

2014  
ANNUAL REPORT



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NATIBO

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Wendy Gilmour  
Canada Co-Chair  
Director General, International  
and Industry Programs  
Department of National Defence

A handwritten signature in black ink, appearing to read 'Andre Gudger', written over a horizontal line.

Andre Gudger  
United States Co-Chair  
Director Manufacturing  
and Industrial Base Policy  
Department of Defense

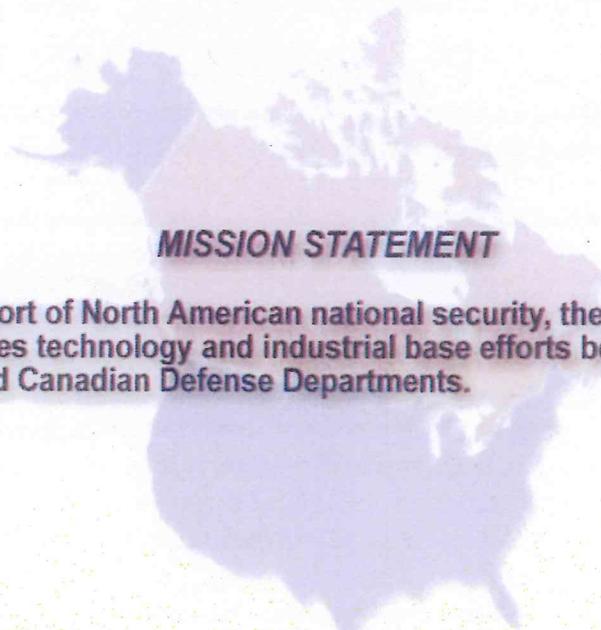


## Calendar Year 2014 Annual Report

### Background

At the 1985 Shamrock Summit, Ronald Reagan, President of the United States (U.S.), and Brian Mulroney, Prime Minister of Canada, pledged to work to reduce barriers and to stimulate the two-way flow of defense goods, establish a free exchange of technology, knowledge, and skill involved in defense production. This led to the establishment of the North American Defense Industrial Base Organization (NADIBO) Charter signed by the two Nations' Defense Departments on March 23, 1987. At that time, the bilateral organization focused on the combined capacity and capability of the defense industrial bases of the U.S. and Canada to jointly support military requirements. In 1992, the Organization determined it needed to review its objectives and explore new roles and initiatives to respond to the challenges of the 1990s. This led to an agreement for a broader mission for the organization, focusing not just on industrial capacity issues, but on technology issues as well, which was reflected in the organization's name change to the North American Technology and Industrial Base Organization (NATIBO).

In 2012, with changes in the organization with in the Department of Defense, the responsibility for administering the NATIBO MOU became the responsibility of the Manufacturing and Industrial Base Policy (MIBP) Office. With this change, the focus of the organization was made to ensure greater emphasis on identifying and analyzing key industrial sectors that are critical to defense and developing strategies to enhance and sustain the shared defense industrial base. The Department's goal, working through NATIBO, is to increase the integration of the North American Defense Industrial Base. In 2014, NATIBO continued to work collaboratively to advance our common interests. The NATIBO continues to support areas of interest under previous NATIBO concerns, such as leveraging technology between civilian and military applications and developing manufacturing technologies to support military transformation production strategies, but recently has truly refocused to supporting its more traditional role of focusing on industrial base/preparedness concerns.



### **MISSION STATEMENT**

**In support of North American national security, the NATIBO facilitates technology and industrial base efforts between the U.S. and Canadian Defense Departments.**

- The Department fully supports the concept of an integrated North American Defense Industrial Base that takes advantage of commercial relationships to support cost effective procurement of military equipment, and ensure secure sources of supply.
- Coordinated responses to common areas of concern within the industrial base will optimize the use of each nation's resources.
- The use of existing mechanisms, such as NATIBO, should be leveraged to ensure that the highest level of cooperation is achieved.

### **Focus/Objectives of NATIBO**

- Promote the development, administration, communication, and execution of the U.S. Department of Defense and Canadian Department of National Defence (DND) technology and industrial base programs and policies.
- Foster cooperation between the Governments of the U. S. and Canada in development of coordinated technology and industrial base policies and programs, including policies and programs that promote the integration of the defense and commercial industrial sector and the greater use of dual use products and technologies.
- Leverage resources through cost sharing and economies of scale afforded through coordinated studies and projects involving research, development, industrial capability, and logistics programs.
- Promote the interchange of technology and industrial base data between Canada and the U.S., the military services, other government agencies, and industry.

- Promote coordination of technology and industrial base planning and insertion programs undertaken by the responsible U.S. and Canadian departments and agencies in support of their national security responsibilities.
- Facilitate enhanced joint activity through Canada/U.S. involvement in studies and implementation of resulting technology and industrial base recommendations.
- Ensure that North American technology and industrial base considerations are taken into account during U.S. or Canadian military and/or civilian emergency planning activities.
- Enhance the national security of both nations by promoting the competitiveness of the North American technology and industrial base.
- In performing the above, raise issues with relevant bi-lateral committees in those cases where interface between the NATIBO and these committees is determined to be advisable.

### **Memorandum of Understanding (MOU)**

On May 30, 2001, the Department of Defense of the USA and the Department of National Defence for Canada entered into an agreement whereby the Defense Departments can more efficiently continue their efforts to improve the defense posture of the North American technology and industrial base. The MOU (short title NATIBO) is an umbrella document that covers research, development, technical demonstration and technology insertion activity in the two Defense Departments and “grandfathers” activity performed by NATIBO under the charter. The MOU allows three basic activities: Information Exchange, the creation of Working Groups, and formal Project Arrangements (PAs). The MOU also provides a recognized framework for which funds can be transferred between the participants in support of NATIBO studies and projects.

The objectives of the MOU are to:

- Effectively leverage dollars/resources and reduce redundant efforts through bilateral cooperation on studies and projects relating to the defense technology and industrial base of the U.S. and Canada.
- Achieve rapid technology insertion and commercialization of emerging technologies that can be used in the manufacture and repair of military weapon systems.
- Permit a wide variety of work to be accomplished on a single project from paper studies and initial research to technology insertion efforts.

### **Organization**

The NATIBO is co-chaired by the Deputy Assistant Secretary of Defense for Manufacturing and Industrial Base Policy (DASD MIBP) for the U.S. and the Director General, International & Industry Programs (DGIIIP) for Canada. U.S. members represent the Office of Secretary of Defense (OSD), Army, Navy, Air Force, Defense Logistics Agency (DLA), and the Defense Contract Management Agency (DCMA). Canadian representation is from the Department of National Defence (DND). These representatives form the Steering Committee and provide strategic direction, make recommendations on proposed projects, review the progress of the organization, and act as a conduit for addressing recommendations to U.S. and Canadian authorities. Under the

provisions of the MOU, Terms of Reference (TOR) for the Steering Committee were prepared, staffed and implemented July 11, 2001. There are four observing organizations that provide assistance to the Steering Committee as appropriate. These observers are the U.S. Department of Commerce, Public Works and Government Services Canada (PWGSC), Industry Canada (IC), and Canadian Commercial Corporation (CCC).

### **Steering Committee Members**

(2014-present) Mr. Andre Gudger, MIBP, Current U.S. Co-Chair  
Ms. Wendy Gilmour, DGIIIP/DND Canadian Co-Chair  
(2013-2014) Ms. Elana Broitman, MIBP, Former U.S. Co-Chair  
Mr. Michael Slack, DCMC/DGIIIP/DND  
Mr. John Yu, MIBP, OSD  
Mr. Dan Cundiff, CTO, OSD  
Ms. Annmarie Martin, U.S. Army  
Mr. Peter Chase, U.S. Navy  
Mr. Alan Taylor, U.S. Air Force  
Mr. Joseph Seawell, DLA  
Ms. Mary Grace Dondiego, DCMA  
(2014-present) Ms. Beth Kinzer, MIBP, OSD, Secretariat  
(2013-2014) Ms. Elizabeth Royall, MIBP, OSD, Secretariat

### **Secretariat**

The Secretariat is responsible for all business management functions in support of the NATIBO, including the planning and recording of meetings, the correspondence with and between sub-committees, the maintenance of a central repository of data/files on NATIBO activities, and other business management duties as assigned by the Steering Committee. The Secretariat is also responsible for selected functions in support of the MOU.

### **Business Development Working Group (BDWG)**

The BDWG provides a permanent forum for the exchange of views on the means of utilizing the technology and industrial base to meet defense program objectives, and through this forum identify mutually beneficial industrial base activities between DoD and DND. The BDWG will also facilitate exploratory discussions and review documentation prepared by proponents for the purpose of establishing a Working Group or PA under the provisions of the MOU. The BDWG will also advocate and increase awareness of all NATIBO sponsored activities.

### **Calendar Years 2014 Activity**

**Business Development Working Group Meeting #1.** In April 2014, a BDWG meeting was held in Washington, DC and via telecom. This provided an opportunity for each participant to re-engage with the NATIBO as there had not been a BDWG meeting since fall 2012, and the entire NATIBO office had changed personnel. At this meeting, each main participant (US Services & DND) provided possible areas of collaboration that they could envision in the next few years. The biggest agreement at the end of the day was that NATIBO had to refocus its efforts on common industrial base issues and not on technology development and insertion. It was decided that current Working

Groups would continue to be supported however only working groups with industrial base focus would be added.

**Business Development Working Group Meeting #2.** In October 2014, a BDWG meeting was held in Washington, DC. This was an opportunity for the DND to identify areas of potential collaboration that it felt it was in a position to work on. Several areas of interest were generated from this discussion:

- 1) A working group with a focus on industrial base assessments with primary focus on methodologies, best practices and engagement strategies.
- 2) A study of the US and Canadian ammunition supply situation linked to the decrease in defense spending and a decrease in overseas operations.
- 3) A study of Precision Guided Missiles and whether it would be possible to identify key components that could be stockpiled in advance to help decrease the production ramp-up time in the event of another coalition overseas operation.

**NATIBO Annual Steering Committee Meeting.** It was determined that no Steering Committee Meeting was needed in 2014 as there were no significant activities that required Steering Committee action or approvals.

**Working Group Establishment in Progress.** Working Groups provide the framework for identifying mutually beneficial technology and industrial base cooperative activities between the Participants. One new Working Group Terms of Reference was initiated in 2014.

- **Initial Stakeholder Engagement & Sector Analysis (SESA) Working Group Discussions.** In January and September 2014, representatives from DND, MIBP and Industry Canada met to discuss and be introduced. The focus of the initial meeting was to brief the Defence Industrial Base assessments it had recently started as part of the Defence Procurement Strategy (DPS) recently announced by the Government of Canada, and to brief the Defense Industrial Base assessments MIBP has been conducting and how the processes are followed and administered. This was a very productive session and it was recommended that a Terms of Reference (ToR) be developed so that the US and Canada could discuss their similar and differing methodologies, processes and expectations in a more formal setting. The second meeting was held in order to continue the discussion on the development of the ToR and for Canada to brief the particulars of an upcoming survey they were planning on releasing to industry in early 2015. The ToR for the SESA WG is expected to be approved in early 2015.

**Ongoing Efforts.** The NATIBO MOU was signed in May 2001 and 16 working groups have been established since July 2001. These working groups continue to work under and support NATIBO MOU objectives. These working groups have a 5 year approved ToR, however can be extended with additional 5 year intervals at the request of the US and Canadian POCs.

- **US/CA Infantry Soldier Modernization Working Group (ISMWG).** Est. June 2008, Expires June 2018. During 2014, the ISMWG did not have a formal meeting, but they were able to exchange information under their ToR in order to continue assisting both countries.
- In November 2014, PEO Soldier passed information to Ian Craigie through the Canadian POC (Dany Theriault) on Concealable Body Armor (CBA). Mr. Craigie informed PEO Soldier at a NATO meeting that Canada was interested in procuring CBA from the US Army. After this

discussion, the US Army provided the US Army standard size tariff and specifications for the sizing standards. Additionally, Canada sent the US Army a Q&A document that was populated and returned which provided additional information on CBAs. Canada is using this information to develop a Letter of Request which is intended to lead to a Foreign Military Sales contract.

- During 2014, Canada provided the US an update on the Integrated Soldier Systems Project (ISSP). The US has found this information vital as they are currently entering Milestone C for the Nett Warrior Program (US version of ISSP) and this has allowed the US to inform leadership of alternative options.
- Plans for 2015 include continuing discussions between the Working Group members. This increased activity is not expected until later in 2015 as ISSP is expected to be in contract within the first part of the year after which they will be in a better position to share more info that may be further helpful to US colleagues.
- **Undersea Technology Innovation Working Group (UTI WG). Est. February 2012, Expires February 2017.** The focus of the work in 2014 was on automated target recognition (ATR) as it relates to the analysis of sonar data, looking for underwater sea mines. The goal is to try and have the Canadian ATR algorithms running on a US underwater unmanned vehicle (UUV). The WG is also looking at how the US JAUS work could help Canada address a cross-domain communication problem (i.e. underwater vehicles talking to surface vehicles talking to air vehicles). The two principal investigators also organized a planning meeting around the margins of the US Unmanned Systems Review, held in Panama City Florida, in January 2015.
- This WG is planning a meeting around the margins of the US Unmanned Systems Review to be held in Panama City Florida in January 2015. Additionally, future plans could see using this NATIBO WG as the umbrella for a new Project Agreement in the area of long endurance UUVs for underwater sensing. Further discussions are planned between DRDC and ONR in the early part of 2015.
- **Autonomous Underwater Vehicle (AUV) WG. Est. July 2010, Expires July 2015.** This WG was rolled up into the UTI WG above as they realized the ToR for the AUV WG was too narrow. The ToR for this WG have not been used as all meetings and activities have taken place under the UTI WG umbrella. This WG ToR will not be renewed in 2015.
- **Multi-Service Fuel Cell Working Group (MSFC WG). Est. October 2001, Expires December 2020.** Multi—Service Fuel Cell Working Group (MSFC WG). Meetings of the MSFC WG will continue to be held in conjunction with the U.S. Fuel Cell Technology WG, with discussions centering on the development of the U.S. Fuel Cell Technology Road Map and potential joint efforts and information exchanges between the US and Canada. There was a bilateral meeting held in Canada in August 2014. Visits were made to the Canadian DND and several battery and fuel cell companies in the area. Specifically the US team expressed interest in the work being conducted by Ballard Fuel Cells, which produces cell stacks for several fuel cells that are being considered by the US military.
- The WG continues to meet on a quarterly basis to exchange information and work on internal projects. There have not yet been any initiatives started on a US/CA bilateral level due to lack of funding on both sides. However Canadian companies and government personnel will be

invited to attend the Joint Services Power Expo being planned for September or October of 2015. The bilateral to date has provided an important mechanism to link up industry and sometimes SMEs that rely on government guidance in terms of requirements or necessary developments in the military power sector to aid in product improvement.

- **North American Munitions Industrial Base (NAMIB) Working Group. Est. August 2010, Expires August 2015.** The Working Group planned a meeting in Canada in 2014 but was unable to bring it about. The Working Group POCs continue to communicate and exchange information of value to both sides under the umbrella of the Working Group."
- As it continues to provide an umbrella for information exchange, both POCs have confirmed that they want to renew the Terms of Reference for the Munitions Working Group beyond August 2015.
- **U.S./CN Homeland Defense Working Group. Est. 6 April 2005, Expires 6 April 2015.** The WG had no activity in 2014, and it is highly unlikely the ToR will be renewed in 2015.
- **Critical Infrastructure Protection WG. Est. January 2006, Expires February 2016.** This WG had no activity in 2014 and none is expected in 2015. The likelihood of this WG ToR expiring in 2016 is high.
- **Alternative Fuels Working Group.** This WG ToR expired in June 2014 after 5 years under NATIBO. The Alternative Fuels Working Group had been on hold since 2012 due to the changing focus towards bio-fuels. No request for renewing the ToR was requested.

### Planned Activities for Calendar Year 2015

All currently active NATIBO Working Groups have identified the desire to continue their work while looking for opportunities to share information and collaborate on potential future projects. All stakeholders will be asked to identify potential collaborative projects/working groups at a BDWG meeting in 2015. Following this, potential working groups will be asked to produce Terms of Reference for approval by the Steering Committee either electronically or at a Steering Committee meeting. Concurrent to the stakeholders' processes for identifying collaborative efforts, the BDWG will also work to identify areas of potential collaboration which fall outside of the stakeholders' focus areas, such as increased participation in the Joint Industrial Base Working Group.

### Funding

The NATIBO has no direct funding line in the U.S. or Canadian defense budget systems. Historically, projects were funded from the operating budget of member organizations. The U.S. Army, U.S. Navy, U.S. Air Force and Canada's DND equitably supported the NATIBO Secretariat.

Historically, NATIBO functions with 'payment in kind' contributions from its members. Previously the U.S. Army printed and published studies and brochures. The U.S. Air Force paid expenses associated with the NATIBO exhibit. OSD sponsored the website and Canada provided materiel for the exhibit.

## Conclusion

Over the years, U.S.-Canada defense cooperation has been close with both nations benefitting from a highly integrated North American technology and industrial base. With both nations facing complex challenges of declining defense budgets, quickly changing threats to national security, and aging equipment and infrastructure, the U.S. and Canada will face increased challenges of advancing and maintaining our historical technological superiority with reduced government research and development funding. Meeting these challenges requires the leveraging and promoting of commercial use and investment in technologies which will have both defense and industrial applications. The commitment to a robust defense industrial base remains high for both governments. Broadening the technology industrial base to include both U.S. and Canadian resources will help to ensure that where possible sharing investment costs across a broader base will improve the affordability of defense systems. The key to the future is rational use of industrial, economic, and technological resources in the U.S. and Canada to achieve the greatest attainable military capability at the lowest cost. NATIBO will be a key forum in facilitating the achievement of these goals.