

*2010: Canadian Defence  
Industry at a Crossroads?*

# APPENDIX A

## *Canadian Association of Defence and Security Industries (CADSI) Military Procurement Report*

### **Executive Summary**

The primary responsibility of every national government is the safety of its people and the protection of its country. Governments, therefore, use all assets at their disposal to tackle this challenge.

Canada's own success in defending its sovereign, economic and national security interests depends largely on how two important stakeholders—Canada's military, and its defence and security industries—operate independently and together. Individually, each must be strong; jointly, their efforts must be coordinated. This makes the issues affecting defence procurement efficiency and effectiveness an important public policy issue and a matter of national security interest.

Procurement decisions made by the Government of Canada in the coming years will define our military capability and the capacity and international competitiveness of Canada's defence and security industries for the next 20 years.

Urgent attention and immediate action is required to create a public policy environment and procurement practices and processes that will deliver

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programs more efficiently and with vastly improved outcomes for the Canadian economy and Canadian workers. Without these changes, Canada's defence industrial base will decline, relegating Canada to that of a buyer of foreign capabilities for future major procurements. This will adversely affect Canada's ability to protect its sovereignty and to promote jobs in a knowledge-based economy.

In response to the Government's request for advice from Canada's defence industry, the Canadian Association of Defence and Security Industries (CADSI) undertook a 13 week consultation with Canada's defence industrial base to determine how the Government could obtain the equipment needed by the Canadian Forces and achieve an optimal economic return on investment. Within industry, the consultations generated great interest and anticipation of change. There was no shortage of input, no reluctance to share experiences and contribute ideas, and no ambiguity about the overall direction recommended. There was also a sense of urgency about the need to act so as not to lose momentum on the Canada First Defence Strategy (CFDS) or on procurements in the pipeline. This sense of urgency was coupled with a conviction that change could begin immediately.

Three over-riding and inter-related principal recommendations emerged from the consultations:

- First, the consultation process called on the Government to create a defence industrial policy supported by implementation strategies aligned with CFDS procurement priorities and sovereignty and key national economic objectives. This was described as fundamental to leverage optimal economic returns from the \$240B commitment to rebuild the equipment needs of the Canadian Forces. A defence industrial policy would define the industrial capabilities Canada holds to be essential to its strategic defence and economic interests and which must to be nurtured and developed in Canada. It would provide a roadmap for industry to make R&D investments, build new capabilities, establish human resource strategies, establish partnering relationships and plan strategies to win business internationally. And it would provide a framework for Government/industry interactions and metrics for measuring progress and success in policy implementation.
- Second, enabling an environment where the procurement process and its operating culture result in effective program delivery and an optimal economic return to the taxpayer was a dominant consultation theme. Urgent attention was deemed necessary to remedy a procurement

process defined by frustration, confusion, inconsistency, layers of built-in redundancy, systemic risk avoidance and a perceived lack of transparency.

- Third, overall accountability for the combined responsibilities of defence equipment and the defence industrial base should reside at the Cabinet level in one Minister. Unlike virtually every other industrialized country, Canada divides Ministerial accountability for defence equipment and its defence industrial base. Other countries with similarly modest domestic defence markets have made the connection between national interests and indigenous capability. The absence of a single Ministerial point of accountability within Government slows and adds costs to the procurement process and weakens the Government's ability to defend Canada's national interest and achieve a strong economic return on investment. While beyond this study's scope, there are at least three options available to implement this recommendation: a separate defence procurement agency; a new defence production department; or, assigning the joint responsibility with a Minister within the Government's existing departmental structure.

Canada penalizes itself as few other nations do, delaying essential military materials, adding non-value-added costs to itself and to industry, and inhibiting its industrial champions from winning business at home and abroad. The time has come to break down the barriers impeding efficient execution of defence procurements: the status quo is no longer an option.

Many of the recommendations, we believe, could be implemented immediately, with the more strategic elements becoming practice within the coming year. Time is of the essence if Canada is to re-equip the military with the equipment it needs to perform its duties and to do so in a way that builds and sustains a viable domestic defence industrial base.

Industry is ready to do its part and appreciates the opportunity to share its perspective with Government....

## Summary of Recommendations:

### RECOMMENDATION #1

#### ESTABLISH AND IMPLEMENT A DEFENCE INDUSTRIAL POLICY

- 1-1 Align defence procurement strategies and processes to support the policy.
- 1-2 Articulate and nurture critical defence industrial capabilities that are needed to support Canada's defence, sovereign and economic interests.
- 1-3 Enable the success of those critical capabilities through 'cluster', R&D, IRB, export and procurement strategies.
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*(Defence and the economy are inter-dependent elements in a sovereign, outwardly-looking and competitive Canada.)*

### RECOMMENDATION #2

#### IMPROVE DEFENCE PROCUREMENT PROCESSES & PRACTICES

Enable an environment where the procurement process and operating culture result in effective program delivery and an optimal economic return to taxpayers by:

##### 2-1 Increasing accountability

- a. Make managers accountable for program delivery, not just for following the process.
- b. Balance program delivery objectives against legal and contract risk.
- c. Allocate risk between Government and industry where it can best be managed, and reflect this in contract terms and conditions.
- d. Create a cadre of project management and procurement professionals.

##### 2-2 Increasing transparency

- a. Share annually, with Canadian industry, the ongoing plan to equip the Canadian Forces, including project timing and budgets.
- b. Communicate openly with industry early, often, and throughout the process.
- c. De-layer the organizational structure and simplify the process.

**2-3 Shifting the “default” decision making to encourage procurement from qualified Canadian sources – for example:**

- a. Articulate domestic industrial objectives during the requirement definition stage (i.e. before the procurement strategy is chosen).
- b. Shift to rated requirements from mandatory ones in the selection process to ensure overall best value including economic objectives.
- c. Shift to indigenous in-service support (ISS) after the warranty period on significant military equipment procured from off-shore sources.
- d. Buy what Government has co-developed with Canadian industry.

**RECOMMENDATION #3**

**STRENGTHEN DEFENCE PROCUREMENT GOVERNANCE**

- 3-1 Create a single point of accountability at the Cabinet level responsible for both defence equipment and the defence industrial base.
- 3-2 Create a Defence Industry Advisory Council reporting at the Ministerial level to offer continuing advice to the Government on the creation, implementation and ongoing management of the defence industrial policy.
- 3-3 Create a Joint Industry-Government Procurement Advisory Council reporting at the ADM level to improve the understanding and management of procurement issues between Government and industry.
- 3-4 Report to Parliament annually on the state of readiness and competitiveness of the defence industrial base and its contribution to the national economy.



# *APPENDIX B*

## *Canadian Association of Defence and Security Industries Presentation*



### **Canadian Association of Defence and Security Industries (CADSI)**

**Domestic defence and security industries are vital  
contributors to:**

Canadian sovereignty  
National security  
Robust Canadian economy

March 19<sup>th</sup> 2010

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## CADSI – Who we are and what we do

- **Not for profit, national, business association**
- **Elected Board of Directors**
- **800+ defence and security companies in 177+ ridings providing 90,000 Canadian largely knowledge-based jobs**
- **Advocacy/representation**
- **Networking/business development**
- **Member services**
- International tradeshows/missions**
- CANSEC trade show: June 2<sup>nd</sup> – 3<sup>rd</sup> 2010**

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## What are Canada's Domestic Defence and Security Industries?

- **Canada's Defence and Security Industries include product, technology and service companies**
- **These companies serve the needs of, for example:**

■ Army	RCMP	Border Security Agency
■ Air Force	CSIS	Port Authorities
■ Navy	CSE	First Responders
■ Coast Guard	Provincial Police	

- **Dual use technologies mean that \$10B in defence and security sales are matched by at least \$10B in commercial sales**
- 50% of business is export sales (80% of which is to the USA)**

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## **CADSI Procurement Report**

- **Commissioned by Ministers of Industry, National Defence and PWGSC**
  - **Frustrated over procurement process**
  - **Concern that economic return to Canadian jobs not commensurate with \$ spent**
  - **Interested in advice from outside of government**

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## **Consultation Process**

- **4 Streams:**
  - **8 workshops**
  - **One-on-one interviews**
  - **International research**
  - **Written submissions**
- **Input was mostly from industry with pockets of advice from academic circles**
- **Contributions from 450 people in total**
- **Start to finish – 12 weeks**

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## Report's Premise

- **Refurbishing the Military is essential and urgent**
- **Defence and the Economy are mutually reinforcing not mutually exclusive**
- **Defence is managed trade**
- **Canada to spend \$240B in CFDS – “can’t get there from here”**

**Strategic opportunity that can’t be missed**

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## Report Findings

- **Defence procurement requires urgent attention and can be fixed**
- **An industrial strategy promotes optimal return on investment**
- **Process changes will produce more effective program delivery**
- **Governance to improve government efficiency**

**Inter-related solution set**

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## A Defence Industrial Policy

- **Aligned to CFDS and market opportunities**
- **Identified capabilities of sovereign or economic value**
- **Nurture and develop capability and capacity through export, R&D and procurement strategies**
- **“Connect the dots” around town – e.g. SADI, Advantage Canada, IRAP, GOA, IRB**
- **Canada’s uniqueness**

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## What is in Canada’s Industrial Base?

Canada’s Sovereignty	Economic Benefit to Canada
<ul style="list-style-type: none"> <li>■ Arctic/cold weather capabilities</li> <li>■ Command, Control, Communications, Computers, Intelligence, Surveillance &amp; Reconnaissance (C4ISR)</li> <li>■ Cyber security</li> <li>■ Maritime domain awareness</li> <li>■ Intelligence &amp; surveillance functions including indigenous satellite, remote sensing and space capabilities</li> <li>■ Modify, upgrade &amp; maintain defence equipment through its life cycle</li> <li>■ Munitions</li> <li>■ Soldier survivability</li> <li>■ Surveillance and control of borders &amp; ports</li> </ul>	<ul style="list-style-type: none"> <li>■ Shipbuilding &amp; marine industries</li> <li>■ Aerospace including avionics, composites, engines &amp; landing gear</li> <li>■ Robotics &amp; unmanned vehicles</li> <li>■ Cross-platform simulation &amp; training</li> <li>■ Armoured land vehicles &amp; the Canadian auto sector supply chain</li> <li>■ In-service support</li> </ul>

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## **CADSI's Next Steps**

- **Advocate report and its recommendations to MPs on the Hill**
- **Promote attention, discussion and support from third parties e.g. academe, other associations, trade magazines, media**
- **Meet with key federal Ministers**
- **Map out the way forward and timetable with senior government officials**

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## **CADSI Contacts**

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# APPENDIX C

## *Canadian Industry: An Essential Element within the North American (Defence) Technology and Industrial Base*



### **Canadian Industry: an Essential Element Within the North American (Defence) Technology and Industrial Base**

by  
Norm Weir  
Canadian Commercial Corporation



Canadian Defence Industrial Base Workshop  
at Queen's University, Kingston, ON

March 19th, 2010



## Outline

- What is the North American Technology and Industrial Base (NATIB)?
- Who are the Canadian players? (Industry and Government)
- Vehicles of the Road
- How does Canadian industry support the NATIB?
- Conclusion



## What is the NATIB?

- Department of Defense Instruction Number 2035.01 of February 27, 2006, states that:

Canadian industry is uniquely recognized as an element of the national technology and industrial base in Section 2500(1) of 10 U.S.C.



## What is the NATIB? (Con't)

- From § 2500. Definitions  
(1) The term “national technology and industrial base” means the persons and organizations that are engaged in research, development, production, or maintenance activities conducted within the United States and Canada.



## Vehicles of the Road

- Exchange of notes (October 26, 1950) between Canada and the United States of America giving formal effect to the statement of principles for economic co-operation
- Defence Production Act
- Defense Production Sharing Agreement
- Defense Development Sharing Agreement
- CCC Letter with NASA



### Vehicles of the Road (Con't)

- Foreign Comparative Testing
- Federal Business Opportunities
- Technical Support Working Group
- Cooperative Research and Development
- Industrial Security and Controlled Goods
- U.S. Canada Joint Certification Program
- Central Contractor Registration



### Vehicles of the Road (Con't)

- US Army International Technology Centre  
Americas (Canada)
- FARS and DFARS
- DoD Instruction 2035.01 of 02/27/2006



## Turning Road Obstacles into Opportunities

- Berry Amendment
- SBA and SBIR Programs
- ITAR



## Who are the Canadian Government Players?

- Canadian Commercial Corporation
- Department of Foreign Affairs and International Trade
- Department of National Defence
- Department of Public Works and Government Services
- Industry Canada



## CCC – U.S. Procurement Regulations

- DFARS 225.870 Contracting with Canadian Suppliers
- DFARS 225.870-1 (a) Contracts endorsed by and awarded to CCC have a guarantee of performance by the Government of Canada
- DFARS 225-870-4 (a) purchases from Canadian suppliers shall be made through CCC
- DFARS 225.872-1 Waiver of Buy America Act
- DFARS 225.225-7013 Duty-free entry
- DFARS 215.403-1 (4) (A) Waiver of requirements for CCC to submit cost and pricing data



## Who are the Canadian Industry Players?

- Large companies
- Small and Medium Enterprises
- Individuals and Academia



## How does Canadian industry support the NATIB?

### Examples:

- GDLS-C = LAVs
- Héroux Devtek = Landing Gear
- MDA = RADARSAT II
- ULTRA Electronics TCS = Radios
- GDOTS = Ammo
- CAE Flightscapex = Flight Recorder Playback and Analysis
- Certicom = MQV-based Elliptic Curve Cryptography (ECC) IP



## How does Canadian industry support the NATIB? (Con't)

- Amenaza Technologies = Decision Tree Threat Risk Analysis Software
- C4I Consultants = Modeling and Simulation Software
- Airboss Defense = Chemical, Biological, Radiological, Nuclear Personal Protective Equipment
- Viking Air = de Havilland aircraft products
- Vin-Tech = Hexavalent Chromium removal



## How does Canadian industry support the NATIB? (Con't)

- Research In Motion = BlackBerry
- Armatec = Survivability products
- Nanometrics = Broadband Seismometers
- MSE of Canada = Failsafe Insulation Monitors
- Allen Vanguard = Protection and counter-measures against lethal threats



## Canada in Fed Biz Opps

- Award from this solicitation can only be made from a domestically manufactured (US or Canada) bearings and bearing components
- The United States Special Operations Command (USSOCOM) intends to award a sole source contract to General Dynamics Ordinance and Tactical Systems - Canada ... in accordance with FAR 6.302-1; (10 U.S.C. 2304 (c)(1)), Only one responsible Source and No Other Supplies or Services will Satisfy Agency Requirements.



### Canada in Fed Biz Opps (Con't)

- NOTICE OF INTENT TO AWARD A SOLE SOURCE, FIRM FIXED PRICE CONTRACT with Active Gear of Canada. Active Gear will provide heater systems for Ft. Wainwright, AK. This notice is not a request for competitive proposals not a solicitation of offers. A determination by the Government not to compete this requirement based on responses to this notice is solely within the discretion of the Government. Information received will be considered solely for the purpose of determining whether to conduct a competitive procurement. A solicitation will not be issued.



### Canada in Fed Biz Opps (Con't)

The solicitation document contains information that has been designated as 'Militarily Critical Technical Data'. Only businesses that have been certified by the Department of Defense, United States/Canada Joint Certification Office, and have a valid requirement may have a copy of the solicitation document and technical data.



### Canada in Fed Biz Opps (Con't)

- The proposed contract is restricted to the National Technology Industrial Base. Accordingly, the dyes must be manufactured in the United States, its outlying areas, or Canada. Other foreign sources are not eligible for award.



### Conclusion

- That U.S. Code, Policy and Directives confirm that Canada is indeed an essential element of the North American (Defence) Technology and Industrial Base

## *About the Authors*

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**Timothy I. Page** is president of the Canadian Association of Defence and Security Industries (CADSI). The son of a naval commander and the grandson of an army major general, Tim Page's career has been within the business sector. In his current position, Mr. Page advocates to the federal government on behalf of the 860 Canadian-based businesses that are CADSI members. Current policy issues of interest include defence procurement reform; sustaining an internationally competitive defence and security industrial base in Canada; strategically leveraging defence and security procurements to Canada's economic, trade, technology, and industrial advantage; and mitigating the impact of ITAR interpretations on bilateral defence and security trade with the United States.

**Binyam Solomon** is senior defence scientist at the Centre for Operational Research and Analysis-Defence R&D Canada, and team leader, Defence Economics Team, at the National Defence Headquarters. He is an adjunct professor at Carleton University and the Royal Military College, and co-director of the Institute for Defence Resource Management. He completed a PhD in economics from the University of York, United Kingdom. He has previously worked for the Department of National Defence as chief economist, at Statistics Canada as a research analyst, and at BCS Consulting as a professional consultant. Dr. Solomon has published articles and reports on various quantitative and defence economics issues ranging from time-series analysis and economic modelling to the defence industrial base, peacekeeping, and defence resources management. His research interests include economic aspects of international security and defence management issues.

**Craig Stone** is the director of academics at the Canadian Forces College and head of the Department of Defence Studies at the Royal Military College of Canada. He has a BA in economics from the University of Manitoba and an MA and PhD in war studies from the Royal Military College of Canada. Dr. Stone joined the academic staff at the Canadian Forces College in the summer of 2005 after 29 years in the Canadian Forces. His area of expertise is in defence economics and defence policy with current research focused on the defence budget, military procurement, and the state of the Canadian defence industrial base.

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**Gregory H. van Bavel** is a defence scientist with the Department of National Defence (DND). Before joining DND, he received a PhD in physics, and worked as a staff scientist at Oxford Instruments in the United Kingdom, at Lockheed-Martin in Palo Alto, and at the Center for Remote Sensing in Fairfax. Dr. van Bavel joined DND in 2000, and started work on naval surveillance and above-water warfare. From 2002 to 2006, he designed and evaluated joint military experiments. He studied defence S&T operations at the DND lab in Ottawa from 2006 until 2008, when he joined the Materiel Group Operational Research team.

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