





Major Marco Vunak

How Canada Can Be a Better NATO Ally by Participating in the NATO Standardization Process

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Exercise Solo Flight

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How Canada Can Be a Better NATO Ally By Participating in the NATO Standardization Process

When politicians or journalists speak about support to the North Atlantic Treaty Organization (NATO), most of the conversation is focused on either the NATO agreed to goal of two percent of a member's Gross Domestic Product goes to its national defence spending¹ or the provision of NATO troops to a training event (like Ex STEADFAST DEFENDER 21), NATO led mission (like the Implementation Force used in Bosnia and Herzegovina or the mission in Afghanistan following 9/11), or the current Enhanced Forward Presence (which Canada supports via Op Reassurance with roughly 915 personnel, one frigate and five CF-188s)². These are easy items to measure because you can read in the NATO Secretary General's Annual Report³ where an Ally is in regards to meeting the two-percent goal or you can see soldiers, air crews and naval forces doing their jobs when supporting NATO operations and training events.

There are two slightly lesser-known ways to support NATO – the provision of military staff to various NATO organizations. There are vacant positions on the International Military Staff that are important to the efficient running of NATO and their subordinate organizations like Allied Command Operations, Allied Command Transformation, or any of the 29 Centres of Excellence.⁴ The provision of military staff is difficult for many nations, as defence budgets shrink and demands at home (like COVID-19, natural disaster responses, support other, internal or external, national defence needs) require personnel from the same pool of military personnel.

¹ 'NATO - Official Text: Wales Summit Declaration Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council in Wales, 05-Sep.-2014', accessed 13 April 2022, https://www.nato.int/cps/en/natohq/official_texts_112964.htm.

² 'Operation REASSURANCE', n.d., https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-reassurance.html.

³ The Secretary General's Annual Report 2021 (NATO, 2022).

⁴ Mathieu Brulias, NATO Accredited Centres of Excellence 2022 (NATO Allied Command Transformation, 11/21).

The other way Allies can support NATO is by supporting the standardization process, which can be a low-cost method to support NATO and its activities. This is a much harder thing to "see" how it helps the alliance build a stronger force because most of the activities are "invisible" to the average service person. There are two types of standards – operational and material. Almost all the operational standards belong to one of the Military Committee Standardization Boards (MCSB) (Joint, Maritime, Land, Air and Medical). Material standards belong to boards like the Logistics Committee, the Consultation, Command and Control Board or the Conference of National Armaments Directors. There is an occasional cross over Standardization Agreement (STANAG); like the Logistic Committee and a working group from the Military Committee Land Standardization Board may collaborate on a STANAG. In accordance with AAP-3(K), a STANAG consists of two parts – a covering document that explains the standard and how it should be implements and the second part is the NATO standard⁵.

Following a brief history of NATO and a brief explanation of what standardization is; this essay will propose areas that Canada should engage in to be better at the NATO standardization process. By being a better participant in the process, Canada will become a better alliance member; the follow-on effect would be becoming more interoperable with our NATO Allies and Partners.

NATO was formed in 1949, its twelve founding members⁶ formed what may have been considered to be a purely defensive transatlantic treaty⁷. In reality, the treaty served the following

⁵ AAP-03 DIRECTIVE FOR THE PRODUCTION, MAINTENANCE AND MANAGEMENT OF NATO STANDARDIZATION DOCUMENTS, vol. K (NATO, 02/18).

⁶ Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom and the United States of America

⁷ NATO, 'A Short History of NATO', NATO, accessed 12 May 2022, https://www.nato.int/cps/en/natohq/declassified_139339.htm.

three purposes: "deterring Soviet expansionism, forbidding the revival of nationalist militarism in Europe through a strong North American presence on the continent, and encouraging European political integration"⁸. With the formation of such an alliance, there developed a need for standards for operations, training, equipment, and other material, so the initial twelve nations could have their armed forces effectively interact with each other. The Military Standardization Agency held its first meeting in 1951.⁹ NATO standardization has evolved over the past 70 plus years from not having any standards to a data base that houses over a thousand standards¹⁰ covering everything from doctrine to material standards to training manuals.

What is standardization? NATO defines it as, "the development and implementation of procedures, designs and terminology to the level necessary for the interoperability required by Allies, or to recommend useful practices in multinational cooperation"¹¹. Standardization is a process that requires the involvement of all nations and their subject matter experts in the process from the generation of an idea through the development of the concept to the finished product. Standardization allows the Allies to be more interoperable, which in turn makes them more efficient because there are less misunderstandings during training or operations. NATO standardization is broken up into several components, for this essay, though we will only talk about ratification, implementation, and possible effects on interoperability. Ratification and implementation data is visible to all 30 nations via the NATO Standardization Document Database.

⁸ Ibid

⁹ 'NSO Public Website', accessed 12 May 2022, https://nso.nato.int/nso/home/main/home/nato-standardization-history.

¹⁰ 'NSO NSDD', accessed 12 May 2022, https://nso.nato.int/protected/nsdd/main/standards.

¹¹ AAP-03 DIRECTIVE FOR THE PRODUCTION, MAINTENANCE AND MANAGEMENT OF NATO STANDARDIZATION DOCUMENTS, vol. K (NATO, 02/18).

The first thing Canada needs to do is to talk about standardization and its importance, with the same frequency we speak about interoperability. A search of CFC papers resulted in finding one paper written with standardisation in the title¹² and seventeen papers that mention interoperability in their titles¹³. Standardization and interoperability are intertwined, so much so that they are one of the fourteen planning domains of the NATO Defence Planning Process¹⁴. In Canada, it appears that the discussion is focused solely on interoperability, in *Strong, Secured, Engaged* the latest defence policy, interoperability is mentioned a dozen times and there is no mention of standardization. If we are not standardized in terms of how we operate, communicate or types and purchasing of materiel with our allies it makes it hard to be interoperable.

A good example of the connection between standardization and interoperability is the great Baltimore fire of 1904¹⁵. A fire started in a Baltimore business, it very quickly grew, and the local fire department sent out the call for help. Washington DC sent firefighters and equipment by train, and when they arrived it was discovered that Washington DC hoses could not connect to Baltimore fire hydrants. As more fire departments arrived, some found they could connect to the hydrants, while others were like the Washington DC department and unable to connect hoses to the fire hydrants. After 30 hours the fire was extinguished, 1,231 firefighters, 57 engines, nine trucks, two hose companies, one fireboat, and one police boat were involved. The fire claimed 1,526 buildings in an area of seventy city blocks¹⁶. Following the fire, a national

¹² Chief of Military Personnel Department of National Defence, 'CFC Papers', 13 December 2005, <u>https://www.cfc.forces.gc.ca/303/171/171-</u>

eng.html?search_where=title&keywords=Standardisation&programLimit=all&yearLimit=all&submit=Search. ¹³ Chief of Military Personnel Department of National Defence, 'CFC Papers', 13 December 2005, https://www.cfc.forces.gc.ca/303/171/171-

eng.html?keywords=Interoperability&start=9&search_where=title&yearLimit=all&programLimit=all&submit=Sear ch.

¹⁴ Dieter Schmaglowski, 'The NATO Defence Planning Process (NDPP): An Overview'.

¹⁵ Momar D Seck and David D Evans, 'Major U.S. Citites Using National Standard Fire Hydrants, One Century after the Great Baltimore Fire', 0 ed. (Gaithersburg, MD: National Institute of Standards and Technology, 2004), https://doi.org/10.6028/NIST.IR.7158.

standard on fire hydrants was established. One-hundred years after the Baltimore fire, only 18 of the 48 most populous US cities had installed national standard fire hydrants and 107 years later, a similar incident occurred in Oakland, CA¹⁷. Though it would appear some sort of Mutual Aid Agreement could have been in place for both fires, it would appear any such agreement may not have covered the critical infrastructure (fire hydrants and connectors). One of the desired outcomes of any NATO training exercise, is how the NATO standard did in the exercise – was the standard clearly written, did it cover most scenarios, was it easy use. This can be measured either by a questionnaire sent out to the training audience or by injecting events into the exercise that test the standard.

The next point for discussion is there needs to be formal direction from either the Chief of Defence Staff or the Strategic Joint Staff on how Canada would participate in the NATO standardization process. This would include direction on when Canada could volunteer to be a custodian of a NATO STANAG, what STANAGs are a priority for Canada to work on, funding to attend working groups and detail the ratification and implementation process. This direction does not need to be as formal as Poland, which has a legal framework for defence standardization¹⁸. The current published direction, which was last produced in 2001, is *National Defence Headquarters Standard Operating Procedures for International Programs*¹⁹. This publication lays out how the CAF is supposed to operate in various international forums, like the American, British, Canadian, and Australian Armies Program, equivalent navy and air force programs and NATO. All major programs are broken down into their subcomponents as of 1999-2001 timeframe. Since then, the CAF/DND has undergone a few major reorganizations and

¹⁷ Ibid

¹⁸ Tomaz Lemski, 'Defence Standardization in Poland'.

¹⁹ NDHQ STANDING OPERATING PROCEDURES (SOPs) FOR INTERNATIONAL PROGRAMS (Canada, 2001).

numerous smaller realignments. As well, NATO has undergone its own reorganization efforts since 2001 and is vastly different looking organization now. In addition, higher direction would see Canadian Joint Doctrine be aligned accordingly, because right now Canadian Forces Joint Publication (CFJP) 1, *Canadian Military Doctrine*, says that when looking at interoperability with Allies the order should be NATO, followed by Canada, the US, UK, Australia, and New Zealand multilateral doctrine²⁰. CFJP A1, *Doctrine Development Manual*, lays out the order of priority as Canadian Forces Doctrine, US Doctrine, then NATO and finally other doctrine development agencies (i.e., Australia, Britain, Canada, and America)²¹.

The second thing national direction would provide is clarity on what Military Committee Standardization Board, working groups, panels, and teams to support. The four main Military Committee Standardization Boards (Joint, Maritime, Land and Air) have about 134 different boards, working groups, panels, and teams between them. Each of those individual groups, in pre COVID times, would meet at least once a year, and some met three times a year. That was just for normal meetings that managed a portfolio of STANAGs, on top of that a number of STANAGs would either be undergoing rewrite or development of new standards (process for both is similar) and you could be looking at attending two to three additional meetings. But participation in live meetings is not the only way to participate; Canadian subject matter experts can register for a NATO Standardization Office account and then they can join one or more of the 134 boards, working groups, panels, and teams. Each one of those organizations has an online forum where they post unclassified study drafts of standards under production, giving all thirty Allies the opportunity to review and comment on the standard underdevelopment. Overall, NATO manages about a thousand STANAGs, and without national direction elements of the

²⁰ CFJP1, Canadian Military Doctrine, 1st ed. (Canada, 2011).

²¹ CFJP A1, Doctrine Development Manual, 3rd ed. (Canada, 2013).

CAF/DND may be supporting meetings and development/rewrite of NATO STANAGs that do not align with our current national direction.

Participation in the ratification and implementation process would also benefit from strong national direction. Once a NATO standard has been developed, it enters a phase called ratification, where a minimum number of Allies must provide a positive response to the standard. In accordance with AAP-3(K) there are six possible responses: ratifying and implementing, ratifying and implementing - with reservations, ratifying, future implementation, ratifying, future implementation - with reservations, not ratifying, and not participating. The first four are considered positive responses and allow the STANAG to move from Ratification to Promulgation. NATO does not dictate how a country conducts the ratification process, just that the country provides a response to NATO on the country's decision. The default number of positive responses is 15, but the number can be set lower or higher as it is for capstone and keystone documents previously the requirement was all Allies had to provide a positive response, but that was changed in 2019 and the new requirement is three quarters of all Allies must provide a positive response without reservations²². Operational, Capstone and Keystone standards have a set timeline in which to provide a response; new doctrine has a 180 day and for revised doctrine a 120-day timeline for ratification is in place,²³ there is no timeline for standards that for not fall into the operational, capstone or keystone categories. With clear direction on which standards Canada will support, it would make participation in the development and ratification process smoother. A faster ratification response makes standardization and interoperability work more efficiently.

²² 'MILITARY COMMITTEE APPROVAL TO AMEND MC 0020/11, MC POLICY FOR MILITARY OPERATIONAL STANDARDISATION', 24 April 2019.

²³ AAP-47 Allied Joint Doctrine Development, C, 2019.

The second part of the NATO process is the actual implementation of the ratified standard. NATO states that there is a commitment to implement "Allies shall implement Allied standards in accordance with their ratification responses and agreed capability targets, in the most expeditious manner in response to Alliance needs.²⁴" This part is critical to successful standardization within NATO, for two reasons: first is because we said we would implement the standard and secondly other countries do look at the implementation data and base decisions on their level of interaction will be. So, Canada has decided to ratify a NATO standard, what exactly does that mean to us. Basically, it means that we need to incorporate the standard into our own doctrine, operating procedures, tactics, techniques and procedures (TTPs) or into our material standards – which may also impact how we conduct defence procurement. For example, if Canada said yes to ratification and implementation of a NATO standard on military airfield design, the expectation is that during the design, bidding and building process that standard would be incorporated. When an Allied Air Force came to use that airfield, they would not be surprised because it would look and operate in an equivalent manner as military airfields in their home country.

One of the issues facing Canada regarding implementation, is that we do not have any ability to confirm that a NATO STANAG has been implemented as the organizations responsible for the STANAG says it has been. There are no quality assurance teams reading doctrine, TTPs or material standards to confirm our intention to implement and we do not run exercises to test NATO STANAGs. Currently, Canada has a response to 980 STANAGs on the NATO Standardization Document Database²⁵. The breakdown of the 980 is: 864 indicate Canada will

²⁴ AAP-03 DIRECTIVE FOR THE PRODUCTION, MAINTENANCE AND MANAGEMENT OF NATO STANDARDIZATION DOCUMENTS, vol. K (NATO, 02/18).

²⁵ 'NSO NSDD', accessed 12 May 2022, https://nso.nato.int/protected/nsdd/main/standards.

ratify, five will not be ratified, 22 we will not participate in, and we have not provided responses to 89. To date we have only implemented 384²⁶ out of 864 STANAGs (about 45 percent), which could mean that we provided positive responses to STANAGs that allowed the document to move to be promulgated that we may not have intended to implement due to a lack equipment/personnel or other reasons. Alternatively, we could have indicated that Canada would ratify and implement in the future, but 480 STANAGs with that response would have to be examined as to why we ratified in the first place if we were waiting new equipment, additional personnel, or additional funding to implement.

Another issue with the ratification and implementation process is that - does the CAF/DND at large know what we are signing up to when we agree to ratify a NATO STANAG? In Germany, any STANAG being considered for ratification goes up three parallel chains – one is operational, or material, and concurrently their legal and comptroller chains²⁷. This is so that when the STANAG arrives at the individual responsible for signing the national response there are no surprise costs that were not budgeted for, no legal ramifications with ratifying the STANAG and shows that all channels have agreed to the ratification. In Canada, the person responsible for signing the national response is the CO of Canadian Joint Warfare Centre (formerly the Canadian Forces Warfare Centre)²⁸. Canada has no such requirement to crosswalk a STANAG with the equivalent staffs, or even with other Level 1 Commands.

An example of not knowing, or understanding, what we signed up for is the 2018 purchase of an Israeli designed ground-based radar system²⁹ for the Canadian Army. Since the

²⁶ Ibid

²⁷ 'Standardization Within the German Armed Forces'.

²⁸ CFJP1, Canadian Military Doctrine, 1st ed. (Canada, 2011).

²⁹ David Pugliese, 'New Canadian Forces Radar Worth More than \$200 Million Can't Be Linked in with NATO Networks', The National Post, 15 July 2018, <u>https://nationalpost.com/news/canada/new-canadian-forces-radar-worth-more-than-200-million-cant-be-linked-in-with-nato-networks</u>.

system is not produced by a NATO country, NATO will not allow the newly purchased system to be integrated into the NATO Air Defense network (something the Czech government was advised of when they were looking at purchasing the same equipment)³⁰ and Canada ratified STANAG 2618 – Allied Doctrine for Ground Based Air Defence, which specifically speaks to the need for interoperability amongst NATO Allies³¹. This purchase forces Canada and NATO to develop a work around, so that any data obtained by the Canadian system can be shared with all Allies. This requirement to find ways to share information because systems can speak to each other does hinder interoperability.

This essay presented a brief history of NATO and described what standardization is. It spoke about the importance of talking about standardization in the same manner that we speak about interoperability. We then explained the importance of having national direction so that CAF/DND members could better support the NATO standardization process by participating in standardization efforts that align with our national interests. At the same time, national direction would also align in which order Canada may default to foreign doctrine, this would in turn make Canada more interoperable with NATO. The essay then covered the importance of ratification and implementation, including some examples of standardization efforts going awry, including the need to verify implementation. By adopting the proposed steps, Canada could assume a more active role in the NATO standardization process and perhaps even take a leadership role, even if it was an informal role, for other countries to follow.

³⁰ Ibid

³¹ ATP-82 ALLIED DOCTRINE FOR GROUND-BASED AIR DEFENCE, A (NATO, 2018).

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