants in the Arctic are an issue that, like climate change, requires international cooperation in the region. Scholars have long recognized that protecting the Arctic environment and guarding the interests of all Arctic residents in ways that allow their full participation in political, social, and economic development requires broad-based cooperation on regional and circumpolar scales (Lyen and Gregorich 2006).

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<sup>106</sup> This is a situation that many epidemiologists deal with in their work: people don't know or care about a product/material/substance unless it is carcinogenic and they ignore the other threats posed by non-carcinogenic substances. The focus on cancer has defined and driven the Environmental Protection Agency's (EPA) regulatory process for toxic chemicals, and the preoccupation with cancer has blinded the public to evidence of other dangers (Colborn et al. 1997).

<sup>107</sup> Etok's attitude illustrates how, on one level, the Iodine experiment and Project Chariot are convenient for the U.S. Air Force today. These events focus attention on negative things that the military did in the past. The events are over, the military has admitted to them, the victims have been compensated. There is relatively little ire or energy to direct towards an entrenched problem such as contaminated landfills.

In recent years, the longer season of open water in the Arctic Ocean (particularly along the Northwest Passage), the rush for natural resources and the global security situation are increasing the strategic significance of the Arctic. The international media has made Arctic climate change and associated security issues a perennial focus, speculating about a new “Cold War” and discussing the “rush for resources” in alarming tones. Canadian Arctic security expert Bob Huebert’s investigations (2010) reveal that while recent policy statements issued by the Arctic nations have claimed adherence to the goals of civil cooperation and have dismissed this media portrayal as sensationalized hype, these countries are actually rebuilding their military forces and capabilities in the region.

Sheila Watt-Cloutier, while president of the Inuit Circumpolar Council, explained that the organization did not overtly oppose a new military build up in Nunavut for two interconnected reasons: no one believed they would be able to stop it and they wanted to be well-positioned to demand as much local control and benefits as possible should it occur (Watt-Cloutier, pers. comm.). Ongoing disputes over the amount of locals hired for clean up of old DEW Line sites are a legacy of Cold War military industrialization and exemplify possible future conflicts. Some communities have been working on cleaning up their DEW Line site for 10-15 years and, before the project’s completion, they are facing increased military activity in the region. Pond Inlet resident Phillip Paneak expressed one common sentiment: “We don’t want to see anything else on top of what we are cleaning up already” (Barrera 2007).

Mikhail Gorbachev’s watershed 1987 call for pan-Arctic peaceful cooperation reignited the push that began before the Cold War to create an Arctic Council. Understanding that scientific cooperation flourishes when backed by political cooperation, one initial mandate of the Arctic Council was to promote peace in the region (Roots 1992). U.S. participation required a caveat specifying that the Arctic Council had no jurisdiction over military security matters, while other Arctic Council founding philosophies embraced the idea that older notions of sovereignty impede the formation of a true Arctic entity.

Ronald Aniqsuaq Brower of Barrow explained that it was precisely the history of nuclear developments in the North and prospects for increased militarization that led to the creation in the mid-1970s of an international organization that would represent Inuit peoples in Greenland, Canada, Alaska, and Russia: the Inuit Circumpolar Council (ICC, originally Inuit Circumpolar Conference). When the ICC initially convened in 1977, one of the first resolutions they passed called for a nuclear-free zone in the Arctic (Appendix C). The ICC reaffirmed the resolution in 2006, and every person interviewed for this research was supportive of the spirit of the initiative. Furthermore, in contrast to the common qualifier of most interviewees that they are only speaking for themselves, several expressed the belief that most Inupiat supported the resolution.

***Conclusion: Tracing the Ironies of Arctic Militarization and Views on the Future***

There is a measure of ambiguity about what we call militarization, and studies like this one indicate that individual details and community histories are far more edifying than generalizing concepts. Without in-depth ethnography, it is hard to know if people who think they are not militarized truly are not, or whether they are so militarized that they do not even realize it. Militarism is inherently complex and contradictory: for example, many Inupiat and other Americans are pro-military, yet anti-war.

After his exploration of the impacts of militarization in eastern Canada in the 1980s, McMahon claimed that “without a sense of irony, you were lost in the Arctic: understanding the attitudes of the people became impossible” (ibid: 101). Investigating how the processes of modern militarization have shaped small communities and individual lives in the western Arctic is a process of exploring several large and obvious ironies and discovering many small and individualized ones. One conclusion is that the sheer number and scale of ironies associated with military activity in the Arctic actually serve as a bulwark to the social acceptance of militarized ideologies because they facilitate people’s ability to ridicule, disrespect, and minimize the power of the military over them. McMahon attempted to see the military in an Inuit context by explaining Inuit concepts like *aynumut*: a word that is used in impossible situations, as in: it cannot be helped. The Inuit view of the military is that there is no way of stopping it because it has

so much power. A dismissive and mocking attitude is the only way they can counter it and make it easier to accept that, in other ways, the people are powerless over the actions of the military.

The DEW Line itself is the source of ironies on all scales, and the most obvious concerns national defense. Designed to defend against bombers, the Line was rendered largely obsolete by Soviet ICBM development the same year it was completed. On an international scale, the Canadian government had been coerced by the U.S. into participating as partners. Eventually, sites in Canada were kept on largely to assert Canadian sovereignty in the Arctic, the main threat to which has historically been the U.S. On lesser scales, it is ironic how militarizing processes imported powerful antidotes to social militarization, for example in the form of civilian DEW Liners who stood up to the military on the side of the people.

Alaska's broader military history includes its own paradoxical scenarios. The military sent anthropologists to study Alaskan villages that had not been militarized for the purpose of facilitating future militarization and sent medical doctors, under oath to preserve life, who injected people with radioactive Iodine.

This study itself is somewhat ironic. Although there are different degrees of antipathy depending on the North Slope community in question, there is a level of resentment at being studied ad nauseam by social scientists with no obvious benefits accruing to the people from the research. Furthermore, a study of how militarization has affected relatively powerless indigenous communities that focuses on the Iñupiat is ironic because the Iñupiat are not the most disenfranchised group of Native Americans by any measure. Compared to most tribes, the Iñupiat of Alaska are significant powerbrokers. The bases on the North Slope have been cleaned up to far higher standards than in many other regions of Alaska. The Arctic Slope Regional Corporation is a globally significant and powerful corporation and the North Slope Borough is a wealthy regional government. It is ironic that despite the global attention on the Arctic and the relative power of North Slope institutions, the Iñupiat are still subject to extreme environmental injustice.

It is also ironic that, over 50 years after the DEW Line was constructed, the Air Force launched a public relations campaign in Kaktovik in the fall of 2008. Perhaps attempting to ameliorate community relations that had degraded during the contentious clean up process, an Alaska Command public relations officer explained that very few locals had been inside the radar site or had any understanding of what it did. Wanting local residents to have a “closer, more comfortable relationship with the station,” Elmendorf-based 611<sup>th</sup> Air Support Group arranged to have all the students at the Harold Kaveolook School be shuttled over for a grand open house and tour of the base. The Air Force Band of the Pacific’s Alaska Brass section flew to Barter Island and set up for a concert in BAR-Main’s vehicle bay and there was a large feast. Tory, a twelve-year-old resident of Kaktovik, characterized the fieldtrip as fun and cool. Tory also said that she wanted to join the military after the tour, in part because the outfits were so “cute.” The school principal was “thrilled with all this” because she believed it was important for the Kaktovikmiut to build a good relationship with the Air Force. “And the real key to that,” she explained, “is to reach the children.” She also thought it was a great opportunity to exploring future career choices the children may have (Callahan 2009).

Standing amid the flotsam and abandoned buildings of the DEW Line sites with the people who live next to them, surrounded by their land and history, there is absolutely no sense of ownership on their part. It is a normalized foreign element, but it is not theirs. The Kaktovikmiut never had a name for the military camp that was right across the road from their second village site because, according to one informant, they never owned it and they never gave it a name to own it. The DEW Line was just a place to work. It is not because they are under the influence of militarism that the Kaktovikmiut and other North Slope Iñupiat do not think about the role of the military in their history, but because they are not governed by the idea that recent economic dependence defines them in any meaningful way. After working at the DEW line for almost 30 years, elder Isaac Ahootchook deliberately emphasized, “it was *just a job, just a job*” (May 31, 2009, Kaktovik). The Kaktovikmiut, therefore, deny that the military has had power over the aspects of their lives that matter most. Lifelong Kaktovik residents have emphatically

stated that the military has had no impact on the town at all; that Kaktovik would be exactly the same had the military never come. Kaktovik, a community whose modern physical existence and economy can be directly traced to the military, demonstrates that it is possible for a small community to correlate very strongly with certain primary characteristics of militarization yet staunchly reject other core militaristic notions.

Sammy Lennie of Inuvik had a telling answer to the question of whether the Arctic is militarized: “Yeah, if you think about it that way” (April 3, 2009, Fairbanks). Most people do not think about it that way, and this is a tenet of militarization – its power lies in part in its ability to fade into the background and be ignored. Perhaps it was simple to ignore because, according to Etok, the DEW Line did not bring a new level of militarization to the North Slope - it represented “militarization on the same level” the Arctic had already experienced<sup>108</sup> (Edwardsen, April 14, 2009, Fairbanks). Etok claimed that militarization “started when they killed the first Indian” (ibid). While the North may be militarized, Etok believes that “the signature of peace is still alive in the Arctic” because at no time has a war occurred there and the people never abandoned their “superior occupation” (ibid).

Another characteristic of militarism is dependence on the military for a sense of pride and security. For the people with whom I’ve spoken, it is the resilience of their culture *despite* recent history that provides their source of pride, and their security comes from a belief that their communities could survive on their own without outside help.

Currently, climate change and the race for resources in the Arctic are the focus of major media speculation and sensationalism. No one knows whether and what kind of international cooperation or conflict will transpire, thus it is no surprise that the indigenous residents of the Arctic do not know what is coming either. They do feel as though it is largely out of their control and they do not know whether the Iñuit/Iñupiaq communities would be able to stop future military activity that would negatively affect their lives and livelihood. Some hope that, since the status of indigenous peoples’ rights is improving, “they maybe could slow them down a little bit.” Informants did not think

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<sup>108</sup> “Already militarized. Didn’t seem any different. Normal to people. The militarization had already been executed” (Edwardsen, April 14, 2009, Fairbanks).



there are any indigenous people in the Arctic who want war or conflict in the region, but what they want will have little effect unless large and powerful nations support them.

Jimmy Jones Olemaun of Barrow did not think that the Iñupiat would be able to prevent unnecessary military activity on their homelands. “No. No, no. Not in a thousand years. We can hold them off for a little while, make sure they do it more precautionary, but no” (Olemaun, Aug. 31, 2000, Peard Bay). Even Etok, famous for his regular and loud calls for resistance, conceded that he does not really think the Iñupiat have the power to stop it: “No, it’s the military industrial complex” (Edwardsen, April 14, 2009, Fairbanks).

Richard Gordon (of Inuvik, NWT and Herschel Island, Yukon) characterized the struggle that his people are already engaged in as a war. “As aboriginal people, it is a war. ...I mean, our definition of war is going to be totally different from country – where we fight to survive in our own land” (R. Gordon, July 24, 2008, Herschel Island, Yukon Territory).

Well-known Iñupiaq environmental activist and eco-wilderness tour guide Robert Thompson also strongly supports a demilitarized zone in the Arctic and does have a concrete solution that would protect the Arctic from both continued oil industry *and* military activity: “What we got to do is get off of oil, that way we don’t have to fight about it.” Robert also commented on the principal idea that led to the DEW Line: “I guess [nuclear weaponry] serves its purpose, if there's so much either side is afraid to use them: mutually assured destruction. Maybe that takes the place of civilization” (Thompson, May 5, 2009, Kaktovik). Robert’s insight into militarism recalls Alfred Vagts’ *A History of Militarism, Civilian and Military*, in which Vagts asserted that the true opposite of militarism is not pacifism, as most assume, but ‘civilianism.’

Many benefits of militarization are civilian in nature - in the case of the DEW Line: jobs, food, some good people, material goods, infrastructure, health care, transportation, and entertainment. Nationwide, the civilianization of militarization renders militarism more pervasive. However, the Inuit with whom I spoke did not

believe that those basic civilian goods and services are only possible within a militarized economy.

In summary, this dissertation has described many of the far-reaching and multi-layered effects of the small, remote, and seemingly innocuous elements of modern militarization. It has illustrated that ethnographic methods hold great potential for understanding the environmental destruction wrought by bases on local inhabitants and the actual subjective experiences of individuals in the midst of global political systems. As such, I hope that it contributes towards the larger goal of deconstructing militarized notions of security. The people with whom I spoke in the western Arctic see threats to their own physical health and the health of their land, ocean, and resources as the most critical security issues. Future defensive measures in the Arctic will only provide true security by respecting the wishes and civil rights of the region's inhabitant and keeping human and environmental health as goals.

### Interviewees

**Agiak**, Alice. 05/31/2009. Interview recorded in Kaktovik, Alaska.

**Agnasagga**, George. 09/13/2009 Interview recorded in Wainwright, Alaska. Interview focused on Point Lay, where Agnasagga was born and raised, Cape Beaufort/Cape Sabine, and Icy Cape.

**Akootchook**, Isaac. 05/31/2009. Interview recorded in Kaktovik, Alaska.

**Akootchook**, Lillian and Daniel. 05/28/2009 Lillian and Daniel Interview recorded in Kaktovik, Alaska.

**Akootchook**, Roy. 05/23/2009. Interview recorded in Kaktovik, Alaska.

**Alexie**, Robert Sr. 07/06/2008. Interview recorded in Fort McPherson, Northwest Territories.

**Arey**, Nellie. 07/18/2008. Interview recorded at Running River Camp, Shingle Point, Yukon Territory.

**Audi**, Walt. 08/08/2008. Interview recorded in Kaktovik, Alaska. Audi is white, a former DEW Liner, and the first white man to move his family to Kaktovik.

**Brower**, Ronald Aniqsuaq. 12/11/2007. Interview recorded in Fairbanks, Alaska. Brower is from Barrow.

**Burns**, Nora Jane. 07/31/2008 & 05/27/2009. Interviews recorded in Kaktovik, Alaska.

**Edwardsen**, Charles Etok. 04/14/2009. Interview recorded in Fairbanks, Alaska. Edwardsen is from Barrow, Alaska.

**Ekak**, Charles (Chuck). 09/2009. Interviews (not recorded) conducted over the course of two weeks in Wainwright.

**Elavgak**, Lillian. 10/01/2009. Interview conducted in Barrow, Alaska. Elavgak is originally from Kalovik, Alaska (adjacent to Point Lonely).

**Gordon**, Evelyn Masek. 05/25/2009. Interview recorded in Kaktovik, Alaska.

- Gordon, Richard R.** 07/24/2008. Interview recorded on Herschel Island, Yukon Territory. Richard Gordon is the senior park ranger at Herschel and lives in Inuvik but has lived in Tuktoyaktuk.
- Iglangasak, Bruce.** 05/24/2009. Interview recorded in Kaktovik, Alaska.
- Iglangasak, Tori Lynn.** 05/28/2009. Interview recorded in Kaktovik, Alaska.
- Kayotuk, Carla Sims.** 05/29/2009 Interview recorded in Kaktovik, Alaska.
- Lennie, Sammy L.** 04/03/2009. Interview recorded in Fairbanks, Alaska. Lennie is a resident of Inuvik and grew up on the three DEW Line sites in the Mackenzie River Delta (Tununuk, Shingle Point, and Tuktoyaktuk).
- Linn, Benjamin.** 05/31/2009. Interview recorded in Kaktovik, Alaska.
- Merriman, Harry.** 03/24/2009. Interview recorded in Fairbanks, Alaska. Merriman is a lifelong Alaskan and worked at Barter Island as well as on the supply route for the Alaskan sites and at DEW Line sites in Greenland.
- Meyook, Jonas and Thelma.** 07/15-19/2008. Interview conducted at Shingle Point camp and Shingle Point DEW Line site (BAR-2). The Meyooks have a house at Shingle Point and live in Aklavik.
- Nageak, Roy.** 09/08 & 09/09. Interviews (recorded and written) conducted in Barrow, Alaska.
- Niglik, John (alias).** 05/30/2009. Interview recorded in Kaktovik, Alaska.
- Oktallik, Jack.** 09/16/2009. Interview recorded in Wainwright, Alaska. Oktallik is originally from Point Hope.
- Olemaun, James (Jimmy Jones).** 08/25/2009-09/12/2009. Interviews recorded in Peard Bay, Alaska. Olemaun is from Barrow.
- Panik, Isaac.** 09/13/2009. Interview recorded in Wainwright, Alaska.
- Phillips, Harold.** 12/13/2006. Interview recorded in Texas City, Texas. Phillips was a DEW Liner in the early years, working at Cape Beaufort, Point Lay, Icy Cape, Wainwright, and Barrow.
- Tagarook, Ruth.** 05/28/2009. Interview recorded in Kaktovik, Alaska.
- Tazruk, James.** 09/24/2009 James. Interview recorded in Point Lay, Alaska.

**Thompson, Jane Akootchook.** 08/2005. Interviews conducted in Kaktovik, Alaska.

**Tulugak, Betsy (alias).** 09/18/2009. Interview recorded in Wainwright, Alaska.

**Thompson, Robert.** 05/19/2009. Interview recorded in Kaktovik, Alaska.

**Warden, Mary Ann Iqilan.** 05/28/2009. Interview recorded in Kaktovik, Alaska.

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## Appendices

### Appendix A UAF Institutional Review Board Approval



#### Institutional Review Board

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April 7, 2008

To: David Koester, Ph.D.  
Principal Investigator

From: Bridget Stockdale, Research Integrity Administrator  
Office of Research Integrity

Re: IRB Protocol Application

Thank you for submitting the IRB protocol application identified below. I have administratively reviewed this protocol and determined that it meets the requirements specified in the federal regulations regarding human subjects' protections for exempt research under 45 CFR 46.101(b)(2) for research involving the use of educational tests, survey procedures or observation of public behavior.

Protocol #: 08-18

Title: *DEW Line Passage: Tracing the Legacies of Arctic Militarization*

Level: Exempt

Received: March 31, 2008

Review Date: April 7, 2008

*If there are major changes to the scope of research or personnel involved on the project, please contact the Office of Research Integrity. Email us at [irb@uaf.edu](mailto:irb@uaf.edu) or call 474-7800. Contact the Office of Research Integrity if you have any questions regarding IRB policies or procedures.*



UNIVERSITY OF ALASKA FAIRBANKS

## **Appendix B**

### **Interview Questions**

1. Potential open-ended questions for DEW Line interviews with Indigenous Arctic Residents to be omitted/added to/changed as interviews progress:

- Did you or any of your family members ever work at the DEW Line site?
- Did they (you) work at just this one site, or did they ever travel to other DEW Line sites?
- Did your family live here before the DEW Line site was built?
- What are your earliest memories of the DEW Line site?
- What are your strongest memories of the DEW Line site?
- Has your family ever used anything that came from the site, such as building materials?
- Are you glad they tore it down? Why? / Do you think they should tear it down or would you prefer that some or all of the buildings stay?
- What have the most helpful things the DEW Line site has brought to the community?
- What are the negative things the DEW Line has brought to the community?

- Do you think that this community would be the same if the DEW Line site was never built here? If not, how would it be different, would it even be here?
- Were you afraid of the DEW Line site as a child?
- Do you understand how the DEW Line site worked?
- Did you feel that Soviet bombers were the biggest threat?
- Do you think building the DEW Line site was worth it?
- What are the biggest security problems facing the Arctic today?
- How were the relations between the DEW Liners and the villagers?
- How much did those relations depend on who was in charge at the site?
- Do you know anything about contamination (pollution) from the DEW Line site?
- If so, have you noticed that contamination from the site has impacted local resources such as subsistence foods?
- (For older people) Do you remember when the DEW Line was built? What do you remember most clearly about it? Do you remember what your impression was of it at the time?
- Did you or someone in your family ever work on the DEW Line?
- What was your job?

- Do you feel that you learned a valuable trade or skill?
- What did you think of the food at the DEW Line?
- Did you make lasting friendships with white workers?
- Did it make a difference to you that your job was at a military site as opposed to other industrial development?
- Did you feel that you played an important role in the Cold War?
- Do you think that the DEW Line changed the social order in your community?
- Was your perception of the military shaped by the DEW Line? If so in what way?
- Which do you think poses a more serious threat to the Arctic: war & terrorism, global warming, or contamination?
- Do you think that the military importance of the Arctic coast has been overall a positive thing for your community or overall a negative thing or is that impossible to say?
- Would you like the remaining DEW line buildings to be torn down or would you like them to stay?
- Do you know of the DEW Line sites being used as landmarks?



- Do you think that there would be a good use for the material that is left – is there any way to reuse anything from the site?
- Have you ever used any material from the DEW Line?
- When and how did people in your community become aware of contamination issues from the DEW Line?
- Do you feel that contamination from the DEW Line has caused an increase in sickness in your community – or do you feel that there has been an increase in cancer and other sicknesses but is it impossible to isolate the impact the DEW Line may have had?
- What would have been the main differences if an industry that was not military had come to your community at the same time?
- How much of an impact did the DEW Line have on people's patriotism in your community?
- Were you ever aware of any differences in the DEW Line sites in Alaska (Canada?)
- What do you think your community would be like if the DEW Line had never come?
- Do you think that having the DEW Line has attracted more animals to this area (ravens, foxes, polar bears) or are animals less likely to come near a site?

- The Inuit Circumpolar Conference wanted to designate the entire Arctic coastal region a zone of peace, they wanted no military in the North, and they wanted to formally declare it a nuclear-free zone and for the land to be used for purposes that are peaceful and environmentally safe. Do you think this is a good idea and do you think that communities would suffer economically if that happened?
  
- Would you like to see the old DEW Line site be:
  - torn down and completely cleaned up
  - remodeled into something useful for the entire community
  - refitted and operated as a military site?
  
- Is there anything from the DEW Line that you think would be important to remember as scientists study climate change?
  
- Do you feel that the building of the DEW Line changed your culture in a fundamental way?
  
- Do you think people in your community felt that they were playing a very important role in defending all of North America?
  
- How is the thinking of the younger generation different on this – are they more or less patriotic than the previous generation?
  
- Do you think the DEW Line had an impact on how your community views itself politically and whether it made land claims easier or harder?

**2: Potential questions and topics for oral Interviews with retired DEW Liners:**

Work

- What years did you work at the DEW Line?
- How long total did you work on the Line?
- Which site(s) did you work at?
- Do you know the local names for the sites?
- Can you estimate how many different people you worked with?
- What was your position / what were your positions?
- Can you describe your work: what were your duties, your schedule, was it boring or interesting, difficult or easy, etc.
- What were your personal reasons for working on the DEW Line?

#### General Culture

- In your opinion was DEW Line culture a unique one and if so, how?
- Was the mood generally upbeat or morose?
- Was this affected by the seasons and if so, how much?
- What do you think were the reasons most people had for working on the DEW Line?

#### Health Care

#### Alcohol

- Did your site have a bar?
- Were there rules regarding alcohol consumption? If so, what were the rules, and were they generally followed?
- Did native inhabitants drink alcohol at the site?

#### Relations with Locals

- In your opinion, what aspects of the DEW Line were most advantageous to the native residents?
- What aspects were least advantageous or disruptive?

### Environment

- In your opinion did the construction of the DEW Line constitute a transformation of the arctic environment?
- Did you and your coworkers have any concerns for the environmental impact of the DEW Line at the time?

### Government/Military

- Did the consider the site you worked at to be a military installation?
- Did you consider the DEW Line as a whole to be a form of militarization?
- Do you think the native residents viewed it as a military operation? How do you think that would affect their view of it?
- Were there many military rules?  
What was the level of secrecy?
- Did most employees have respect for the mission? Was that the main reason they were there, or was it more of an individual desire for money or adventure?
- Was patriotism more prevalent at the DEW Line than at civilian jobs?

## **Appendix C**

### **Iñuit Circumpolar Council Resolution on a Nuclear Free Zone in the Arctic**

(Originally adopted in 1977, reaffirmed in 2007)

WHEREAS, the Iñuit Circumpolar Conference developed a fundamental policy restricting the arctic and sub-arctic to those uses which are peaceful and environmentally safe;

WHEREAS, this policy is reflected in the several resolutions adopted by the general Assembly and the Executive Council since the formation of the Iñuit Circumpolar Conference in 1977;

WHEREAS, the governments of the United States and Canada intend to co-operate with each other to test the cruise missile in our northern Canadian homeland;

WHEREAS, the government of the United States has entertained the idea of basing the massive MX missile system in our Alaskan homeland;

WHEREAS, Atomic Energy Canada Limited plans to test the environmental and economic feasibility of the mini-Candu and the Slowpoke 3 (small nuclear reactors for generating electricity) in the Canadian north since they are prohibited from testing them in the Canadian south due to environmental restrictions; and

WHEREAS, the arctic and sub-arctic shall not be used for any nuclear testing or as a nuclear dump-site;

NOW, THEREFORE BE IT RESOLVED that the Iñuit Circumpolar Conference emphatically restates its nuclear position:

1. that the arctic and sub-arctic be used for purposes that are peaceful and environmentally safe;
2. that there shall be no nuclear testing or nuclear devices in the arctic or sub-arctic;
3. that there shall be no nuclear dump-sites in the arctic or sub-arctic;
4. that exploration and exploitation of uranium, thorium, lithium or other materials related to the nuclear industry in our homeland be prohibited.

FURTHERMORE BE IT RESOLVED that the Canadian government be notified of our opposition to the testing of the Cruise missile in our Canadian homeland and that they be requested to refrain from such tests;

FURTHERMORE BE IT RESOLVED that the United States government be notified of our opposition to the placement of the MX missile in our Alaskan homeland and that they be requested to cease with any such plans;

FURTHERMORE BE IT RESOLVED that the Inuit Circumpolar Conference study and research current international treaties to determine whether or not they comply with the Inuit Circumpolar Conference Arctic Policy;

FURTHERMORE BE IT RESOLVED that the Executive Council of the Inuit Circumpolar Conference lobby the United Nations and various international organizations to encourage members of the United Nations to adopt a policy for a nuclear free zone in the Arctic.

## Appendix D

### HomoSexyDEW

*(A poem culled from words appearing in this order in the first few pages of Dick Morenus's "DEW Line" (1957: 11-16))*

Greatest dramas – four men – grave responsibility – critical plunge – atomic war

Four men – long desk – glassed-in command booth – big room

Insured – direct contact – tensely alert – swallowed – sense of vital expectancy – dominated

Magic – alert – impending attack – unerringly alert – members

Scanning – funneling – heart and soul of our country's system – four men – its brains

Drama – climax close at hand – hardly more than ten minutes – alert – quickly

Flashed – ionospheric scatter broadcast – men – trouble – mass attack – mission – serious

Drama – target – drop their loads of lethal luggage

Interceptor units – speediest – alert – ready – red, bright red – “hot line” – direct contact

Mission – action – full-scale defense – battle to the finish

Alert – activate – quickly – final – attack

The General looked at his watch

Moment – deep breath – glanced – officers beside him – smilingly relaxed

Play was over – for the good of mankind

**Appendix E****The Abandoned NORAD Station**

White Alice  
is deserted above the town  
The blank eyes  
like displaced drive-in screens  
made obsolete  
by new technology.  
It was from this place  
when I was a child  
that we were told  
a message would come.  
We would hide under desks  
and wait for that nuclear sun  
which would burn us into  
shadows on stone.

Looming high above Nome  
on the forehead of the mountain,  
it looks towards the east  
with the empty gaze  
of a junkie lost  
in a 60's dream,  
linked into languages  
of defense  
which are as strange  
as its useless shape,  
as oblique



as its looking-glass name  
and the games  
it reflects from a land  
once linked to this one,  
still woven tight to it  
by the long winters' ice.

But that Siberian coast,  
just beyond,  
the curve of sight  
is more like this  
than maps can tell  
and the land holds onto  
old languages, cousin  
to those the people  
here still remember,  
tongues which speak  
of the sea, which hold  
onto the seasons, words  
shaped by those  
close enough to this earth  
to survive.

(Bruchac,1989: 33)