DRS Technologies Canada Inc.

One of the most remarkable examples of the design and production of "missile defense"-related technologies in Canada is the case of DRS Technologies Canada Inc., and its Flight Safety and Communications (FSC) group. This company, a subsidiary of a U.S. war corporation, DRS Technologies Inc., has research and manufacturing facilities in Carleton Place, just west of Ottawa.

Since 1995, when this facility was known as Spar Aerospace Ltd., it has worked with a European company to create SIRIUS, one of the world's most advanced, missile-sensors. This product, a Long-Range Infrared Search and Track system, is a linked to sea-based, "theater missile defense."

The most noteworthy thing about this particular "search/track missile defense"[1] system is not that it is being produced in Canada. Neither is it terribly unusual that the Canadian government has spent tens of millions of dollars to assist in creating this high-tech system for use in firing "missile defense" weapons. Nor, is it especially remarkable that these SIRIUS sensors

> "are integrated with [US/NATO] weapon systems such as the Standard Missile 2, Evolved Sea Sparrow Missile and RAM Missile."[2]

What Canadians may find most extraordinary about the SIRIUS "missile defense" system is that it was developed for use aboard *Canadian*, Dutch and German warships.

The design and production of this "Naval Infrared Missile Defense System"[3] was a project of the Dutch and Canadian governments. However, this does not mean that the U.S. military wasn't involved. These NATO countries chose the Thales-DRS missile detection/targeting system not only because it is the best of its kind in the world, but because it is designed for full integration into U.S. military forces.

Let's take a look at SIRIUS, the role played by DRS Canada in its creation, the function of this equipment within the context of naval "missile defense" and the broader issue of how the Navies of Canada and other NATO countries have been drawn into U.S. plans for "missile defense."

Looking like a robot from Star Wars, SIRIUS is actually a "Naval Infrared Missile Defense System." Created and generously funded by the governments of Canada and the Netherlands, it is being built by Thales Naval Nederland and Ottawa's DRS Flight Safety and Communications. It will be used aboard Canadian Frigates.

SIRIUS:
A Canada-Netherlands "Missile Defense" Collaboration

SIRIUS, is a Long-Range Infrared Search and Track system used aboard some of the world's most advanced warships. In May 2000, a DRS Technologies media release announced that the company had received a US$6.4 million contract from Hollandse Signaal Apparaten (HSA) to work on the SIRIUS system. (Later that year, this Dutch company was purchased by France's war industry colossus, Thales, and renamed Thales Nederland. Thales is the 85th largest war industry in the world.[4] It has subsidiaries in 49 countries, including six in Canada alone.[5]

The contract was for the Ottawa-valley's DRS FSC, to design and develop the "production prototype" for two key aspects of this "missile defense" system, namely its "signal processing unit" and its "optical lens assembly."[6] DRS Technologies, FSC's U.S. parent, is based in Parsippany, New Jersey and is the world's 80th largest war-related industry.[7]

When DRS announced that work on the SIRIUS would be done in Canada, Mark Newman, the chairman, president and CEO of DRS Technologies was delighted.

"Our work on the SIRIUS program," he explained, "has positioned DRS

DRS TECHNOLOGIES

DRS Flight Safety and Communications
115 Emily St.
Carleton Place ON K7C 4J5
Phone: 613-253-3020
Fax: 613-253-3033
Email: general_inquiries@drs.ca
Website: www.drs.com

as *a key supplier of systems for missile defense that are critical for Canadian and allied international fleet operations*."[8] (Emphasis added)

DRS say that SIRIUS is:

"an automatic infrared detection and target tracking system for anti-ship missiles and aircraft…. SIRIUS provides continuous passive horizon search for sea skimming anti-ship missiles, threat identification, cueing and track correlation, engagement guidance and target assessment. Recent U.S./Dutch studies show that SIRIUS also *has the potential to enhance a naval Tactical Ballistic Missile [TBM] Defense capability*."[9] (Emphasis added)

These U.S.-Dutch studies showed that SIRIUS

"can detect TBMs during the boost phase at a range of hundreds of kilometres; and to detect TBMs re-entering the atmosphere at an altitude of approximately 70 km. One of the SIRIUS systems will be delivered to Lockheed Martin Integrated Sys-

Naval Star Gazing: The Many Myths of Sirius

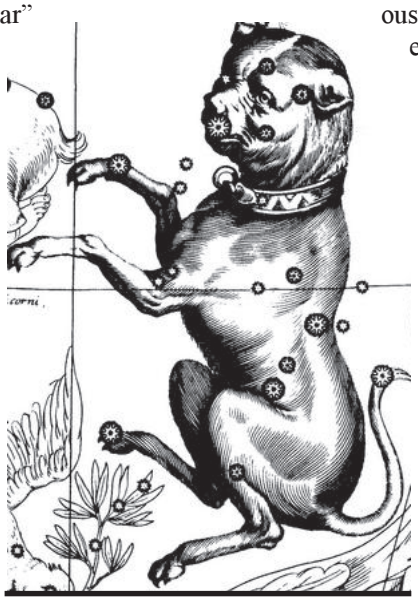
A recurring theme in this issue of *Press for Conversion!* is that military weapons systems are often named after powerful, mythical characters, animals or objects. The Navy's SIRIUS missile sensor system is a case in point. Why would they name it Sirius?

Sirius, from the Greek σειριοσ meaning "glowing,"[1] is the ancient name for the brightest star in the night sky. In fact, it is a binary star, with the largest of the pair being 23 times as luminous as our Sun.[2] Sirius had profound mythological and astrological significance in numerous ancient cultures. Egyptians called it Sothis, The Dog Star, and as early as the third millenium B.C., the rising of Sirius was used to signal the beginning of each new year.[3] This predictable return of Sirius each year gives us the phrase the "dog days of summer."[4] Apparently, some five thousand years ago, Sirius was called the "Star of Isis" or the "Nile Star" and there were some temples that, as astronomical observatories, alerted priests to the return of the Nile flooding—the symbolic source of this ancient nation's life:

"It was up to the Egyptian priests, who attended to the calendar, to sight the first rising of Sirius. At the ancient temple of Isis-Hathor at Denderah, is a beautiful statue of Isis, located at the end of an aisle flanked by large columns....

When Egyptian priests saw the light of Sirius upon the gem on the statue of Isis they would announce to the people that the New Year had begun.

There is an inscription on the temple which states: 'Her majesty Isis shines into the temple on New Year's Day, and she mingles her light with that of her father Ra [the Egyptian Sun god] on the horizon.'"[5]



Sirius: "The Dog Star"

Although upon examining various culture's myths there is a confusing array of conflicting tales associated with the star Sirius, one commonality stands out:

"In early European classical days, this constellation represented Laelaps, Acteon's hound; or sometimes the hound of Procris, Diana's nymph; or the one given by Aurora to Cephalus, so famed for its speed that Zeus elevated it to the sky. Most commonly, [the constellation] Canis Major [Latin for "big dog"] (or perhaps just the star Sirius) is Orion's hunting dog, pursuing Lepus the hare or helping Orion fight Taurus the bull, and is referred to in this way by Aratos, Homer and Hesiod."[6]

The fact that Sirius was so often seen as a large dog used by great heroes for hunting and fighting may be the simple reason why its name was chosen for a military tracking system. Using such a name elevates the military and its members to a powerful, heroic stature and gives them a mythic importance in the Manechian fight between good and evil.

However, there is certainly some baggage attached to Sirius that may or may not be welcomed the military. In ancient times, dogs were not seen as cuddly companions. They were tools used in hunting and killing prey, and they were vicious, bloodthirsty weapons that could tear an enemy to shreds without mercy. This meaning has come down to us in the expression "dogs of war." Besides being dangerous, dogs were also seen as dirty and disease ridden. It was perhaps for these reasons that many early astrologers and poets attributed a host of "evil influences" to Sirius and described it as:

- "The brightest be, but sign to mortal man of evil augury"
- "Terrific glory! for his burning breath taints the red air with fevers, plagues and death"
- "The rampant Lyon hunts he fast with dogge of noisome breath. Whose bale ful barking brings in bast pyne, plagues and dreerye death"
- "The dogstar, that burning constellation, when be brings drought and diseases on sickly mortals, rises and saddens the sky with inauspicious light"[7]

But ancient myths are just the shady beginnings of a convoluted path that some people are still treading, using the dubious beacon of Sirius to guide them. Some of these myths are so farfetched that it seems futile to even try to summarize, let alone make sense of them. Any attempt to do so leads straight into a bottomless quagmire of paranoid, delusory ideas about world history and extraterrestrial forces emanating from Sirius that have supposedly shaped it.

A web search for words like "sirius," "war" and "myth" yields countless articles on such disparate subjects as occult magic, satanism, UFOs, brainwashing and the symbolism of secret and dangerous cults as varied and illusive as the Illuminati, Freemasons and—far worse than these—

tems for supporting the development model of U.S. Infra-Red Search and Track system (IRST)."[10]

Thales Nederland described the SIRIUS IRST system by saying:

"*Funded by the Canadian and Netherlands Navies*, SIRIUS is being developed by Thales Nederland in cooperation with DRS Technologies Canada. SIRIUS' *primary function is to contribute to Local Area Defence* as well as to the ship's self defence…. SIRIUS' unsurpassed sensitivity and resolution invite for many other tasks, e.g. multispectral observation of coastal areas, *contribution to Theatre Ballistic Missile Defence*, floating mine detection, and Search and Rescue missions."[11]

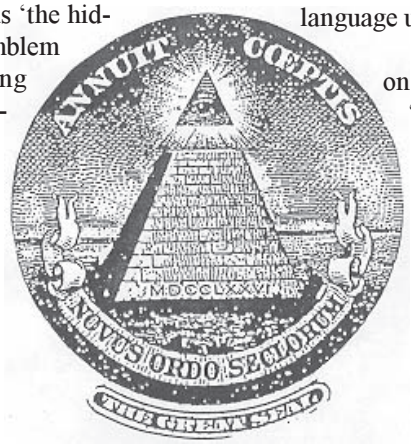
Because the above quotation notes that the "*primary function*" of SIRIUS is to "contribute to Local Area Defence," it is instructive to examine this phrase. When the Anti-Ballistic Missile (ABM) Treaty was signed by the U.S. and USSR in 1972, it prohibited country-wide ballistic missile

---

the CIA. Here are just two quotations from this cornucopia of paranoia swirling around the myth of Sirius:

"[Sirius is] regarded in occult circles as 'the hidden god of the cosmos.' The famous emblem of the all-seeing eye—seen hovering above the unfinished pyramid—is a depiction of the Eye of Sirius, and is a common motif found throughout Masonic lore. It is no secret that many of our nation's founding fathers were Freemasons, which explains the odd appearance of the Eye of Sirius on the dollar bill

Freemasons believe that civilization on Earth was initially formed by initiates from the Sirius star system, whom they equate with the Egyptian Trinity of Isis, Osiris and Horus."[8]



"All-seeing eye" of Sirius
Masonic symbol on U.S. dollar

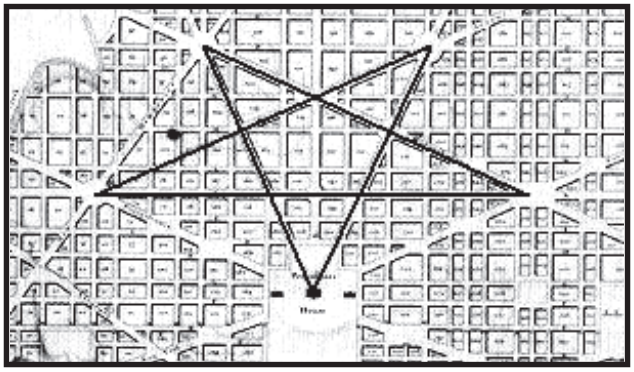
"Kenneth Grant, student of Aleister Crowley and founder of the 'Typhonian OTO' and its 'Cult of Lam,' writes in *The Magical Revival* that Crowley 'unequivocally identifies his Holy Guardian Angel with Sothis (Sirius), or Set-Isis.' Set, of course, will be familiar to those who've followed the career of Colonel Michael Aquino, who created the Temple of Set when he found Anton LaVey and his Church of Satan not serious enough in their devotion to the Left Hand Path.

Adam Gorightly, in 'Ritual Magic, Mind Control and the UFO Phenomenon,' writes how, in the 1950s and '60s, alleged [alien] contactee George H. Williamson is said to '[have] summoned forth certain denizens purportedly from Sirius, conversing to them in the same *Angelic* language used by John Dee and Aleister Crowley.'

Williamson claimed that a secret society on Earth had been in contact with Sirius for 'thousands of years, and that the emblem of this secret society is the eye of Horus, otherwise known as the all-seeing eye.'

In 'Sorcery, Sex, Assassination and the Science of Symbolism'… James Shelby Downard argues that a Sirius cult exists today at the highest levels of U.S. military intelligence. Downard says that the...Palomar Observatory is used for its rituals, which evoke those of ancient Egypt, and are performed in the star's focused light

And according to David Ovason's book *The Secret Architecture of our Nation's Capitol*, Freemasons oriented and consecrated Washington to the astrological representation of Lucifer, Sirius."[9]



And according to David Ovason's *The Secret Architecture of our Nation's Capitol, The Masons and the Building of Washington, D.C.* Freemasons oriented and consecrated Washington to the astrological representation of Lucifer, the Dog Star -- Sirius.

So, where does all this confusing mythology leave us with regards to understanding the military's choice of the word Sirius for a "missile defense" sensor system? Probably nowhere. But as we scratch our heads in astonished disbelief, we must at least acknowledge that although we ourselves may not believe any of these myths about Sirius, there are many who obviously *do* take them all-too seriously. Members of cults, even those that have evolved into huge institutions—like the CIA and the Pentagon—sometimes like to draw upon the potent, mythic symbolism of ancient history in order to further empower themselves, to puff up their self-image and/or to inflate their supposedly heroic and other-worldly place within the fabric of history.

References

1. *Wikipedia* - Sirius <en.wikipedia.org/wiki/Sirius>
2. *Encyclopaedia Britannica* - Sirius <www.britannica.com>
3. Canis Major <homepage.mac.com/kvmagruder/bcp/aster/constellations/CMa.htm>
4. The Dog Days of Summer <wilstar.com/dogdays.htm>
5. "Sirius - The Dog Star - Inundation of the Nile" <www.crystalinks.com/inundation.html>
6. Canis Major <www.nationmaster.com/encyclopedia>
7. Sirius <www.winshop.com.au/annew/Sirius.html>
8. Adam Gorightly, "Ritual Magic, Mind Control and the UFO Phenomenon." <www.conspiracyarchive.com/UFOs/UFO_Ritual_Magic.htm>
9. Jeff Wells, "Sirius: America's dog star days." <www.niburu.nl/index.php?showarticle. php?articleID=8134>

defense systems. However, it *did* allow each country to build two "limited systems" for defence against ballistic missiles. In 1974, the treaty was changed to allow the two countries to have just one "local area defense" system each. The Soviets, having lost 25 million citizens to war just a few short decades earlier, developed an ABM system to protect Moscow. This limited system still exists. For its part, the U.S. briefly deployed its own limited ABM system to protect a high concentration of Intercontinental Ballistic Missiles based in North Dakota, but "dismantled it when it was deemed cost-ineffective."[12]

Nowadays, the term "local area defense" is most often used to refer to naval ABM systems such as those aboard the U.S. Navy's AEGIS-class of warships. These AEGIS weapons systems are designed to use the latest "Standard Missiles" to:

> "intercept short- and medium-range theater ballistic missiles in the final, or descent, phase of flight, so as to provide *local-area defense* of U.S. ships and friendly forces, ports, airfields and other critical [military] assets ashore."[13] (Emphasis added)

Why Build SIRIUS in Canada?

Why would DRS Technologies, a self-described "leading edge" producer of "defense electronics," raking in over a US$1 billion in new contracts per year,[14] entrust the SIRIUS "missile defense" work to its Canadian subsidiary?

(1) *The Spar Connection*

The Canadian division of DRS was not new to the SIRIUS "missile defense" project when it received that contract in 2000. In fact, this Canadian division had been purchased by DRS from Spar Aerospace Ltd. for $29 million in 1997. Back when it was a division of Spar, it was producing "thermal vision devices for surveillance and weapon targeting systems" for the governments of Canada and the Netherlands.[15]

Before becoming part of DRS Technologies, this facility was Spar's Applied Systems Division. In January of 1995, it received a $10.2 million contract to create:

> "the processing subsystem for the Netherlands SIRIUS Naval Infra-Red Search and Track system. This joint programme between Canada and The Netherlands comprises the development, construction and trials of a dual-band passive long range infrared search and track system to enhance the horizon search capabilities of surface ships against sea-skimming anti-ship missiles. The Sirius system will operate in the mid-wave and long-wave infrared regions and incorporates the latest focal plane array and signal processing technologies."[16]

This 1995 article, reveals that the team behind the SIRIUS system was comprised of government and corporate partners from the two countries. The prime contractor was the same Hollandse Signaalapparaten B.V. (now Thales Nederland) that later contracted DRS FSC to help it produce SIRIUS. The program's "scientific advisor" was the Physics and Electronics Laboratory (FEL) of the Toegepast Natuurwetenschappelijk Onderzoek (TNO).

TNO, is translated as "Applied Scientific Research." It is the Dutch government's prime conduit for funneling tax dollars into corporate research and development. TNO has five "core areas," of which one is called "Defence, Security and Safety."[17]

The Netherlands' TNO is therefore roughly equivalent to Defence Research and Development Canada (DRDC) which is run by Canada's Department of National Defence (DND).

(2) *Canadian Government Connections*

(A) DRDC

Along with the Spar Aerospace subsidiary near Ottawa, DRDC was among the "key Canadian team members" of the SIRIUS project. By the mid-1990s, at least three separate sections of DRDC were doing R&D on SIRIUS:

- Defence Research Establishment-Atlantic (in Dartmouth, NS)
- Defence Research Establishment-Valcartier (in Valcartier, QC)
- Naval Engineering Test Establishment (in Lasalle, QC).[18]

However, the origins of this project can be traced back at least as far as 1988-1990. At that time, Paul A.S.Ward, now an Assistant Professor in the Department of Electrical and Computer Engineering at the University of Waterloo, was a Design Engineer at Applied Microelectronics (AM), in Halifax, Nova Scotia. His online biography reveals that he did "core preliminary work" for AM that led to their "receiving the contract for the development of the memory subsystem for the Next Generation Signal Processor (NGSP) for Defense Research Establishment Atlantic (DREA)."[19]

We know from a footnote referring to the NGSP project in DRDC's 1999-2000 report, that funds

> "originally allocated to this project have been transferred to the Navy's SIRIUS project for procurement of an alternate signal processor."[20]

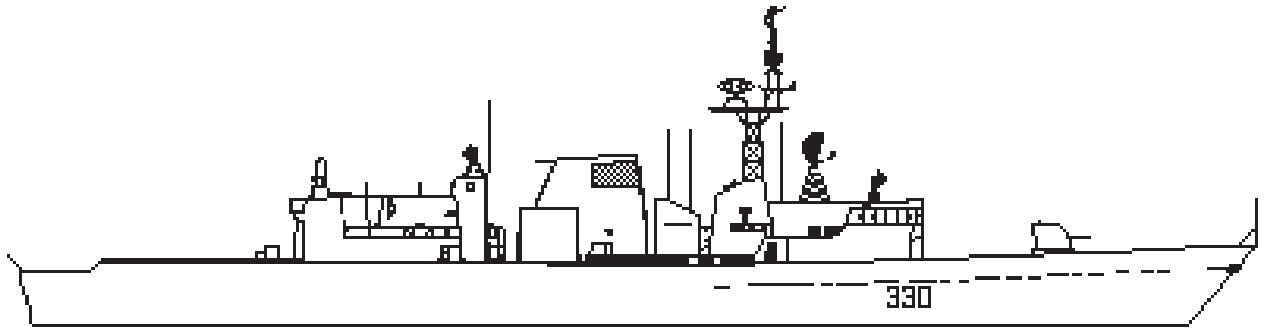
Industry Canada's *Canadian Microelectronics Capability Guide,* which lists the NGSP as one of Applied Microelectronics' two "major achievements," also says that it was "developed for the Canadian Department of National Defence."[21]

DRDC's Atlantic branch, DREA, was involved in the NGSP project by 1990-1991. At that time Charles Pilkington, now of Pilkington Software, was a Senior Systems Analyst at Array Systems Computing which worked on the project for DREA.[22]

It is unclear, however, how much DRDC's three branches were chipping in for this R&D. Besides shelling out public resources to aid this project, these centres proffered their expensive research facilities and paid the salaries of staff scientists who put their genius to the task. We may never know how many tax dollars went into this project.

However, we do know that in DRDC's Annual Reports for 1999-2000 and 2000-2001, there is mention of a "Technology Demonstration Project" called the "Next Generation Signal Processor, Advanced Development Model." Beginning in 1997, DRDC's budget for this project was about $8 million. DRDC also gave this project $4 million in fiscal year 1999-2000[23] and $2.6 million in fiscal year 2000-2001 for "contracts alone,"[24] which suggests that there were additional funds for this project besides the $2.6 million for contracts.

As recently as April 27, 2005, DRDC was still promoting SIRIUS. That was the date that the DRDC facility in Valcartier, Quebec, was scheduled to



The Canadian government's idea was to use their SIRIUS "missile defense" technology to upgrade Canada's twelve Halifax-class frigates. Apparently, these state-of-the-art warships, built for a whopping $9.4 billion, between 1992 and 1996, are no longer good enough for our war-fighting needs. According to the Canadian military -- as well as Liberal and Conservative politicians alike -- Canada's frigates are in such a desperate need of additional high-tech systems, that a mere $3-billion upgrade will just not be enough.

hold an event as part of its Science and Technology Matinée program, which

> "highlights new technological breakthroughs and strategic partnerships through presentations given by guest speakers and scientists from Defence R&D Canada."[25]

The subject at hand this spring was the "Development of a Panoramic Optronic Sensor for the Navy: SIRIUS." The speakers were Denis Dion, a DRDC scientist, and Yves Boudreault, from DRS Technologies.[26]

(B) DND

To explain its rationale for funding SIRIUS, the Chief of the Defence Staff's annual report (2002–2003), had this item in its "Capital procurement" section:

> **Advanced Electro-Optic Sensor**
> The current anti-air warfare sensors fitted to Canadian ships rely heavily on radar and electronic support measures to provide early detection and tracking of air threats and cover only the radar frequency band. There are no electro-optic sensors fitted. To address this deficiency, a joint Dutch/Canadian development project was initiated to design, develop and produce an advanced electro-optic threat-warning sensor. *This developmental project is nearing completion and will enable ships to detect and track current and emerging air threats using the infrared spectrum*."[27]

Each year, in its "performance report," DND gives the "currently estimated total cost" of its various "capital projects," and each year the amount estimated for the production of various weapons systems continued to rise. In the case of "the Advanced electro-optic sensor" (SIRIUS), the 1998-1999 estimate was $16,256,000.[28]

However, each successive year, as DND dispensed more and more financial resources into this aspect of their naval-based "missile defense" dream, the project's estimates, like the tide of its actual expenses, kept rising. In 2002-2003, when still listed as being in its "definition phase," DND estimated that the project would eventually cost just over $32 million. They also revealed that by the end of March 2003, the actual cost of this project had already been over $28.8 million.[29]

However, just one year later, in DND's 2004-2005 *Report on Plans and Priorities* (RPP), the SIRIUS project was listed as being in its "close out" phase. Its estimated total cost was then being projected at about $37.7 million. That was more than twice the estimated cost given just six years earlier. DND's 2004-2005 report said they would spend $5,647,000 on the project in 2004-2005, but included no estimates for subsequent years.[30]

The latest DND RPP (2005-2006), submitted in March 2005, lists the "Advanced Electro Optic Sensor," and 60 other projects, that "over the next three years…will exceed their departmental delegated project approval level."[31] In the case of the Advanced Electro Optic Sensor, it will exceed this level in 2005-2006.

So, according to these documents alone, DND has already spent almost $40 million from its "capital procurement" budget on the SIRIUS project. The actual total cost, however, is probably much higher because we cannot be sure how many additional dollars were spent on SIRIUS by DRDC during the research and development phase.

Let the Real Spending Begin!

Now that more than $40 million has been put into developing SIRIUS, the real spending spree can begin in earnest. DND has reported that it wants an *additional* $234 million for the SIRIUS project! The "target date" for getting the "Effective Project Approval" (i.e., "spending authorization for the entire scope of work") was listed as the "Fall of 2004." That "target" was set in November of 2003, when DND's "Strategic Capability Investment Plan" was published.[32]

DND planned to spend about $5 million on SIRIUS in fiscal year 2004-2005, and to increase the project's annual budget in subsequent years. By fiscal year 2008-2009, DND envisions that SIRIUS spending will be about $66 million. This will leave DND with a mere $105 million to finish the $233.2-million project. Recalling the five-fold increase in the total estimated budget that occurred during the preliminary phase of SIRIUS, it seems doubtful that DND will live up to its new promises.

However, considering the Liberal government's February 23, 2005, announcement that it will give an additional $12.8 billion to DND over the next five years,[33] the asked-for quarter of a billion dollars for the SIRIUS project's completion seems relatively puny, and relatively secure.

Getting SIRIUS aboard Canadian Frigates

On March 18, 2003, Vice Admiral Ron Buck, DND's Chief of the Maritime Staff appeared as a witness to give evidence to the Standing Committee on National Defence and Veterans Affairs. In the context of ship sensors, like radar, he was asked to compare the "capabilities intended" for the U.S. DDX family of warships with "current Canadian capabilities." Admiral Buck replied that the U.S. had made progress in the ships' "command and control" functions, that is, he explained, in their

> "actual ability to receive information, fuse it, assess it, analyze it and display it—and…in that particular area, *we remain at the forefront*. In that context, *our concern would be to ensure capability between wherever the U.S. might go and wherever we might go*. Clearly, it also relates to both sensors and weapons—and I include not just radar systems, but infrared systems and other types of sensors. In fact, there is a very effective infrared system that has been a collaborative arrangement between Canada and the Netherlands called *SIRIUS, which we are very seriously looking at in terms of acquiring it.*"[34] (Emphasis added)

When DND's "Strategic Capability Investment Plan" was released in November of 2003, it gave a rationale for the SIRIUS project.

> "The addition of this system to the HALIFAX class [frigates] will enable [them] to be able to detect and track the current and emerging air threats and provide situational awareness at night."[35]

DND's idea is use their SIRIUS "missile defense" technology to help upgrade Canada's twelve Halifax-class frigates. Apparently, these 12 state-of-the-art warships, built between 1992 and 1996 for a whopping $9.4 billion, are no longer good enough for Canada's warfighting needs. According to

Billions More for New Canadian Warships

CADRE Project

CADRE (the Command & Control and Air-Defence Capability Replacement project) is meant to replace Canada's 'Tribal' class destroyers whose primary role shifted to area air-defence (protecting naval Task Groups from hostile aircraft and sea-skimming missiles) after the TRUMP [Tribal Update and Modernization Program] refits between 1987 and 1995 [that cost $1.4 billion]. Although the area air-defence capability had not previously existed, the Department of National Defence (DND) now regards "wide area air defence" as part of "Canada's core naval capabilities." There has been endless repetition of the need to sustain this critical capability, yet Canada's Maritime Staff itself places its emphasis elsewhere (e.g., Canada's three recently approved Joint Support Ships, which have been allocated $2.1 billion). There is also doubt as to whether CADRE's command and control role and its area air-defence role can be realistically combined within one hull.

Iroquois or 'Tribal' class destroyer

Canada may replace its Tribal Class Destroyers for $5.25 billion.

Among the many tasks envisioned for Canada's next generation of Destroyers will be "integrated battlespace management," a precision, land-attack capability and area air-defence, including a theatre ballistic missile defence role.

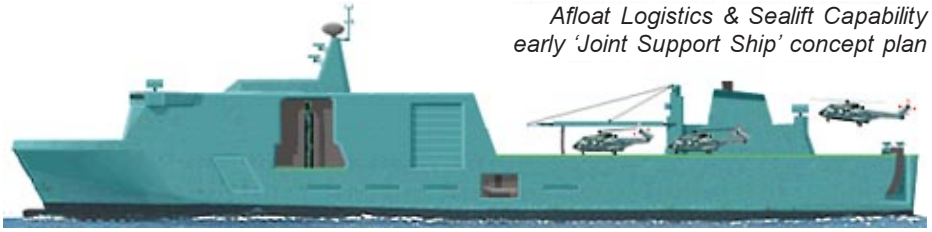
Tribal Class Destroyers

The Tribal destroyers are well-armed vessels. In addition to their 76mm main gun, the Tribals have a 6-barrelled 20mm Phalanx gun. For anti-aircraft duties, a vertical-launch system for 29 Standard SM-2 guided missiles is mounted in the deck forward of the main gun. For anti-submarine warfare, a CH-124 Sea King helicopter is carried as well as two triple-tube launchers for Mk46 guided torpedoes.

Bloat and Float

The $5.25B CADRE project's awkward acronym first referred to C^2 (Command and Control). Conceptual inflation has now expanded it to C^4ISR—Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance. If that were not enough, 'integrated battlespace management' has been lumped in and area air-defence has been extended to include a *theatre ballistic missile defence role*, along with (rather inexplicably) a new precision land-attack capability.

Afloat Logistics & Sealift Capability early 'Joint Support Ship' concept plan



Canada's three new "Joint Support Ships" will cost $2.1 billion.

Source: DND 101, Canadian American Strategic Review Website: <www.sfu.ca/casr/101-navcadre.htm>, <www.sfu.ca/casr/101-navalsc.htm> and <www.sfu.ca/casr/101-navddh.htm>

the military, as well as Liberal and Conservative politicians, Canada's frigates are now in such desperate need of more high-tech systems that a $3-billion upgrade may not be nearly enough.

Known as the "Halifax Modernization Project," the frigate upgrade includes the addition of SIRIUS technology, said Chris Wattie, a senior national reporter on defence and military affairs for the *National Post*. Writing, as he sometimes does, in such unabashedly, pro-military magazines as *Frontline Canada*, Wattie proudly tells his readers that DND's "helicopter-carrying" frigates will combine their "traditional anti-submarine capabilities" with advanced new systems designed to counter surface and air threats:

> "The ships will also get a new infrared-video search and track system called SIRIUS, which will continuously search the horizon around the ship for incoming threats in all kinds of weather and sea conditions."[36]

Wattie who, *Frontline* tells us, "was recently 'embedded' with the Royal Canadian Regiment in Kabul,"[37] somehow neglected to mention that SIRIUS was a critical part of the "missile defense" aspirations of Canada's Navy. Perhaps, like most Canadians, Wattie just didn't know any better.

The mainstream media has not exposed Canada's role in creating, funding and developing "missile defense" weapons systems such as SIRIUS. On the contrary, the corporate media perpetuates the widespread mythology that Canada is not now, nor has it ever been, a member of the "missile defense" club. And, although SIRIUS will help to integrate Canada's navy into missile-defense-capable U.S. and NATO fleets, the myth prevails that Canada has rejected any future role in "missile defense" deployment.

The largely-unreported and therefore hidden reality is that thanks to the government, and its generous support to this country's scientific and corporate communities, Canada has had a longstanding involvement in the funding, creation and development of "missile defense" systems. The SIRIUS tracking sensor, which will eventually cost taxpayers more than a quarter of a billion dollars, is an expensive case in point. *Thanks Canada.*

References

1. "All Companies by Country," Thales website. <www.thalesgroup.com>
2. DRS Advertisement: "A New Wave Of Solutions." <www.drs.com/news/advertisement.cfm?Advertisement_ID=27>
3. Thales Defense Business Area Newsletter, June 2001. <www.thalesgroup.com/all/pdf/d_newsletter_0106.pdf>
4. *Business Wire*, May 2, 2000. <www.findarticles.com/p/articles/mi_m0EIN/is_2000_May_2/ai_61848380>
5. *Stockholm International Peace Research Institute (SIPRI) Yearbook: Armaments, Disarmament and International Security* (Oxford: Oxford Univ. Press, 2002)
6. *Business Wire*, op.cit.
7. *SIPRI Yearbook*, op. cit.
8. *Business Wire*, op.cit.
9. Ibid.
10. Joris Janssen Lok, "Sirius sensor system integration delayed to 2001," *Jane's International Defence Review,* October 2000, cited by Martin Broek and Frank Slijper, "Theatre Missile Defence: First steps towards global missile defence," May 2001. <www.antenna.nl/amokmar/pdf/PENN-TMD01.pdf>
11. SIRIUS: Long range infrared search & track system <www.thales-naval.com/pdf/sirius.pdf>
12. "Ballistic Missile De-fense," *Almanac of Policy Issues*, updated May 14, 2001. <www.policyalmanac.org/world/missile_defense.shtml
13. Steven A. Hildreth and Amy F. Woolf, "Missile Defense: The Current Debate," CRS Report for Congress, February 25, 2002. <policy.house.gov/assets/def-missiledefense.pdf>
14. DRS Media release, "DRS Technologies Reports Record Third Quarter and Nine-Month Results," Feb. 9, 2005. <www.drs.com/press/archivelist.cfm?PRESS_RELEASE_ID=1566>
15. "DRS to purchase SPAR Aerospace for $29 million," October 6, 1997. <optics.org/articles/news/3/10/1>
16. *The Wednesday Report*, Jan. 11, 1995. <www.thewednesdayreport.com/twr/twr1v9.htm>
17. TNO website. See <www.tno.nl> for more information.
18. *The Wednesday Report*, op. cit.
19. Paul A.S.Ward, Assistant Prof., Dep't of Electrical and Computer Engineering, Univ. of Waterloo <www.shoshin.uwaterloo.ca/~pasward/cv.pdf.>
20. DRDC, Annual Report, 1999-2000. <dsp-psd.pwgsc.gc.ca/Collection/D1-14-2000E.pdf>
21. *Applied Microelectronics*, Canadian Microelectronics Capability Guide, Industry Canada <strategis.ic.gc.ca/pics/it/editted.pdf.
22. CPSOFT Experience Summary <www.cpsoft.com/projects/overview.html>
23. DRDC, 1999-2000, op.cit.
24. DRDC, Annual Report 2000-2001 <dsp-psd.pwgsc.gc.ca/Collection/D1-14-2001E.pdf>
25. News and Events, Matinées Science and Technology <www.drev.dnd.ca/e/news_e.asp>
26. Ibid.
27. Annex C: Capital procurement, Annual Report, Chief of the Defence Staff, 2002–2003. <www.cds.forces.gc.ca/pubs/anrpt2003/AnnexC_e.asp>
28. DND, Performance Report, 1998-1999. <www.tbs-sct.gc.ca/rma/dpr/98-99/ND98dpre.pdf>
29. DND, Performance Report, 2002-2003. <www.tbs-sct.gc.ca/rma/dpr/02-03/ND-DN/ND-DN03D02_e.asp>
30. DND, Report on Plans & Priorities 2004-2005. <www.tbs-sct.gc.ca/est-pre/20042005/ND-DN/ND-DNr4501_e.asp>
31. Table 8a: Details on Project Spending - Capital Equipment Program, RPP 2005-2006, DND. <www.tbs-sct.gc.ca/est-pre/20052006/ND-DN/ND-DNr5603_e.asp>
32. DND Strategic Capability Investment Plan, Capital Equipment Annex, 2004 Update, Equipment Projects Seeking Decisions 2004 and 2005, Nov. 2003. <www.vcds.forces.gc.ca/dgsp/pubs/rep-pub/ddm/scip/annex04-05/annex04_e.asp>
33. Budget 2005: CDA [Conference of Defence Assoc.] Analysis <www.cda-cdai.ca/misc/Budget_2005_CDA_Analysis.htm>
34. Standing Committee on National Defence & Veterans Affairs, Mar. 18, 2003. <www.parl.gc.ca/InfoComDoc/37/2/NDVA/Meetings/Evidence/NDVAEV14-E.HTM>
35. Strategic Capability Investment Plan, Capital Equipment Annex 2004 Update <www.vcds.forces.gc.ca/dgsp/pubs/rep-pub/ddm/scip/annex04-05/ctdyn_e.asp?ct=4>
36. Chris Wattie, "The Halifax Class Modernization Project," *Frontline-Canada*, Nov/Dec 2004. <www.frontline-canada.com/pdfs/Halifax_5_04.pdf>
37. Ibid.

SIRIUS