

Canadian and Israeli Defense -- Industrial and Homeland Security Ties: An Analysis

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Abstract

This report examines specific recent linkages between Canada and Israel in the Homeland Security field.

To this end the paper is divided into: (1) a short overview of the general context impelling the growth in Canadian and Israeli commercial relations; (2) a look at some of the institutionalized cooperation frameworks established that regulate the Canada-Israel relationship; and (3) an examination of the private sector benefits of this cooperation in the homeland security and defense industrial realm.





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Introduction

The March 2008 signing of the "Declaration of Intent Between the Department of Public Safety and Emergency Preparedness of Canada and the Ministry of Public Security of the Government of the State of Israel" marked the latest stage in the accelerated rapprochement between Canadian and Israeli security establishments in recent years. This increasingly close relationship is being driven by a number of processes requiring further study. While some attention has been placed on the 'pro-Israel lobby' in Canada as a source of such shifts, it is also important to take into consideration important changes in the global political economy that set the context for significant convergences in the interests of both public and private actors in Canada and in Israel.

Some key factors to consider along these lines, include: the increasing shift in both countries towards neoliberal models of capital accumulation that promote greater reliance on export-oriented growth strategies, the search for new markets, the increasing importance of foreign direct investment in stimulating private sector expansion, and the heightened salience of free-trade agreements as a means of 'locking-in' such market logics. Of course, these are all changes that are characteristic of globalization more broadly, but are nonetheless important to consider in charting the steady growth, institutionalization and consolidation of Canada-Israel relations and the specific nature of these ties. It is important to note, however, that these more general shifts do not tell the full story about the unique specificities and timing of this Canadian-Israeli rapprochement.

For such an account, more attention needs to be paid to four closely intertwined factors, including: (1) the growing interdependence of both countries with the US-economy since the 1980s (including: the formalization of trade agreements, the important presence of Canadian and Israeli firms on the NASDAQ, and increasing US private-sector involvement in both countries); (2) the construction of a "War on Terror" by neoconservative currents in North America and the related growth of a booming continental 'homeland security' market; (3) the Israeli desire for 'normalization' and the role of market-oriented strategies in achieving this policy objective (with a particular appreciation of the specialized Israeli-niches in security and high-tech in generating two-fold benefits to Israel in terms of economic growth and diplomatic legitimation/leverage); and (4) Canada's special relationship with the USA and the multiple pressures (including the introduction of US-style foreign-policy lobbying models) that are pushing for a greater harmonization of Canadian positions in international forums with those of the US.

This report examines some of these dynamics, though it leaves the bulk of its content and analysis to chart the specific linkages between Canada and Israel in the Homeland Security field. To this end the report is divided into: (1) a short overview of the general context impelling the growth in Canadian and Israeli commercial relations; (2) a look at some of the institutionalized cooperation frameworks established that regulate the



Canada-Israel relationship; and (3) an examination of the private sector benefits in the homeland security and defense industrial realm of this cooperation. While the report doesn't highlight the specific impact of this relationship on Israel's continued and systematic violation of Palestinian human rights, it should be noted that consideration of such consequences needs to become central in any review and assessment of both existing and future public or private agreements regulating Canadian and Israeli relations. This is particularly relevant in a context where Palestinian civil-society has called for a comprehensive boycott, divestment and sanctions campaign against Israeli state institutions and companies until it recognizes its obligations to the Palestinian people under international law.

Section I: Globalizing Economic Vistas, Charting the Growth of the Canadian and Israeli Trade and Investment Partnership

Israel's embrace of neo-liberal market principles began in the mid-1980s with the adoption of an Economic Stabilization Plan (ESP) on 1 July 1985 by the 'national unity government' then in power. The 1970s and early 1980s had seen a considerable slowdown in growth, characterized by high rates of inflation that reached 373.8% in 1984. However, as many analysts have pointed out, the origins of Israel's transformation into a hub of the global telecommunications revolution can be traced to the late 1960s. This period marked an important turning point in the Israeli government's increasing willingness to subsidize military-industrial research and development (R&D) in the wake of the June 1967 war and the resultant French embargo on arms shipments. Though the development of an 'indigenous' military-industrial sector can be traced to the pre-state experience of the Yishuv (the Jewish settlement period), it wasn't until the late-1960s that the military-industrial component became a primary focus of state spending.²

While the Israeli economy generally stagnated in the 17 years following the '67 war, the Israeli military-industrial sector saw considerable growth – a tendency that was helped along the way by massive grant-in-aid transfers, R&D partnerships and unmatched markets that were all provided to Israel by virtue of its increasing ties to the enormous US security establishment. The Israeli orientation towards high-tech was accelerated after the experience of the October 1973 war. It was given definitive institutional support with the establishment of the Office of the Chief Scientist** that same year and in the eventual adoption of the "Encouragement of Industrial Research and Development Law 5744" in 1984. In 1985, Israel became the first country to sign a free trade agreement with the

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^{*} According to a brochure developed by the Israeli Ministry of Industry, Trade and Labour, the Office of the Chief Scientist was designed: "to assist in the development of new technologies in Israel, as a mean [sic] of fostering the Israeli economy, encouraging technological entrepreneurship, leveraging Israel's science-skilled resources, supporting high added value R&D, enhancing the knowledge base of Israeli hi-tech industries and promoting cooperation in R&D both nationally and internationally" (Office of the Chief Scientist Brochure – Ministry of Industry, Trade and Labour, 2006).



United States, further cementing an alliance that had gained increasing salience during the last half of the Cold War.^{3†}

It was in the 1980s that the Canadian state also began to undertake a progressive liberalization of its own economy, culminating with the 1988 Free Trade Agreement with the USA. While the 1970s witnessed a stagnation in Canada-Israel relations, the 1980s saw the emergence of steadily growing bilateral relationships in private-sector investments and trade. Canadian firms like Nortel began working with Israeli telecommunications partners, while Israeli financial institutions like Bank Leumi set up operations in Canada during this period. In August 1985, Israel's ambassador to Canada Eliashiv Ben-Horin set the business-oriented tone of the new relationship, by stating that: "Israel needs more trade with Canada and fewer charitable donations to turn around its ailing economy." A month earlier, a Canadian delegation consisting of Canadian businessmen, the National Research Council (NRC) and provincial representatives had visited Israel at the urging of the Canadian trade commissioner in Tel Aviv. The delegation met with 100 Israeli firms. Of particular note was a technology transfer program initiated during the trip that was designed to identify relevant Israeli technological expertise – mainly in the agricultural realm - for some 20 Canadian partners headed by the National Research Council, the Department of External Affairs, and other Canadian public and private sector stakeholders.⁵

By the late 1980s, Israel had effectively become Canada's fastest growing trade partner in the Middle East and North Africa - though the overall trade-volume with other countries in the region, largely based on Canadian imports of petroleum, continued to be larger. In the late 1980s, Canada's Claridge Inc. – of the Bronfman and Kolber family trusts – became one of the first major foreign investors in the newly liberalized Israeli economy, inserting some \$100-million in investments into local companies. Claridge's investments would grow to nearly \$1-billion by the late-1990s as Canada and Israel drew closer (including the purchase of a 35% share in Koor Industries, one of Israel's largest conglomerates).

In August 1993, the two governments signed a 'Memorandum of Understanding on Economic Cooperation.' Over the course of the next year, the Premiers of Ontario (Bob Rae) and Alberta (Ralph Klein) traveled to Israel to further cement growing economic ties between the two important Canadian provinces and Israel. The visits emphasized agreements in energy, communications, medical supplies, construction, agriculture and other fields. It was in this context that a \$6-million dollar a year bilateral Canada-Israel Industrial Research and Development Fund (CIIRDF) was established in 1994 and

[†] According to former US ambassador to Israel, Martin Indyk: "The whole free trade agreement process was started with the US-Israel free trade agreement. Why? Because that was the only way... the Regan administration could get it through Congress was with AIPAC's help. And once they established the free trade agreement with Israel it became possible to get free trade agreements and that was the precursor to NAFTA and so on." (London Review of Books forum on 'The Israel Lobby' – transcribed at http://www.scribemedia.org/2006/10/10/transcript-israel-lobby/).



negotiations towards a free-trade agreement began in earnest. On 1 January 1997, the Canada-Israel Free Trade Agreement (CIFTA) came into force.⁸

The improved relationship made sense as a result of the important matchmaking that was occurring within the aforementioned sectors. Canadian telecom industry leaders like Nortel Networks and Newbridge Networks were among the first Canadian firms to explore the emerging opportunities in Israel's emerging high-tech economy by signing agreements with important Israeli communications firms like Telrad and Tadiran respectively. For both governments, the relationship was seen as an opportunity to further expand trade volumes and open up new markets in accordance with the prevailing economic logic of the 1990s. The relationship also made sense in light of both governments' unique positions in relation to the United States, which had emerged as the sole superpower in the post-Cold War period. By mid-2000s, Canadian and Israeli firms occupied the top two positions for the number of non-US listings on American stock exchanges. 10

While Israel remains a relatively insignificant trade partner for Canada in overall terms, trade volume between the two countries has doubled since 1996 and currently stands at over \$1.39-billion (2007). Furthermore, the level of bilateral foreign direct investment between the two countries fluctuates anywhere in a range between \$1-billion to \$4.5-billion annually. In recent years, and as already noted, this relationship has undertaken increasing strategic significance with a number of important partnerships forged in the 'homeland security' and defense-industrial sectors. This rapprochement is rooted in the increasingly close links that were fostered between the Canadian and Israeli security establishments under the governments of Paul Martin (2003-2005) and Stephen Harper (2006-present).

Section II: Important Institutional Frameworks For Canada-Israel Cooperation

Before undertaking a systematic review of some of the recent homeland security and defense-industrial partnerships between Canada and Israel, it is perhaps worth giving a general overview of the key government-to-government institutional mechanisms and agreements that regulate Canada-Israel relations in these fields. These relationships are in addition to a number of important private sector agreements and bodies that promote Canada-Israel economic links (including the Canada-Israel and Israel-Canada Chambers

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It is interesting to note that this figure is largely made up of a substantial real-estate sector interests involving Canadian investors in Israel and a number of large Israeli property management companies investing in Canada. The largest share of this total is taken up by Gazit Global which has invested an estimated \$2.1-billion in the Canadian real estate sector, with a particular emphasis on malls that host major corporate retailers as central anchor tenants. Through its Canadian subsidiary, First Capital Reality (FCR), Gazit holds 19.5 million square feet of gross leasable area in Canada amounting to a 'total enterprise value' of \$4.3-billion. Incidentally, it is worth noting that Moshe Ronen, who is also the chair of the Canada-Israel Committee (CIC), sits on FCR's Board of Directors.



of Commerce and the Canadian and Israeli trade and export offices located in each country).

The Canada-Israel Industrial Research and Development Fund (CIIRDF)

The CIIRDF was established through a "Memorandum of Understanding on Bilateral Cooperation in Private Sector Industrial R & D Entered into by The Government of Israel and The Government of Canada" that was signed in August 1994. The MOU commits both governments to:

(a) Promote the activities of their respective private sectors to increase the level of bilateral industrial research and development joint venture cooperation; (b) Facilitate the identification of specific projects or partnerships between Israeli and Canadian companies that could lead to industrial R&D cooperation; (c) Coordinate and focus suitable government resources and programmes to support closer commercial relations and industrial cooperation, including the establishment of a joint industrial R&D cooperation Initiative; (d) Give expression to this initiative through the establishment of a Canada Israel Industrial R&D programme (CIIRD) that will identify private sector interests, execute a complementarity study of Canadian and Israeli industrial R&D capabilities in priority sectors, and identify specific Canada/Israel matches for possible joint venture cooperation. 12

It also outlines the specific competencies of the CIIRDF outlining measures that it will undertake to facilitate such bilateral cooperation.

The agreement was renewed again after the positive assessment it received during a September 2004 evaluation report prepared by the Department of Foreign Affairs and International Trade (DFAIT). The report's authors concluded that:

"CIIRDF's objectives continue to be relevant to Canadian and Israeli companies, and that further public support of CIIRDF is appropriate...Our analysis revealed that most firms would not have conducted the R&D project without CIIRDF funding...Our analysis based on sales forecasts from eleven Canadian firms undertaking CIIRDF R&D projects since 1999, estimated that \$714.5 million in cumulative sales revenues and \$178.6 million in cumulative profits will likely be generated by 2013. The study concluded that these eleven projects have the potential to provide a return of \$18.7 million(1), consisting of \$1.9 million in royalties to CIIRDF and \$16.7 million in potential income taxes to the Canadian government, recovered from profits associated with commercialization of these projects."

Furthermore, the report notes the important role played by the agreement in fostering biotech and photonics clusters in Canada:

"CIIRDF has been instrumental in the development of photonics and biotechnology consortia in Canada, modelled (sic) after successful consortia in Israel. These consortia offer the opportunity for Canadian firms to conduct joint R&D efforts with members of Israeli photonics and biotechnology consortia. The Foundation has also played a central role in the establishment of a National Roundtable on Photonics in Canada."

Both governments expressed their interest in renewing the MOU during an April 2005 visit to Canada by Ehud Olmert. The revised agreement was signed in March 2006 by David Emerson (Canada's then International Trade Minister) and Alan Baker (Israel's then ambassador to Canada) at a ceremony held in Ottawa. ^{15 §}

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 $^{^{\}S}$ Due to its success, the CIIRDF framework was used as a model for the announcement in June 2005



The Canada Israel Free Trade Agreement (CIFTA)

Another important institutionalized framework for cooperation is provided by the Canada-Israel Free Trade Agreement (CIFTA), which is a goods-only based agreement and Canada's only FTA with a partner outside the Western hemisphere. As previously mentioned, trade volume has nearly doubled since the agreement's entry into force. Throughout the past decade available figures suggest that Canada has consistently suffered from a trade deficit with Israel – with the most recent figures for 2007 suggesting that the \$1.39-billion dollar total in bilateral trade consists of \$426.6 million Canadian in exports to Israel and \$959.3-million in Israeli imports to Canada. According to DFAIT's briefing on the subject Canada exports: "machinery, electrical machinery, paper and newsprint, plastics, wood, and aluminum" to Israel, while it imports "electrical machinery, pharmaceutical products, precious stones and metals, machinery, organic chemicals, and optical equipment." 16

It should be noted that the agreement can be read as controversial in strategic terms because of the way it defines the territory to which CIFTA is to be applied. While Israel's FTA with the European Union explicitly excludes territories occupied by Israel in 1967, the text of CIFTA leaves this definition more ambiguous, stating that the Canada-Israel agreement applies to the entire: "territory where [Israel's] customs laws are applied" (which technically would include the Occupied Palestinian Territories). Furthermore, Article 10.2 of the agreement relating to 'National Security' stipulates that nothing in the agreement is meant to impinge on the national security considerations of either state. While the agreement also states that CIFTA shall not prevent either party from pursuing "obligations under the United Nations Charter for the maintenance of international peace and security," no specific mechanism were put in place to honour of such commitments. It is worth pointing out in this context that bi-lateral agreements are generally not subject to parliamentary scrutiny in Canada. These are not agreements that parliament votes on, hence they are not transparent and are frequently not discussed prior to their implementation.

Canada-Israel Security Ties and the 'Declaration of Intent' on Public Safety

The extent of direct bilateral cooperation between Canadian and Israeli security establishments remains an understudied and underexplored topic of inquiry in both Canadian journalistic and academic circles. In September 1997, the nature of these ties briefly came under intense scrutiny after the Israeli Mossad botched an assassination attempt on Hamas organizer Khaled Meshal in Amman, Jordan (Meshal, who is now considered the Islamic Resistance Movement's political leader, was then its Jordanian

of DFAIT's newly established, \$20-million a year International Science and Technology Partnerships Program (ISTP). The program coordinates bilateral partnerships between Canada and emerging technological powers like China, India and Brazil. Modeled on the CIIRDF, the ISTP coordinates closely with this fund, including the promotion of trilateral R&D partnerships linking Canada, Israel and China in the development of agricultural technologies (for more information visit http://www.istpcanada.ca/home/index.html).



section chief). The agents sent to assassinate Meshal were carrying Canadian passports. Norman Spector, Canada's first Jewish ambassador to Israel (1992-1995), alleged publically at the time in the pages of the Globe & Mail and the Toronto Star that the use of Canadian passports was something that the Canadian government willfully ignored in exchange for Mossad intelligence on immigrant and refugee claimants seeking asylum in Canada. While the 'Operational Audit of CSIS Activities' for 1997-1998 notes that the Security Intelligence Review Committee (SIRC) found no evidence of such 'intelligence bartering,' suspicions in Canada and the Middle East weren't allayed. Faisal Kutty, a Toronto-based lawyer, noted at the time that a precedent had already been set as far back as 1973 when "a Moroccan waiter was misidentified as a member of Black September and killed by Mossad agents [who were carrying Canadian passports] in Lillehammer, Norway." ²¹

Despite the generally understated and secretive nature of Canada-Israel security links, the situation began to change under Prime Minister Paul Martin (2003-2005), who actively began fostering closer ties with Israel (most famously marked by shifting Canadian voting patterns in support of Israel at the UN). This rapprochement became increasingly formalized over the course of 2005 in matters relating to security. A number of important mutual visits by Canadian and Israel security establishment representatives took place that year. In late February and at the beginning of March 2005, a delegation comprised of 13 Canadian Space Agency (CSA) and Canadian aerospace industry representatives visited Israel. The CSA signed a 'Technology and Science Cooperative Agreement' with its Israeli counterpart, the Israel Space Agency (ISA), while Canadian aerospace firms met with representatives of important potential Israeli partners in this sector, including Rafael, Elta, Israeli Aerospace Industry's Mabat division and Elbit's Aluf.²³

The CSA visit also coincided with a separate trip by 32 Canadian police-chiefs to Israel that was hosted by the Israeli Police and the Israeli Ministry of Internal Security. The police-chiefs were treated to "a demonstration of various Israeli High Tech security systems and products at an event in which 12 Israeli companies took part."²⁴ Israel's Economic Attache in Canada, Ephraim Shoham, coordinated both trips. These visits were followed in the fall by another visit by 39 Ontario police chiefs, a mission that was cochaired by Community Safety and Correctional Services Minister Monte Kwinter, York Regional Police Chief Armand LaBarge and Joel Richler, Chair of the Canadian Jewish Congress Ontario Region. ^{25**} Finally, in the summer of 2005, the Israeli Air Force (IAF)

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^{**} Other examples of cooperation in this realm include the RCMP, which "received training from International Security Instructors, a Virginia-based company that specializes in training law enforcement and soldiers. Advertising its 'hard won Israeli experience,' its instructors are 'veterans of Israeli special task forces from...Israel Defense Force, Israel National Police Counter Terrorism units [and] General Security Services (GSS or Shin Beit).' The company's elite list of clients includes the FBI, the US Army, the US Marine Corps, the US Navy Seals, and London's Metropolitan Police Service" (Klein, Naomi. *The Shock Doctrine: The Rise of Disaster Capitalism*. Toronto: Vintage Canada, 2008. Pg. 527). Finally, the Israeli Fire Service and their counterparts in Ontario have also been cooperating since 2004, including training provided to IFS personnel at the Ontario Fire College ("Ontario and Israel strengthen ties on emergency services," Ministry of Community Safety and





took part in Canada's annual 'Maple Flag' exercises at the Canadian Force's training facilities in Cold Lake, Alberta. The IAF sent 10 Israeli F16 Fighter Falcon fighterbombers, an IAF B707 and 150 crew-members to participate in the exercise. "Israel arrived two weeks early and is staying a few extra weeks to take advantage of Cold Lake Air Weapons Range, one of the world's largest unrestricted air spaces," explained Lieutenant Sonia Connock, the public affairs officer for the 'Maple Flag' exercise. 26

Since the Conservative government assumed office in February 2006 such security ties have only deepened. A number of senior cabinet members have traveled to Israel frequently in recent years in order to attend specialized 'security conferences' seeking to promote Israel as a model to emulate for homeland security 'products' and 'solutions.' Among the notable milestones were Foreign Affairs Minister Peter MacKay's speech at the Seventh Annual Herzliya Conference on the 'Balance of Israel's National Security' in January 2007‡‡ and Minister of Public Safety and Emergency Preparedness Stockwell Day's participation in the '1st International Security Forum of Ministers of Interior and Homeland Security' that was held in Jerusalem in late May 2008.

However, the strongest expression of this relationship to date has been the semi-formal institutionalization of direct Canada-Israel security cooperation through the 'Declaration of Intent' on 'public safety.' 28

This agreement was signed in Tel Aviv on 23 March 2008 by Stockwell Day on behalf of Canada's Department of Public Safety and Emergency Preparedness and by Avi Dichter on behalf of Israel's Ministry of Public Security. The agreement outlines key areas of cooperation that are of interest to both governments including:

Correctional Services, November 2006 -

http://ogov.newswire.ca/ontario/GPOE/2006/11/23/c7994.html?lmatch=&lang=_e.html).

The 11,600 square kilometre range—about half the size of Israel—is scattered with mock targets so realistic that it is described by Canadian forces as 'the world's largest Hollywood set.' This 'set' consists of traditional targets such as communications towers, control centres and nine fake airfields—but it also includes more urban structures, setting the tone for a new kind of war." (Elmer, Jon. "A New Kind of War: Alberta Stages Exercise Maple Flag." This Magazine, September 2005). #In his speech MacKay addressed the improvement in Canada-Israel relations, cooperation on antiterrorism, diplomatic support at the UN, the need to isolate Hamas and the need to move forward with the 'peace process' (including the 'creation' of a Palestinian 'state' through the bolstering of Mahmoud Abbas' 'government' in Ramallah). See the following citation for a full summary: "Peter MacKay, Minister of Foreign Affairs, Canada" at The 7th Herzliya Conference (January 2007 - http://www.herzliyaconference.org/Eng/_Articles/Article.asp?ArticleID=1711&CategoryID=223).

The conference panels focused mainly on the role of global cooperation in combating terrorism. A joint declaration about "Confronting the challenges to Homeland Security" was signed by the participants ("1st International Security Forum of Ministers of Interior and Homeland Security to convene in Jerusalem, 29-30 May, 2008 – Challenges to Homeland Security" – State of Israel Ministry of Public Security, May 2008 –

http://www.mops.gov.il/BPEng/MOPS+News/IntlConferencePressRelease_25_5_08.htm.



To prioritize and manage cooperation in the following areas within the responsibility of the Ministries: (i) Border management and security, including biometric applications; (ii) Correctional services and prisons; (iii) Crime prevention; (iv) Critical infrastructure protection; (v) Emergency management; (vi) Illegal immigration; (vii) Law enforcement cooperation; (viii) Money laundering; (ix) Organized crime; (x) Terrorist financing; and (xi) Trafficking in persons.²⁹

Evidently, the scope of the agreement is rather wide-ranging, though information on its specific contents remains vague. The DOI, stipulates that a bilateral 'Management Committee' would be established that would meet on an annual basis in order to identify priorities for the two governments and coordinate security arrangements between Canada and Israel.³⁰

The agreement seems to have been developed in light of a similar agreement concluded between Dichter and Michael Chertoff, the US Secretary of Homeland Security, in early February 2007. This 'memorandum of understanding' includes many similar provisions to the Canada-Israel agreement with the important difference that: (a) the scope of cooperation is somewhat more focused in the US-Israel agreement, and; (b) that the level of institutionalization seems to be less formal in the US case as the 2007 memorandum does not specify the establishment of a specific 'Management Committee' to coordinate activities. The trip to Washington came a day after Dichter addressed Canada's Public Safety and National Security Committee in Canada. While this 6 February 2007 Parliamentary session was held in camera, press reports suggest that Dichter argued for increasing cooperation in combating terrorism (the Committee minutes simply list the members of the committee who were in attendance and notes that this morning session lasted one hour and six minutes).³¹

An important impetus for concluding a 'homeland security' agreement between Canada and Israel seems to have been established in October 2007, when Dichter returned to North America to visit his Canadian and US Counterparts. During the visit, Dichter met Day in Toronto where the two agreed to move forward on an agreement for "cooperation in homeland security and counter-terrorism." To this end three working teams were established in early November 2007 to focus on "cooperation between the two ministries on the following subjects: Counterterrorism and Crime; Emergency preparedness; Border crossing security, focusing on biometric identification." Since the signing of the agreement, not much information has come out on the exact nature of these ties, leaving considerable room for further research.

Section III: Specific Canada-Israel Homeland Security Linkages

As noted above, Canada-Israel security relations have witnessed a significant rapprochement in the last five years. This cooperation is evident not only in the increasingly open cooperation between Canadian and Israeli public security establishments, but also in the proliferation of private homeland security (HLS) related and defense industrial (DI) partnerships. The burgeoning post-9/11 'homeland security' bubble – that has been spurred by increasing US spending on HLS technologies and US government procurement strategies favoring private HLS providers - has opened up a



vast \$130-billion potential market for small and medium sized HLS providers in North America.³³

The marketing of Israeli 'know how' has provided a particular edge in this regard and Israel has positioned itself as a major player in this niche market (in fact Leonard Cole's 2007 book *Terror: How Israel Has Coped and What America Can Learn* plays up this theme). The following section examines the general context of the Canadian-Israel rapprochement in this sector with a specific emphasis on aerospace, maritime and land-based security and surveillance technologies. However, a review of the general context of Canada-Israel HLS relations and conventional Canada-Israel military-industrial ties is first in order. The section ends with a look at Athlone Global Security, an important Canadian-based venture capital firm specializing in bringing Israeli HLS firms to North American market.

Homeland Security: Canada, Israel and the American HLS bubble

Canada and Israel share a close relationship in counter-terrorism technology development through the public institutional mechanisms already highlighted in the previous section. However, they are also part of a broader network of knowledge sharing and production relating to the development of 'counter-terrorism' technologies tied to Washington's 'Global War on Terror' since 11 September 2001. An example of such a global 'counter-terrorism' network is the US government's Combating Terrorism Technical Support Office (CTTSO).*** CTTSO is mandated by Congress to "pursue cooperative relationships in the areas of combating terrorism research and development with foreign governments." The CTTSO, "fields rapid combating terrorism solutions to meet continually evolving requirements defined by end users." To this end CTTSO seeks to 'leverage foreign experience, expertise, and resources in the fight against terrorists and their infrastructure.' CTTSO has therefore become an important meeting place for the coordination and harmonization of responses to perceived threats by the participating governments and various security agencies of Israel, Canada, the UK, Australia and Singapore.³⁴

In the Canadian context, the CIIRDF has also sought to facilitate the increasing coupling of Canadian and Israeli homeland security providers. There has been a notable proliferation in CIIRDF funding in recent years for such projects, marking an important shift in the program's funding orientation. Finally, the National Research Council's Industrial Research Assistance Program (NRC-IRAP) and other NRC agencies have been involved in a number of projects that have some Israelis HLS or DI connection, including the development of:

• Bomb detection technology: In June 2007, NRC-Aerospace organized the first deliberate controlled destruction of a pressurized Boeing 727 using a laptop bomb at the NRC's Uplands campus in Ottawa.

for the US's Technical Support Working Group (TSWG) and is involved in its Explosive Ordnance Disposal/Low-Intensity Conflict (EOD/LIC) program and Irregular Warfare Support (IWS) program.

^{***} CTTSO falls under the Assistant Secretary of Defense (ASD) for Special Operations and Low-Intensity Conflict and Interdependent Capabilities (SO/LIC & IC). It oversees program management





The explosion was part of a three-day exercise that brought together Canadian emergency response and security agencies, including the RCMP and DND, 8 Canadian security firms and Israel's Tidex Systems (the only foreign participant). Tidex displayed its iPlus technology, which converts 2D digital images into 3D models;³⁵

- EEG technology for 'mind and thought controlled computers': The project is run through the NRC-IBD, i.e. bio-diagnostic research facilities. Among the case studies considered is "the alertness of fighter pilots [in Israel which] is being monitored to improve safety during extended flights" (it's not clear from the available information the exact extent/nature of cooperation between Canadian NRC researchers and their colleagues doing similar studies on 'brain-computer interfaces' in Israel);³⁶
- Ocean and maritime technology: The NRC's Institution for Ocean Technology (NRC-IOT) is working with St. John's ocean technology cluster to assist it in a massive expansion of its share of the global ocean technology market (worth an estimated \$1.75 trillion annually). In 2006-07, the NRC-IOT, the Government of Newfoundland and Labrador, and OceansAdvance led the creation of a graphical cluster map for the ocean technology sector. The map concept was a direct outcome of an Israel-Newfoundland and Labrador Ocean Technology initiative in June 2006.³⁷

Traditional Canada-Israel Military-Industrial Links

According to DFAIT's annual 'Export of Military Goods from Canada' report, the annual export of controlled Canadian military products to Israel has fluctuated between \$300-thousand to nearly \$4-million dollars annually between 1997 and 2005. It is important to note that these figures only represent Canadian exports of regulated military products (including spare and replacement parts on existing contracts) and does not include imports of Israeli defense-industrial products and trade in non-regulated items. According to the DFAIT annual reports dating back to 1997, the following sums and types of military equipment have been transferred from Canada to Israel:

- 1997 (\$783,455) including ammunition for categories small arms and automatic weapons as well as large-calibre armaments such as projectile launcher systems and components; military vehicles such as armoured personnel carriers and military transport trucks, related equipment & components; Military vessels and specially designed parts and components such as engines, navigation systems and sonar equipment; Military aircraft and helicopters, including transport aircraft, aero-engines, parachutes and related parts and components; Electronic equipment for military use such as communications and radar systems; Imaging or imaging countermeasure equipment, including photographic, thermal imaging equipment and parts; 38 †††
- 1999 (\$677,683) and 2000 (\$919,588) castings; vehicle parts; avionics and aircraft parts; antennas and displays; scanner parts; actuator; 39
- • 2001 (\$660,190) – castings; vehicle parts; CW defence equipment; components; aircraft parts; antennae & displays; 40
- \bullet 2002 (\$3,512,845) castings; armored busses and ambulances; CW defense equipment components; ship control components; antennae, displays; ECM components; production equipment; simulation software; other software;
- 2003 (\$321,646), 2004 (\$389,889) and 2005 (\$3,968,144) Smooth-bore weapons with a calibre of 20 mm or more, other weapons or armament with a calibre greater than 12.7 mm, projectors and accessories; fire control, related alerting and warning equipment, and related systems; test, alignment and countermeasure equipment specially designed for military use; and specially designed components

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nature of Canadian exports to the Israeli military, as it is possible that only small subcomponents or elements of the systems mentioned above are involved.



and accessories; chemical or biological toxic agents, riot control agents, radioactive materials, and related equipment, components, materials; Vessels of war, special naval equipment and accessories, and components specially designed for military use; Aircraft, lighter-than-air vehicles, unmanned airborne vehicles, aero-engines and "aircraft" equipment, related equipment and components, specially designed or modified for military use; Electronic equipment not controlled elsewhere and components; ^{‡‡‡} and software. ⁴²

A number of Canadian based defense-industrial producers are involved in the production of components designed for weapons platforms in the Israeli military arsenal. These include production agreements for the:

- AH64 Apache prime Contractors: Boeing McDonnell Douglas Helicopter Systems (USA), General Electric (USA) and Martin Marietta (USA). Canadian-based firms involved in manufacturing or developing related components are: ATI Technologies; BAE Systems Canada Inc; Bristol Aerospace; CAE Electronics; Canadian Commercial Corp; Cercast; CMC Electronics; Derlan Aerospace Canada; Litton Canada; Magellan Aerospace; Northrop Gruman; Northstar Aerospace; Virtual Prototypes Inc: 43
- AV8B Harrier II prime Contractors: McDonnell Douglas (USA) under an agreement with the British Aerospace Corporation (UK). Canadian-based firms involved in manufacturing or developing related components are: CAE; Canadian Marconi Co; Dowty Canada Ltd; DY 4; Hypernetics Limited; Northrop Grumman, Canadian Operations; Lucas Industries Canada; Rolls Royce (Canada); West Heights Manufacturing; 44
- F15 Eagle prime Contractor: McDonnell Douglas (now Boeing) (USA). Canadian-based firms involved in manufacturing or developing related components are: Allied Signal Aerospace Canada; Atlantis Systems International; AWSM Enterprises (Division of Avcorp Industries); Bomem Inc; Canadair; Canadian Commercial Corp; CMC Electronics Inc (formerly Canadian Marconi Company); Devtek Corp; Durmitor Inc; DY 4; ELCAN Optical Technologies; Fleet Industries; Garrett Manufacturing; Haley Industries; Honeywell ASCA Inc; Hypernetics Ltd; Magellan Aerospace; Northrop Gruman, Canadian Operations; Rockwell International of Canada; Virtual Prototypes Inc; West Heights Manufacturing. 45

Among other Canada-Israel defense industrial contracts is an agreement between the Israeli based Elisra Group and the Canadian Army to continue supplying electronic combat systems for helicopter defense. The scope of the contract is 25 million shekels.⁴⁶

Bombardier and Nortel: Forging Ties to Israel's Military-Industrial Complex

It is also worth noting that there exist strong partnerships between some of Canada's most recognized firms and key players in the Israeli defense sector. In particular, Bombardier Inc. and Nortel Networks have fostered relationships with important components of the Israeli military-industrial complex. Bombardier has thus secured an important civilian coproduction agreement to produce up to 147 rail cars for Israel Railways in a joint venture with Israel Aerospace Industries' through its Ramta plant. The agreement, initialed in 1999, was initially meant for 23 cars. However, it has since been expanded several times, with an estimated value of some US\$ 94-million. Bombardier has also worked with the Israeli Authority for Industrial Cooperation to purchase Israeli products valued at tens of millions of US dollars as part of an offset agreement. In March 2006, Bombardier Aerospace hosted a number of Israeli aerospace and defense-industrial firms,

^{‡‡‡} According to DFAIT figures, this item accounts for \$3,743,839 of the total in exports for 2005.





including Aero-Maoz, Elbit Systems, Iscar Tools, Cabiran, Cyclon Aviation, Ashot Ashkelon, Shafir Production Systems, and Israeli Aerospace Industries (IAI) to explore potential synergies and procurement opportunities.⁴⁸

Nortel Networks, for its part, boasts a 26-year history of active involvement in the Israeli telecommunications sector, dating back to a partnership forged in the early 1980s with Telrad Systems (the telecom subsidiary of Koor Industries Ltd). Nortel's partnership with Israeli firms really began to expand in the mid-1990s, during the accelerated liberalization of the Israeli economy. In 1996, Nortel signed an agreement with Israeli voice recording, retrieval and logging giant NICE Systems to install digital voice logging systems in all Nortel call-centers. A year later, Nortel purchased a 20% direct stake in Telrad with the agreement of Koor. In February 1998, Nortel's subsidiary Entrust Technologies signed a cross-licensing and distribution agreement with Israel's Check Point Software in the realm of virtual private networking (VPN) solutions.

Finally, in 2000, Nortel established an Israeli subsidiary Nortel Networks Israel (NNI) in partnership with Koor. Nortel assumed full ownership in 2003 when Koor sold its 28% share in NNI. NNI currently boasts contracts with most of Israel's major telecom companies (including Pelephone, Bezeq, Partner, Alvarion and Cellcom) and prides itself on being "a significant vendor in the Israeli Ministry of Defence telecom infrastructure." While the extent of Nortel's relationship with the Israeli Ministry of Defense remains unclear, its work with the Israeli Air Force (IAF) is public. In the late 1990s, Nortel won a \$70 million (Canadian) contract to replace the IAF's aging communications infrastructure. In March 2007, Israeli sources reported that Nortel had completed the first stage of a new optical communications network for the IAF based on 'dense wavelength division multiplexing' (DWDM) at the cost of \$2-4 million. The full project is due to be completed in 2009, enabling advanced broadband services for faster and more secure voice and data communications during IAF operations.

In 2003, Nortel was also tasked with supplying Ben Gurion International Airport's newly built Terminal 3 with its Meridian 1 PBX-enabled network (ensuring secure and centrally

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KOOR INDUSTRIES LTD. is described as "a leading Israeli holding company, focusing on high growth, internationally-oriented, Israeli companies. KOOR actively invests in telecommunications and technology through its holdings in ECI Telecom, Telrad Networks and ECtel; in agrochemicals through Makhteshim Agan Industries; and in defense electronics through Elbit Systems and in tourism and aviation through its holdings in Knafaim Arkia Holdings and the Sheraton-Moriah hotel chain...KOOR's primary shareholder is the IDB Group which holds 41%" ("Koor Industries Ltd." MATIMOP, The Israeli Industry Center for R&D, November 2008). Canadian-based Claridge Inc., belonging to the Bronfman and Kolber family trusts holds another 35% (Bichler, Shimshon and Jonathan Nitzan. *The Global Political Economy of Israel*. Pluto Press: London, 2002).

[&]quot;In fiber-optic communications, wavelength-division multiplexing (WDM) is a technology which multiplexes multiple optical carrier signals on a single optical fiber by using different wavelengths (colours) of laser light to carry different signals. This allows for a multiplication in capacity, in addition to enabling bidirectional communications over one strand of fiber. This is a form of frequency division multiplexing (FDM) but is commonly called wavelength division multiplexing." (Stallings, W. "Data and Computer Communications", Pearson Education, Inc., 2007. p.247-248).



managed communications) as well as its Passport 7400 platform (providing integrated air-traffic control).⁵⁷ Nortel also ran a 'Smart City' pilot project in Israel's illegal Ariel settlement in the occupied West Bank during 2006-2007. For the project, Nortel set-up a WLAN 'mesh network' allowing the settlement to control wireless surveillance cameras, remotely monitor water meters, and to carryout 'wireless municipal law enforcement functions.' Nortel considered the Ariel contract 'a showpiece project' that helped the company emphasize the relevance and reliability of its WLAN 'mesh-networks' for both civilian and military applications.⁵⁸

In the Air: Canadian and Israeli aerospace projects

Besides the already discussed relationship between the Canadian Space Agency (CSA) and the Israel Space Agency (ISA), there also exist a number of private sector aerospace projects linking Canadian and Israeli firms. Of particular note are a number of joint projects in the development of unmanned aerial vehicle (UAV) technologies, as well as satellite and aviation security partnerships.

Joint Canadian-Israeli UAV Development – The NOCTUA Project

The Canadian Forces 'NOCTUA Project' is a multi-million dollar attempt to push forward a comprehensive upgrade of Canada's aging and inadequate unmanned aerial surveillance (UAS) fleet. The goal is to bring existing aerial surveillance platforms used by the Canadian Forces in line with the new types of aggressive counter-insurgency missions that they are undertaking in places like Afghanistan. Bidding for an approximately \$100-million contract to update the Canadian fleet in Afghanistan were Israeli defense-industrial giants Israel Aerospace Industries (IAI) and Elbit Systems, along with their respective Canadian partners: British Columbia-based MacDonald Dettwiler and Associates (MDA) and L-3 Communications of Canada. In the end the MDA/IAI bid was successful.⁵⁹

While there is no conclusive proof that lobbying necessarily influenced the Department of National Defense's eventual decision to select IAI's Heron over Elbit's Hermes 450, it is worth noting that documents obtained from the Office of the Commissioner of Lobbying of Canada indicate that in the period 2003-2008, IAI had registered 22 individual consultants working for it on Parliament Hill (mainly with CFN Consultants, whose client base includes IAI-partner MDA) while Elbit retained only eight registered consultants pushing for contracts during this period (it was represented by the following three registered lobbyists: Policy Insights Inc, PwM Consulting, and Western Frontier International Group Inc.). Elbit was also hampered in its bid when Thales (UK) pulled out of the consortium in March 2008. ⁶⁰ The DND's selection of IAI/MDA for the contract was announced in early August 2008. A *Globe and Mail* report described the nature of the agreement:

"Early next year, 10,000 metres above Afghanistan, unmanned aerial vehicles carrying surveillance equipment designed by MacDonald Dettwiler and Associates Ltd. will become part of Canada's effort to defeat the Taliban in one of its strongholds, Kandahar province. The flights are part of a two-year \$95-million Department of National Defence contract won last month by MacDonald Dettwiler (MDA) and partner Israel Aerospace Industries Ltd. The deal will also see about 20 MDA employees stationed



at Kandahar airfield, with duties including overseeing takeoff and landing of the aircraft. For MDA, it is the first big breakthrough after five years of work in the burgeoning realm of unmanned aerial vehicles (UAVs)."

According to other reports, the division of responsibilities in the partnership is as follows: "The Heron UAVs and their payloads were built at IAI's facilities in Israel, while management, training and in-theatre maintenance services are the responsibility of Canadian prime contractor MDA." The IAI/MDA partnership actually dates back to 2006 when the two partnered for the development of 'joint commander centers for tracking shipments." The most recent contract was won after a successful March 2008 test of IAI's Heron at MDA's Ardea UAV Service located in Suffield (Alberta), described as "a state-of-the-art R&D and training facility for the application and advancement of UAVs."

Elbit Systems and Canadian Partnerships

Despite losing the NOCTUA project to IAI, Elbit Sytems has pursued other contracts with the Canadian Forces. In March 2006, it won a contract to provide the CF with five of its Skylark hand-launched and laptop operated mini-UAVs. The Skylarks were incorporated into the CF's rotation in Kandahar by August 2006 in order to assist in carrying out "tactical close-range surveillance and reconnaissance missions." Elbit Systems, has also pursued contracts in the marine-technology sector (see below) and a CIIRDF funded partnership with MDA for the development of 'satellites' (though no further details on the joint venture are publicly available).

Additionally, Air Canada was one of six airliners to participate in the development of a 'Code Positive' pilot identification system pioneered by Elbit Systems. According to reports: "The \$25-million system allows ground systems to identify aircraft that have requested entry to Israeli airspace by means of a secret code issued to pilots." The technology will eventually be required for installation by Israeli air-traffic controllers for all civil-aviation craft wishing to transit Israeli airspace. 68

Other Canada-Israeli aerospace partnerships

Two additional joint Canadian-Israeli aerospace projects are also worth mentioning. London (Ontario) based Diamond Aircraft Industries, a manufacturer of small civilian and military jets, has partnered with Israel's Aeronautics Defense Systems to deploy Diamond Aircraft's "DA42-derived Dominator 2 strategic unmanned air vehicle in May, while first details have [also] emerged of [ADS's] work to also adapt the Canadian company's D-Jet very light jet for unmanned applications." Diamond Aircraft has received \$19.6-million in funding from the Canadian government's Strategic Aerospace Defence Initiative (SADI) to develop its D-Jet all-composite, five seat aircraft. Aeronautics president, Avi Leumi, revealed that Elbit Systems and IAI had also sought out partnerships with Diamond, stating that despite the interest from other Israeli



aerospace players: "We managed to sign the contract and we believe in the potential of this special UAV." ††††

Furthermore, Rotary Airforce Marketing (Saskatchewan) and Vertical UAV Ltd. (Israel) have partnered to "build and test a first prototype of the RAF 2020 compound aircraft. This gyroplane with vertical takeoff and landing capabilities will include tip-jets, compressed air generator, new rotor, wing, tail and the modular approach enabling the designers to use the building blocks in the three configurations." Finally, it should be noted that Canada's Telespace Ltd. played "a significant role in the development of Israel's space program," including assistance in the launch of AMOS, Israel's first communications satellite during the mid- 1990s. 73

At Sea: Marine Technology Development

In July 2006 Major Andy Wells of St. John NF joined Henri Rothschild director of CIIRDF, officials from NRC-IRAP (Canada), and a group of 15 Newfoundlanders (including representatives from Blue Oceans Satellite, Oceans Advance, and a researcher from Memorial University) for a trip to Israel to partner with Israeli marine technology companies. While in Israel they met with a number of Israeli maritime technology and security firms, including ODF Optronics, Elbit Naval, Israel Aerospace Industries and Rafael Development. Since then a number of partnerships have developed.⁷⁴

In 2007, Israeli public company MTI announced a partnership with Blue Oceans of St. John's Newfoundland. Menashe Mani, general manager of MTI, explained the partnership in the following terms: "We have a certain technology and Blue Oceans offers another expertise in the area of satellites. Plus Canada is closer to our market than Israel." According to reports the end-product will be "a remote monitoring and sensing system, used for security purposes or - as Mani prefers to put it - 'for monitoring assets.' It will comprise a physical station at a port or on a ship that will communicate and transmit, via a satellite modem, high-quality images." Similarly, Atlantic Nuclear Services Ltd. of Fredericton and Israeli Aircraft Industries of Israel teamed up to look at: "the feasibility of adapting unmanned airborne vehicles now used for military purposes for civilian applications such as ocean surveillance, ice monitoring and forest protection."

The maritime-technology relationship is not limited to the Atlantic provinces. In early 2007, the CIIRDF announced that Israeli security and aerospace giant Elbit Systems had partnered with marine night-vision company Current Sales Corporation of Port Moody, B.C. The companies stated that they will "collaborate on technology to detect obstacles and foreign objects at sea. The system, called the 'Sea-View Project' will be a relatively small and light device that can 'see' at night through rain and snow – perfect for sailors out in the stormy seas or explorers in the north navigating around glaciers." ⁷⁷⁷

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^{††††} It should be noted that Diamond also disposes of a 500,000 sq ft production facility in China, while Aeronautics UAVs are actively engaged in operations in Gaza as well as contracts for 'perimeter control' systems in the West Bank with Motorola.



Section IV: Cooperation on the Ground: HLS firms specializing in surveillance, 'perimeter security,' emergency preparedness and riot control

This section examines important Canadian and Israeli partnerships covering the fields of perimeter security, surveillance technology, cyberspace and communications, as well as emergency-preparedness and riot-control. It is important to note the diversity and range of products involved.

Securing the Perimeter: Senstar and Magal Industries

Senstar is a Canadian firm with support offices in China, Germany, Mexico, the United States and the United Kingdom in addition to a network of dealers and installers worldwide. Senstar became a fully owned subsidiary of Israel's Magal Security Systems Ltd. in 1997. Magal claims to hold 40% of the global perimeter security market with contracts totaling some US\$ 67-million. Magal, along with Elbit Systems (a Koor subsidiary), is a major contractor for the Israeli Ministry of Defense in the installation of security and surveillance equipment along Israel's separation barrier. Magal has completed some 125 km of security refurbishments along its path. Brian Rich, Senstar's president, considers the separation barrier the firm's 'largest installation.' Senstar's 33,000 sq. ft. office and manufacturing facility in Carp (Ontario) and its nearby 4.0 ha (10-acre) outdoor sensor test site are important assets for the testing and development of Magal's broad range of surveillance and intrusion detection related security products. Similarly, the experience Magal has gained in erecting the Israeli separation barrier has bolstered Senstar's industry recognition. The survey of the sensor of the sensor of the security products.

Since its inception early 1980s, Senstar has been an important supplier of video surveillance and perimeter security equipment for Correctional Service Canada (CSC). This is a relationship that has continued since Magal assumed full ownership over the firm. Since 2001, Senstar has scored a number of important contracts for the refurbishment of CSC installations. As Jacob Even-Ezra, Magal' Chairman, explained in a December 2002 interview: "The contract for protecting the Canadian correctional facilities follows previous orders...We are very pleased that Magal's products continue to be chosen for the critical mission of preventing escape of inmates from correctional facilities."

Examples of recent Senstar-CSC contracts include: a \$500,000 contract to install Senstar's Intelli-FLEX sensor at 6 CSC institutions (March 2001);⁸⁰ a \$1.6-million contract to install over 700 video-surveillance cameras at 27 CSC correctional facilities (January 2002);⁸¹ a \$2.2-million contract to install Senstar's Perimitrax system at 9 CSC institutions and provide operational and maintenance training (April 2002);⁸² a \$2.75-million contract to install Senstar's Intelli-FLEX fence sensor at another 12 CSC

^{†††‡} A full listing of products can be found in Senstar's latest corporate brochure: http://senstarstellar.com/ENG/Home/SenstarCorporateBrochure.pdf.





institutions and to integrate this system within the existing Perimeter Intrusion Detection System (PIDS) Integration Unit (PIU) (December 2002);⁸³ and a \$3.4-million contract to install Senstar's Perimitrax system at another 8 CSC sites in Canada (November 2004).⁸⁴ In total, CSC concluded at least \$10.45-million worth of contracts with Senstar for the installation of prison security systems by 2006. In December 2005, Senstar was also selected for similar contracts valued at \$2-million by Canadian government agencies to provide "security solutions and security system infrastructure for power generation and other sensitive sites located across Canada."⁸⁵

CIIRDF funding for HLS surveillance and robotics technologies

A number of CIIRDF projects in recent years have focused on the development of technologies relevant to the HLS sector, including those in the fields of surveillance and cutting-edge robotics. Two noteworthy Canadian firms in these fields are involved in the development of joint partnerships with Israeli firms through the CIIRDF framework. The first is AUG Signals Ltd. of Toronto which has partnered with InfoWrap Systems Ltd. of Jaffa: "to develop intelligent video software for an integrated surveillance system, called the Detection and Identification for Video Surveillance Systems. The proposed system will be the first to enable reliable, automatic outdoor moving object identification, even during the night."

The second firm is Frontline Robotics of Ottawa, which has partnered with the IAI's LAHAV division and ODF Optronics of Tel Aviv on two separate CIIRDF-funded projects. The LAHAV venture, seeks to integrate Frontline's 'Robot Open Control' (ROC) system into LAHAV's 'Guardium perimeter control' unmanned ground vehicles (UGVs). The UGVs, are thus meant to "gain autonomous team control, 3D object recognition and classification, dynamic change perception and positioning capabilities." G-Nius's Guardium UGV, a joint venture between IAI and Elbit, is the successor of this project and uses such technologies for perimeter control applications. Another Frontline Robotics joint-venture, in this case with ODF Optronics of Tel Aviv, announced by the CIIRDF in July 2008, is described in the following terms: "MAST - Mini Autonomous Search Team - The product to be developed will consist of a pack of smart miniature sensing robots designed to perform a variety of mutual tasks with minimum human intervention by combining high sensing capabilities with software framework for the control of Packs of autonomous, collaborative robots."

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In July 2007, Frontline Robotics also formed a strategic alliance with Israel's InRob Tech Ltd. in order to jointly bid on Israeli defense ministry contracts through a new office in Tel Aviv (note: this partnership has taken hold outside the CIIRDF framework). Jeremy James, President and CEO of Frontline Robotics stated that: "The fact that Frontline Robotics has a permanent office in Israel facilitates our plans to bid together on local defense contracts." According to James, the complimentary "will allow us to greatly improve our MIL-STD remote controlled UGVs by allowing them to patrol autonomously, avoid obstacles and to communicate bi-directionally in real time amongst robot team members and with the base station." InRob Tech President, Ben Tsur Joseph, offers the business side of the rationale behind the partnership: "InRob Tech offers its military standard technologies and stellar reputation, while Frontline Robotics contributes its team



Other Canada-Israel partnerships in surveillance

The CIIRDF-backed projects are only part of a much broader field of HLS-related collaboration between Canadian and Israeli firms in developing new surveillance technologies. For instance, Visual Defence, which boasts both Canadian and Israeli offices, was founded in January 2005 by Bary (Tal) Oved – an Israeli dotcom turned HLS entrepreneur - through the merger of his "defense wireless video division, Emblaze Defense, with Girit Projects and AVLogics, the security and surveillance divisions of Canadian based GiritHoldCo." Visual Defense's counts retired Israeli Lt. General Amnon Lipkin-Shahak ******, who joined its Board in April 2005, among its non-executive directors. Visual Defense - which was named by PROFIT Magazine as one of Canada's 100 fastest growing companies in 2008 - describes itself as providing 'public safety and security solutions' that 'manage mission critical systems for leading organizations around the world.' Shahak 'manage mission critical systems for leading organizations around the world.' Shahak 'manage mission critical systems for leading organizations around the world.' Shahak 'manage mission critical systems for leading organizations around the world.' Shahak 'manage mission critical systems for leading organizations around the world.' Shahak 'manage mission critical systems for leading organizations around the world.' Shahak 'manage mission critical systems for leading organizations around the world.' Shahak 'manage mission critical systems for leading organizations around the world.' Shahak 'manage mission critical systems for leading organizations around the world.' Shahak 'manage mission critical systems for leading organizations around the world.' Shahak 'manage mission critical systems for leading organizations around the world.' Shahak 'manage mission critical systems for leading organizations around the world.' Shahak 'manage mission critical systems for leading organizations around the world.' Shahak 'manage mission critical systems for leading organizations around the world.'

In essence this translates to a range of Visual Defense products that facilitate the efficient management of complex security and surveillance systems for a range of organizations and facilities, including: Toronto's Pearson International Airport, Ottawa's MacDonald-Cartier Airport, the Calgary Airport Authority, VIA Rail Canada, CN Rail, Toronto Community Housing Corp, the City of Mississauga, Air Canada, the University of Toronto and the University of British Columbia. Visual Defense also has contracts in Israel with the IDF and Tadiran Communications as well as a number of other international contracts with clients as diverse as the British Airport Authority (BAA), Saudi ARAMCO and the US Department of Homeland Security. 92

intelligence software, to create a genuine win/win technological and business solution for defense and security-related robotics applications." ("InRob Tech and Frontline Robotics Discuss Collaboration on Robotics Defense Projects" in InRob Tech News and Events, 25 July 2007 - http://www.inrobtech.com/news_details.asp?id=38; "InRob Tech News and Events, 27 August 2007 - http://www.inrobtech.com/news_details.asp?id=44).

Lipkin-Shahak served as the Chief of Staff of the Israeli Defense Forces (IDF) from 1995-1998. The Products include the: Command and Control Center (3C), a common management platform that provides a complete customized solution allowing a single point of management for video, audio and alarms generated from numerous subsystems; Virtual Matrix System (VMS), which integrates analog systems with IP technology and uses open platforms to connect with cameras, video recorders, encoders, etc from multiple manufacturers to offer full flexibility in system design; Digital Video Storage System (DVSS), a comprehensive digital and audio storage system that provides a single system to store, query, review and manage large amounts of recorded and live video and audio content from various sources; Mobile Digital Video Storage System (DVSSm), a full featured Digital Video Recorder designed for mobile architecture; Intercom Management System (IMS), a standards-based VoIP Intercom solution that integrates voice, image and data into one cohesive solution and integrates seamlessly with both 3C and VMS; and VDEye, the Visual Defence Eye is a designed for streaming video over low bandwidths to allow the ability to access video data on a wide variety of devices including laptops, tablet PCs, rugged PDAs, stationary PCs as well as a range of cellular phones.



Other Canadian-Israeli linkages in the surveillance and digital imaging field include partnerships between:

Prosilica (Canada) and OpteamX (Israel) to develop 'digital cameras for machine vision and industrial use:' 93

Canmont Investment (Canada) and Hi-G-Tek (Israel) working on "cost-effective, tamper proof Electronic Seals and RF Identification Electronic Tags...for both civil and military applications;" ⁹⁴

Advanced Monitoring Technologies Inc. (Canada) and A.G.M. Communications and Control Ltd. (Israel) marketing "innovative data acquisition and control systems...used in such applications as the remote monitoring of machine vibration and energy consumption."

A number of additional Israeli firms have found Canada an important market for surveillance related products, including:

Green Vision Systems Ltd., which provides 'advanced hyper-spectral imaging equipment and software for life science, pharmaceutical, industrial, homeland security and environmental monitoring of purity, contaminations and pollutants', and;

OzVision, which develops 'a new level of security by pioneering a wide range of video security services' including 'video verification, guard tours, inventory management,' and software that enables the sending of 'compressed video files of alarm events directly to an end user's e-mail program on their PC or even PDA'. 97

Finally, Verint and Nuance, two Israeli speech recognition firms have scored a number of contracts and partnerships with Canadian firms.

In Cyberspace: Privacy and Communications Solutions

There also exist a number of Canadian and Israeli partnerships in the general realms of privacy and communications. This section explores a number of these firms. NICE Systems of Israel has set up Canadian operations, describing itself as:

"the market leader in providing fast and efficient solutions for the capture, storage, retrieval and analysis of customer interactions for the enterprise sector, including contact centers, financial trading floors and facilities organizations. NICE's next generation security solutions empower security personnel to detect, prevent and respond to threats in real-time, and to investigate and reconstruct criminal and security cases. NICE provides advanced video surveillance and control services that ensure the security of facilities and allow for the remote evaluation of objects, vehicles and individuals."

In Canada NICE Systems has been involved in a number of contracts, including:

A 1996 agreement to cooperate with Nortel on telebanking and teleinsurance, with the installation of Nice's digital voice logging system in all of the call centers using Nortel systems (at the time representing one-third of all US call centers). ⁹⁹

The provision of air-traffic control systems (ATC) for over 70 NAV Canada sites –i.e. Canada's provider of civil air navigation services that owns and operates Canada's civil air navigation service (ANS). NAV CANADA co-ordinates the safe and efficient movement of aircraft in Canadian domestic airspace and international airspace assigned to Canadian control. The contract was valued at \$2.8-million. 100

Finally a number of other firms are worth mentioning in this context. Israeli softwarebilling company Amdocs provides a range of billing services for key Canadian



telecommunications companies including Bell Canada, Telus, and Rogers Communications. ¹⁰¹ Unity Wireless Corp, with operations in both Canada and Israel is described as a: "developer and manufacturer of coverage enhancement products for wireless carriers including tower mounted amplifiers, tower mounted boosters, In-door & Out-door Repeaters, and Microwave links, as well as HPAs and integrated RF front ends for large base station OEMs." ¹⁰² Watchfire, which also boasts Canadian and Israeli offices, provides: "Network security products for e-business companies." The firm is described as a developer of "defense and attack applications for the protection of Internet sites." ¹⁰³

Emergency Response and Riot Control

Investigations into the emerging Canada-Israel relationship have also uncovered important partnerships in the fields of emergency response and riot control. Such partnerships include both public-sector exchanges between various Canadian fire and police departments and their Israeli counterparts (see previous section) as well as Canadian firms exporting emergency preparedness and riot control solutions and products to Israeli end-users.

Two such Canadian firms are worth highlighting in particular. The first is Stony Creek (Ontario)-based Allen-Vanguard which boasts the Israeli Police Service as one of its clients. In its corporate brochures, the firm describes itself as developing and marketing: "solutions for the containment and mitigation of Chemical-Biological-Radiological-Nuclear-Explosive (CBRNE) devices and materials [...] [including] containment systems, decontamination systems, personal protective equipment and training." ¹⁰⁴ A 2003 Vanguard annual report describes the relationship with the Israeli police in the following terms: "In the Middle East, the Israeli Police, a customer with serious and demanding requirements, adopted Vanguard's UCS equipment for dealing with the daily occurrence of terrorist bombs and threats." ¹⁰⁵ Previously, as NBC, the firm provided training for Israeli first response teams under the auspices of a WMD-CBRN Program sanctioned by US Homeland Defense and supported by Defence Research Development Canada (DRDC). ¹⁰⁶

The second firm is Quebec-based Mawashi Corp. Protective Clothing, a Canadian provider of riot equipment that works closely with the Israeli distributor MyForm Personal Security. According to this Israeli distributor's website: "MyForm is an authorized supplier of the Israeli Department of Defense and distributes Mawashi body armor, carrying vests, Krav-Maga training suits, riot shields, full body protection suits (for riots), riot helmets, etc. Clients of MyForm include the Israeli DoD; Israeli PMO; Israel Prison Authorities; IDF Special Forces; Police Special Forces and private security firms." ¹⁰⁷

^{******} Previously known as NBC Team Ltd. and then Vanguard Response Systems Inc.



Athlone Global Security and the Israeli HLS Venture Capital Market

While not as significant as some of the major US investment groups specializing in Israeli venture capital opportunities – including Elliott Broidy's Markstone Capital Group, an \$800 million private equity fund, Haim Saban's Saban Capital Group, Beny Alagem's Alagem Capital Group, or David Nazarian's Smart Technology Ventures ¹⁰⁸ – Canadian-owned Athlone Global Security (AGS) has become an important venture capital player specializing in bringing promising firms in the Israeli HLS sector to the North American market. The network of military-industrial relationships within AGS's governing bodies highlights the increasingly frequent overlap between Canadian, American and Israeli security interests.

AGS is a fully owned subsidiary of Toronto-based Athlone Bancorp Inc., which was founded in 2004 by Stan Bharti (who is also President and CEO of mining and resource extraction firm Forbes & Manhattan Inc.). AGS has offices in Toronto, Washington and Tel Aviv and has partnered with the Chesapeake Innovation Center, a leading 'homeland security technology accelerator' located in Annapolis, Maryland. According to its website: "AGS Group capitalizes on Israel's robust HLS sector by systematically analyzing the most promising new technologies and selecting potential investments based on strict criteria of technological soundness, market potential, and management quality." AGS is particularly focused on 'the four core pillars of homeland security': (1) protection of critical infrastructure; (2) access management; (3) threat detection, and (4) information security.

AGS' governance is padded with a number of former high-ranking officials in the Canadian, Israeli and US military and security establishments. Its board of directors therefore includes:

Maj. Gen. (retired) Doron Almog, the former chief of the IDF's Southern Command, currently serving as the Chairman of Tel Aviv based AGS-Israel Ltd;

Lt. Gen. Jay Garner, who served in the U.S. military for 35 years, including a stint as commander of Air Missile Defense Units in the Gulf War and as the head of the post-war reconstruction effort in Iraq in 2003;

Lt. Gen. (retired) Ronald V. Hite, who served 33 years in the U.S. military, including as Senior Military Advisor to the Army Chief of Staff on all research, development and acquisition programs. Since retirement in 1997 he has served as CEO of Cypress International Inc.;

Major General (Retired) Jerry Harrison, Vice-Chairman of the AGS Board and Chairman of the Investment Committee. His last assignment was as Commander of Laboratory Command and then as Chief of Legislative Liaison for the U.S. Army until 1995. Since retiring he was Vice President, Business Development and Sales for General Dynamics C4 System.

Moshe Horev, current Vice Chairman of Athlone Global Security (Israel) Ltd. in Tel Aviv and CEO of Oracle Systems Israel Ltd. Formerly CEO of Hewlett-Packard in Israel. Horev headed the Israeli

^{§§§§§§} Another important Canadian venture capital firm that specializes in Israeli companies is Skypoint Capital of Kanata, Ontario which is focused on the semi-conductor industry. It's portfolio includes a number of Israeli semiconductor firms.



Ministry of Defense's R&D Division, leading the Avionics and Armaments Division and the Guided Weapon System Program Office of the Israeli Air Force;

Maj. Gen Lewis W. MacKenzie, with 36 years service in the Canadian Forces, worked with NATO forces in Europe and international peacekeeping forces in Gaza, Cairo, Cyprus, Vietnam, Central America and most notably as commander of the UN Protection Force (UNPROFOR) in Bosnia in 1992-1993;

Oliver 'Buck' Revell, former Deputy Director of the FBI responsible for all investigative, intelligence and liaison programs. As founder and president of the Revell Group International, he now consults widely on business and national security issues. 114

And an *international advisory board* that in addition to some of the names mentioned above, includes:

Ephraim Halevy, former Director of Mossad, Chairman of the National Security Council of Israel, and Special Advisor to the Prime Minister on national security, and;

Sir Michael Rose, who commanded the U.K.'s Special Air Service ("SAS") from 1979-82, including during the Falklands War. He also commanded the UNPROFOR in Bosnia from 1994-95. 115

Some of the key companies in the AGS portfolio include:

BlueBird Aero Systems: tactical UAV technology, for urban, tactical, HLS, and civil applications;

Defensoft Planning Systems: automated security planning systems for perimeter defense and physical security systems;

Emza: Visual Sense: autonomous visual sensors;

ICAROS: geospatial data and aerial mapping;

 $\label{lambda} Larotec: technologies implementing secure M2M-machine-to-machine or machine-to-mobile-communications via wireless technologies and networks;$

PerSay: advanced voice biometrics, high-quality authentication solutions that are language and accent independent that reveal the unique shape of the vocal track of each person;

Secure Vision: IT vulnerability assessment platforms, security applications, IT vulnerability assessments, consulting;

Sensics: panoramic, HD personal displays. 116

In January 2007, AGS announced it was "planning to compile a \$200 million private equity fund for investing in anti-terror technology companies in Israel or those with a presence there." According to Gordon Hawke, AGS chief executive, the fund is seeking to identify 25 potential HLS specialized firms to invest in: "In Israel, there are a lot of these interesting, technology-based products... They are well ahead of the rest of the countries. We literally have hundreds to choose from for those 25 investments." 118

Conclusions – Canada-Israel Security Ties, Further Areas for Research

As this report has endeavored to show, Canada-Israel security links have expanded significantly in the past five years. While much can be gained from a detailed study of public sources, a lot more remains unclear. It would seem important to undertake further



research that can build on the initial findings of this report. In particular some areas of further research include:

- (1) The specific content of negotiations between Canada and Israel in devising the 'Declaration of Intent' on Public Safety cooperation. Here it would be worth obtaining: (a) detailed minutes of the in camera session held in February 2007 of the Public Safety and National Security Committee at which Avi Dichter spoke; (b) any documents pertaining to the three preparatory groups that were tasked by both governments to begin strategizing on the scope of the agreement, beginning in November 2007; (c) any information on meetings of the 'Management Committee' established under the auspices of this agreement.
- (2) A more detailed overview of the exact amount of total bilateral Canada-Israel homeland security and defense industrial partnerships, not limited to conventional, controlled military exports, but also including two-way investments in such sectors, as well as the activity of related subsidiaries, venture capital firms etc.
- (3) A more systematic analysis of individual membership within various corporate governance structures of firms involved in Canada-Israel HLS and DI partnerships and their relationship to major lobby organization pushing Canadian and Israeli rapprochement.
- (4) Further research into the exact nature and content of all CIIRDF agreements and the main beneficiaries of such contracts. Along these lines it is also worth pursuing more information on the exact nature of the assistance provided by the Israeli biotechnology and photonics industries to the development of Canadian technology clusters in these fields.
- (5) A more systematic analysis of the sub-national agreements that exist between Canadian provinces and Israel as well as between individual industry associations (such as the agreement between the NRC's Canadian Construction Materials Center and Israel's National Building Research Institute).

For a number of these points serious consideration must be given to the filing of Access to Information (ATIP) requests under the *Canadian Access to Information Act* and *Privacy Act* in order to deepen public accountability.

Such investigations will only help to increase the important public scrutiny that needs to be brought to bear on the burgeoning Canada-Israel security relationship in both countries. Such research is particularly important in that it can help us better understand the ways in which this relationship conditions the Canadian state's attitudes towards Arab and Muslim communities in North America and its relationship with other racialized and criminalized groups in Canadian society - most notably its indigenous peoples. Furthermore, such research is important in that it can also help us elucidate the degree of Canadian complicity in the continued denial of fundamental human rights for the Palestinian people and its role in sustaining Israeli militarism and apartheid policies.

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