algary-based, ATCO Frontec describes itself as a provider of: "camp support services, facilities operations and maintenance and property management services for the resource, telecommunications and defence sectors"1

It is deeply involved in "missile defense" through at least three major sets of contracts. This "camp support" has netted the corporation hundreds of millions of dollars.

1. The Alaska Radar System ATCO Frontec, with its "expertise in

radar systems operations and maintenance" has also partnered with an Inupiaq (i.e., North Alaskan Inuit) corporation called Arctic Slope World Services (ASWS). Together, they formed a joint-venture called ARCTEC Alaska which landed contracts for O&M of the Alaska Radar System (ARS).²

The ARS, which ATCO and

Nasittuq Corp.

The Nasittuq Corporation, a joint business venture of two Canadian firms. ATCO Frontec and the Pan Arctic Inuit Logistics Corp. (PAIL), supports the "missile defense" weapons program though contracts with the Department of National Defence (DND).

Nasittuq's contract covers the "maintenance, logistics, environmental systems management, systems engineering and project management" of the entire Canadian portionof NORAD's North Warning System (NWS).1

On Aug. 5, 2004, the NORAD treaty was changed to "include aerospace warning...in support of the designated commands responsible for missile defence of North America."2 (See "Canada Requested 'Missile Defense' Role in NORAD," p. 10.)

The NWS, comprised of dozens of radar stations strung across northern Canada and the U.S., forms the backbone of NORAD's role in "aerospace warning." As explained by Canada's Department of National Defence (DND):

"state-of-the-art radars form a 4,800km-long and 320-km-wide 'tripwire' stretching from Alaska to Newfoundland. Data from radars and sensors based in Canada are compiled and

ATCO Frontec Corp.

ASWS have operated since 1994, is the U.S. segment of NORAD's NWS. Like the NWS that crosses Canada from the Yukon to Labrador, the ARS provides essential data for "missile-defense" detection and tracking functions.

On May 25, 2004, ARCTEC Alaska won its latest contract to operate, manage and maintain the ARS. It received a "one-year contract with nine, one-year renewal options" for a total "estimated value," over the next ten years, of about US\$400 million. The ARS electronic facilities for which



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Arctec Alaska is reponsible, include three short-range stations and 15 longrange radar stations. Scattered across 590,000 square miles of northern Alaska, they provide "more than two million square miles of radar coverage." Arctec Alaska also maintains the ARS

"support systems and the Maintenance Control and Communications Centre at Elmendorf Air Force Base in Alaska."3

Although the prospect of a half billion in contracts over the next decade certainly makes things look pretty rosy for Arctec Alaska, and its co-owners ASWS and Canada's ATCO Frontec, the U.S. General Accounting Office (GAO) was not so enthusiastic. In October 2003, the New York Times ran a story detailing various concerns expressed by the GAO, regarding the Bush administration's "missile defense" scheme, and particularly the ARS.

As the equivalent of Canada's



analyzed at an underground complex located at Canadian Forces Base North Bay, Ontario, then forwarded to Canadian NORAD Region Headquarters at CFB Winnipeg, and the NORAD command and control centre in Colorado."3

Nasittuq is responsible for carrying out all of the operation and maintenance (O&M) tasks at the NWS fa-



cilities in the Yukon, Northwest Territories, Nunavut, Quebec and Newfoundland. Primary among these facilities is a "chain" of "state-of-the-art microwave radar" stations, including "10 long-range radars (AN/FPS-117) [and] 36 short-range radars (AN/FPS-124)."4

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Nasittuq also does O&M work for NWS "logistics support sites" in Goose Bay (NF), Cambridge Bay (NU), Hall Beach (NU), Inuvik (NT) and Iqaluit (NU) and at the NWS Support Centre and Canadian Region Operations Control Centre⁵ at NORAD's Air Operations Centre in North Bay (ON) and their contract management office, Ottawa (ON).6

Back in 1988, ATCO Frontec was awarded the very first contract for O&M work on Canada's NWS.10 It then

Office of the Auditor General, the GAO "warns that the hurried attempt

to blend 10 separate high-tech defense systems into one program is proceeding full speed ahead, as Mr. Bush ordered, but without adequate preliminary demonstrations that the pieces will ever work well together. Most pressing, a crucial Alaska radar system at the heart of the plan has not yet been shown to be ready for the job it is being adapted to do."4 (Emphasis added.)

The GAO's report in April 2003, also criticised the unrealistic manner in which the Missile Defense Agency (MDA) conducts tests of "missile defense" weapons. The GAO also noted that besides the problem of these faulty and rigged tests, the MDA has

"no plans to demonstrate through flight testing the upgraded primary radar in Alaska that will be used to detect and track enemy missiles."5

teamed up with PAIL and received a \$288-million contract for work between 1995 and 20018 That was the single largest Canadian military contract awarded in FY1994-1995.9 Then they created Nasittug and landed the next five-year, \$300 million contract in 2001. The Canadian government is expected to extend that with a \$306-million contract to conclude in $2011.^7$

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2. U.S. Air Force Space Command's SSPARS

ARCTEC Services, is another creation of ATCO Frontec and ASWS. Since 1999, Arctec Services, a jointly-owned creature of these two corporations, has been doing all of the O&M work on a key "missile defense" radar network called the Solid State Phased Array Radar System (SSPARS).

The contracting agency for SSPARS is the U.S. Air Force Space Command and the primary function of this radar system is to track and assess ballistic missiles. Its secondary mission is to track satellites and other objects in space. As ATCO Frontec puts it:

"SSPARS facilities...provide ballistic missile and attack assessment to National Command Authorities. They also detect and track satellites and orbiting space debris.... [T]his program is considered vital to the U.S. Air Force Space Command."6

What is this "vital" radar system required for the "missile defense" weapons programs that is largely entrusted to Canada's ATCO Frontec?

SSPARS is part of an "extensive early warning network" of "groundbased radars and space-based sensors." Its most specific goal is

"to detect intercontinental ballistic missile (ICBM) and sea-launched ballistic missile (SLBM) raids against the U.S. and Canada."7

Although the overall management of the system is based in Colorado Springs, Colorado, there are five SSPARS facilities around the globe. Three of these radar sites use SSPARS "to accomplish the missions of longrange search/surveillance and tracking."8

Two of these SSPARS sites use a powerful Air Force radar technology called the PAVE Phased-Array Warning System (PAWS). The PAVE PAWS radars are located at Beale Air Force Base in California and the Cape Cod Air Force Station in Massachusetts. Although first made operational in the early 1980s,9 the Ballistic Missile Defense Agency began to conduct environmental impact studies in 1999 because of plans for a major upgrade to

"accommodate new early warning radar requirements for the NMD [National Missile Defense] mission."10

The third major SSPARS site within the U.S. is at the Clear Air Force Station, in Alaska. This site is part of what is called the Ballistic Missile Early Warning System (BMEWS). According to the U.S. National Telecommunications and Information Administration:

"BMEWS has been the backbone of the U.S. missile defense system for over 30 years."11

James Bollinger a member of U.S. Air Defense Radar Veterans Association. explains that:

"The primary mission of BMEWS is to provide NORAD with Tactical Warning/Attack Assessment data on all ICBMs and SLBMs penetrating the site's coverage. The secondary mission is to provide NORAD with Launch and Impact predictions for attack assessment by NORAD."12

There are also two BMEWS sites using SSPARS technology outside of the U.S., one in the UK and the other in Greenland,¹³ a self-governing dependency of Denmark. The presence of these two radar stations on their soil is enough to make these states fullfledged members of the "coalition of the willing" vis-a-vis "missile defense." Although ATCO Frontec is front and centre in the management and operations of SSPARS radar sites in Greenland, the UK and the U.S., as well as the 50 NORAD radar stations that are actually based on Canadian soil, the Canadian government has pretended that it is not part of "missile defense."

Here are some details regarding the services provided by ARCTEC Services at these five SSPARS sites:

 Beale Air Force Base, California and Cape Cod Air Station, Massachusetts
ARCTEC Services operates large power production centres and per-

forms all facility maintenance, HVAC [Heating, Ventilating, and Air-Conditioning and Refrigeration], electrical and plumbing systems.

• Clear Air [Force] Station, Alaska - the scope of services at this site is much broader and in-

cludes operation and maintenance of all base facilities, civil engineering, power, HVAC, water and wastewater systems, structures, grounds, housing, food services, health services, environmental management, vehicles and railroad.

- Thule Air [Force] Base, Greenland limited to operation and maintenance of radar and satellite communications.
- RAF [Royal Air Force] Fylingdales,

Besides helping maintain and operate "missile defense" radar sites in Alaska, Canada's ATCO-Frontec also services two in Greenland and one in the UK. The governments of Denmark and Britain are at least willing to admit participating in "missile defense." Canada is not.

UK - ARCTEC Services is responsible for the operation and maintenance of only the satellite communications systems with the U.S. military handling all other operation and maintenance services at that site."¹⁴

ARCTEC Services also manages and operates "calibrating test measurement and diagnostic equipment used by third parties" at U.S. Air Force Precision Measurement Equip-

> ment Laboratory facilities. These are located at Clear Air Force Station, AK and Thule Air Base, Greenland.¹⁵

> It will, unfortunately, not come as a surprise that the contracts obtained by ARCTEC Services for the care and tending of these

SSPAR early warning/attack assessment radar sites, that are so "vital" to the "missile defense" weapons scheme, are extremely lucrative. The U.S. Department of Defence online listing of contracts, to be found at its <www.defense

The Origins of NORAD's North Warning System

Three different sets of radar-station networks were built across the entire breadth of Canada's north in the 1950s. They were all completed *before* Canada and the U.S. actually created the bilateral treaty organisation known as NORAD. Formed in 1958, this military alliance solidified the two government's Cold War stance against the Soviet Union. A major function of NORAD was to oversee the operation and use of the new radar facilities.

The first series of radar stations built across Canada was called the Pine Tree Line. Completed in 1954, it a cost US\$50 million. Then, in 1957, about 300 miles farther north, a series of microwave Doppler radar stations, called the Mid-Canada Line, or McGill Fence, was completed. It cost about US\$230 million and Canada footed the entire bill.

The Distant Early Warning (DEW) line was next. Located about 200 miles north of the Arctic Circle, this network of 57 stations, was completed in July 1957. It cost US\$350 million to build and was paid for by the U.S.¹ The "lifetime cost" of the DEW line has, however, been estimated at US\$7 billion, in 2004 dollars.²

This dollar figure, however astronomical, does not include cleaning up lethal contaminants left behind by the U.S. and Canadian militaries. The environmental costs of the DEW line are incalculable, and its toxic legacy will never be erased. As noted by Dr. Paul Hamel from the University of Toronto's Department of Pathology, the real

"burden lands again in the laps of

DEW Line bases, the Canadian Government asked the U.S. government to help pay for the clean up. The U.S. originally refused but then offered \$100 million dollars for [their share



This NWS site at Hall Beach on Baffin Island, Nunavut, has two huge tropospheric dishes and several radar domes.

the indigenous peoples in this country on whose land these bases were set up in the first place without their permission."³

Hamel also reminds us that "In a bid to clean up these northern of] the cleanup. However, the \$100 million dollars was not in cash but were credits for the Canadian government to purchase U.S.-made military equipment. So, the actual financial burden remains in Canada along link.mil> website, documents basic details about ARCTEC Service's work. The company has been receiving just over \$41 million dollars annually for the past six years "to manage, operate, maintain and logistically support" the five SSPARS system sites. That brings their income for this particular aspect of the "missile defense" system up to about US\$250 million. Not bad for doing what they colloquially called their "camp support."

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with all of the toxic waste.... This represents one example where pollution of the environment by the military is 'good for business.' Not only does it offer job opportunities for cleaning up the mess, in the case of Canada, it helps finance the U.S. military industries who will benefit from the 100 million dollar 'guns-in-lieuof-cash' deal to sort out this mess."⁴

After all that expense, the multibillion dollar DEW line was considered obsolete and had to be upgraded. In 1979, the U.S. Air Force had begun writing its "Air Defense Master Plan" to modernise NORAD's radar bases in Canada's north. The U.S. decided, with Canadian government concurrence, that it was high time the DEW Line was replaced. And so, the NWS was constructed between 1986 and 1992.

NWS construction costs were "shared between Canada and the U.S. in the ratio USA/Canada 60/40. Under the terms of the Canada/USA agreement on North American Air Defence Modernization [NAADM], signed in Quebec City, 17 March 1985, Canada assumed responsibility for the O&M [Operation & Maintenance] of the NWS in Canada."⁵

This NAADM Memorandum of Understanding, signed by President Ronald Reagan and Prime Minister Brian Mulroney at the so-called 'Shamrock Summit,' initiated a huge project that was finally completed between 1992 May2004/25/c7241.html

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and 1994. The cost of the NNADM was just over \$1 billion. The prime contractor overseeing this major project was Thomson-CSF Systems Canada, which is now called Thales Systems Canada.⁶

NAADM actually covered three main elements:

- (1) **NWS**: The modernisation and extension of the obsolete DEW Line.
- (2) **Forward Operating Locations** (FOL): The extension of four, arctic airfields for deploying U.S. and Canadian fighter planes,⁷
- (3) Canadian Coastal Radars (CCR): The replacement of four former Pine Tree Line radar stations on the east and west coasts of Canada: Holberg (BC), Barrington (NS), Sydney (NS) and Gander (NF).⁸

The Canadian military industries that cashed in on the major subcontracts for this project were:

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NWS and FOL:

- CANAC/Microtel (Coquitlam, BC),
- BOT Engineering & Construction Ltd. (Oakville, ON)
- PCL-Foundation (Edmonton, AB).

CCR:

 Martin Marietta Cda (Weston, ON)⁹ Canada's expenses for the NWS

did not end when construction was finally concluded on this extensive network of radar stations. That was just the beginning. Canada now has to pay for the all of the ongoing costs of operating and maintaining (O&M) its portion of NORAD's NWS. Enter, the Nasittuq Corporation, a joint business venture between two Canadian companies: ATCO Frontec and the Pan Arctic Inuit Logistics Corporation. It received a five-year \$300-million, O&M contract in 2001.¹⁰ (See "Nasittuq Corp.," p. 22.)

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