WILL WE SEE A MARITIME NORAD?

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All recent discussions of continental defence at sea are dominated by the concept of a “Maritime NORAD.” Indeed, the recent NORAD renewal contains measures for improving Canada-U.S. maritime security cooperation. Yet this paper will argue that however sound that idea of expanded cooperation may be – and I do find it compelling – discussion is hampered by two competing visions of what “Maritime NORAD” actually means. I also sense that the presence of these two different visions will complicate post-agreement efforts to have NORAD actually execute its newly added maritime function.

Very broadly Canada has interpreted the term “Maritime NORAD” in an institutional sense. We thus expect continental maritime security will be managed in a rules-based system where Canada enjoys a legal equality in access and decision-making. In the U.S. only one or two writers and the Bi-National Planning Group share this Canadian interpretation. The dominant U.S. “Maritime NORAD” vision has little to do with institutions. Rather, that interpretation focuses on adapting NORAD air defence tactics to maritime tasks to allow U.S. agencies to detect, track, identify, and, when necessary, interdict shipping well before that shipping arrives in their ports. The approach to achieving this is usually unilateral, and direct Canadian participation is never mentioned. Frequently NORAD is specifically identified as the last place where this new process will be monitored.
I will show how those differences came about, discuss the problems the two diverging visions raise, and then offer some solutions and recommendations for the future.

History

A cooperative approach to continental maritime security is not new. In fact the 1946 Canada-U.S. Basic Security Plan mandated U.S.-Canadian naval cooperation for defending the coasts and approaches to the continent.¹ Yet even then it was clear that the dominant continental security challenge was the Soviet manned bomber. When the USSR successfully exploded a nuclear device in 1952 few questioned the need for an elaborate system of detection, interception, and interdiction that could operate unencumbered by national boundaries. NORAD was the institutional response, and it involved permanent staffs and a precise system of sharing costs, responsibilities and command. It is commanded by an American with a Canadian deputy, and its battle watch directors, who can be either Canadian or American, have the authority and the demonstrated ability to reach the President of the U.S. and the Canadian Prime Minister within minutes whenever a threat develops that requires an armed response. Some forty-eight years later this arrangement remains operationally effective, popular with both publics, and resilient, adapting successfully to the end of the bomber threat, the rise of the ICBM, the World Trade Center attacks and disagreement over the extent to which it would embrace the ballistic missile defence (BMD) task.

¹ Eayrs, James, In Defence of Canada – Peacemaking and Deterrence, (Toronto: Univ. of Toronto Press, 1972) p 380-388; and Philippe Lagassé, “Northern command the Evolution of Canada-U.S. defence relations.” Canadian Military Journal, Spring, 2003, p. 15. The origins of the strategic requirement for Canada to maintain a task group on each coast is also found in the precursor’s of this document. See Eayrs p. 322.
During the Cold War the Soviet Navy never presented a threat sufficiently dire or close to home to spur continental naval cooperation to these heights. Both the U.S. and the Canadian navies concentrated on fighting that threat overseas, and their high levels of interoperability were directed towards the needs of that “away” game. Certainly, both navies developed a set of plans – the MAREASTOP and MARWESTOP series - for the defence of the Atlantic and Pacific approaches to North America, but they were rarely updated.\(^2\) As a result two very interoperable navies usually required several days of pre-exercise planning and negotiation to arrive at mutually agreeable communications, data link and coding protocols for any exercise off North America. Ocean surveillance information was more regularly sent back and forth using common data links, but the person receiving it rarely checked that material for quality or fused it with corresponding national data.\(^3\) Thus a common ocean picture existed in a purely technical sense, but it was only used with great caution.

This weak naval involvement in shared continental defence also reflected the United States’ readiness to constitutionally assign sole responsibility for its offshore waters to its large, effective, and well-armed Coast Guard. In Canada, the navy was increasingly directed to take on the more rigorous offshore security tasks. While initially resisted by the Navy, it did have the unintended benefit of forcing an early close collaboration between it, the Coast Guard, the RCMP Marine Divisions, Transport Canada, and Customs Canada. A basic unclassified interdepartmental intranet was created, resources pooled and surveillance data shared. Our offshore surveillance


\(^3\) This was my personal experience gained as Commander Canadian Fleet Pacific from Jan. 2001 to Sep. 2003.
effort benefited from feeds from all of them and three years ago it was possibly the best in the world in terms of a system that accurately plotted ship data out to 100 miles off the coast. Yet while this data was regularly sent to the U.S.N., I personally saw little evidence of it being used by them and received nothing back of like quality from their immediate offshore surveillance effort. The Deputy Commanders of both NORAD and U.S. NORTHCOM confirm that there was, indeed, no process for developing a shared maritime picture.\(^4\)

**Post 9/11**

After the 11 September 2001 terrorist attacks, this limited approach to continental maritime defence came under scrutiny. Indeed, a ship-delivered terrorist weapon of mass destruction (WMD) was viewed as one of the most dangerous of today’s threats with the Brookings Institution predicting one trillion dollars in damage if one was successfully deployed in a major city.\(^6\) A weak offshore surveillance effort set against the fact that over two hundred ships were entering U.S. ports daily made it likely that a ship carrying a WMD would have entered American waters undetected.\(^7\)

The fact that aerospace monitoring was considered of a significantly higher standard than that achieved at sea led Guy Thomas, a John Hopkins researcher, to suggest in late 2001 that the U.S. use the same procedures NORAD uses for

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\(^4\) This, again, is gained from my at-sea experience viewing and comparing the many international ocean surveillance products available to me.

\(^5\) Findley, Lieutenant-General, and Lieutenant General Inge, p. 11.


aerospace defence against shipping heading for North America. This would duplicate the flight plan and flight following procedures used by every aircraft entering North American airspace. The flight plan is the aircraft operator’s announcement of his intended destination, timing and route and must be filed before takeoff. This alerts the system. Flight following then confirms that aircraft follows his advertised route by forcing him to stick to his plan and then ensuring he does by making him transmit an electronic beacon signal that sends his position and unique aircraft identifier to the radar chain on the ground. Within NORAD, this allows the air controllers manning this system to quickly identify a potentially hostile contact on their radar screens as that aircraft would be the only one not showing a filed flight plan number or transmitting a beacon signal.

Applying this at sea sounds daunting, but his concept only required one to suspend a minor part of the traditional freedom of the high seas convention. Today most nations, and this includes Canada and the U.S, require 96-hour pre-notification messages from ships intending to enter their ports. This normally occurs 1000 miles from shore. Thomas’ only modification to this is to call it a “float plan” and require more precise vessel adherence to the planned route. The second component, flight following, or perhaps “float following,” would involve only a very modest technical challenge given the wide fitting of satellite communications (SATCOM) in ships. Most of these systems routinely poll a ship’s SATCOM transceiver, which responds by automatically giving the vessel’s position, heading and speed. Many vessels turn this feature off, yet major ocean sailing races mandate it be left on so the viewing public can see which boat is in

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the lead. It also allows the yacht in trouble to rapidly send a very precise distress call. A “maritime NORAD” would make it mandatory to have this polling feature left on from a point one thousand miles back from our shores. This corresponds with the start of the “float plan” that should also have been filed. Similar to traditional NORAD procedures, the controller at his display searches for the contact who has not filed a float plan or who has not activated his SATCOM polling feature.

As **figure 1** – the great circle routes to North America - shows, any U.S. effort to put such a system in place would benefit significantly from Canadian participation given that most European and Asian shipping to the United States transits through Canadian offshore areas. Further, much of the sea borne cargo destined for the U.S. is transhipped through Canadian ports. Indeed, the Commander of NORAD, General Eberhart, suggested both Canada and the U.S. consider allowing NORAD to expand into the maritime and land areas during an October 2002 interview with the *National Post*. This informal overture was repeated at the Permanent Joint Board of Defence discussions, but rejected by the Canadian officials out of concerns for national sovereignty. A year later, Canada partially modified this stand and agreed to form a “Bi-National Planning Group” (BPG) comprised of American and Canadian officers which would study expanding NORAD into those areas. This group was directed to render their report in time for the next NORAD renewal discussions scheduled for May 2006.

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9 See, for example, the Volvo Ocean Race Yacht Tracker at http://www.volvooceanrace.com/racedatacentre/positionmaps/index.aspx?item=3
This year that group’s report indeed endorsed the need to “improve cooperation and coordination among Canadian and U.S. counterparts” involved in developing maritime domain awareness. It pointedly did not use the terms “maritime NORAD” or “naval NORAD” and only broadly suggested this year’s NORAD agreement may involve “a potential expansion of its mandate into the maritime domain.” No details whatsoever of how this might occur are offered in the report. Instead the report makes it clear that the entire Canadian-U.S security relationship has been altered by major structural changes made in the wake of the September 11, 2001 attacks. These include the establishment of the two new military commands now responsible for continental defence - NORTHCOM in the U.S. with Canada Command as its broad equivalent. Both are now competitors with NORAD in providing continental defence services. Equally the two new civil organizations, the Department of Homeland Security (DHS) and the Canadian Public Safety and Emergency Preparedness Canada (PSEPC), now have a very strong voice in what were once traditional defence matters. The report then noted that coordination and information sharing amongst these agencies was needed, although it recognized “great progress” had been made by the U.S. Northern Command in establishing ties with other purely U.S. agencies. Canada Command was encouraged to catch up.

13 BPG p. l.
14 BPG p. 31
This introduces the central element in the BPG Final Report and the key to understanding the future of the Canada-U.S security relationship including such concepts as a “maritime NORAD.” Their report states:

In the aftermath of 9/11, the North American Aerospace Defense Command’s (NORAD) mission was refocused, and a Canada-United States Smart Border Agreement was signed within three months. In contrast to this initial cooperative bi-national response, each country has independently formed new and similar national defence and security organizations as part of their national strategies. It is imperative that these new organizations (and other existing ones) improve their coordination and communications with each other to reduce the seams and gaps between them.  

If one links that statement with the previous one dealing with NORTHCOM’s “great progress” only one conclusion is possible. The U.S has largely made all the needed organizational changes it feels are required to address the terrorist threat, and it did so entirely within U.S. structures. More specifically, their government did not stand still while Canada considered the sovereignty implications of cooperative maritime surveillance and the BPG conducted its three-year review. Rather, the United States government began establishing an ever-expanding web of detailed relationships that link NORTHCOM, DHS, the U.S. Navy, the U.S. Coastguard and at least eleven other American federal departments and agencies who have maritime responsibilities. These are codified in National Security Presidential Directive 41 (2004), the resulting 2005 National Maritime Security Policy, and supporting plans to achieve maritime domain awareness. There is also an “International Outreach and Coordination Strategy” to garner foreign support for the Maritime Strategy, but the only non-U.S.

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15 BPG p. I.
organization with a significant role is the International Maritime Organization.\textsuperscript{17} NORAD is never mentioned nor is there the slightest suggestion of a bi-national approach to maritime surveillance being considered.\textsuperscript{18} The U.S will, of course cooperate with all nations to achieve improved surveillance, but it makes clear no nation has a privileged role, let alone an equal stake or voice in the endeavour.

In addition, the “information sharing” regime within the Maritime Domain Awareness Plan makes it clear information will be as much controlled as shared. While that plan promises to “establish a network-centric, near-real time information grid” that can be shared with international agencies, other elements of this plan’s “share information” strategy do the opposite. These will involve measures that “restrict access,” tighten classified data “user controls,” and enhance the “special protection” of certain information. \textsuperscript{19} This reflects that fact that, while the U.S. will ultimately develop a network that it can share “at appropriate levels” with the international agencies, the real work and the real sharing will involve only U.S. participants:

The primary method for information sharing is the national maritime common operational picture (COP). The COP is a near-time, dynamically tailorable, network-centric virtual information grid shared by all U.S. Federal, state, and local agencies with maritime interests and responsibilities.\textsuperscript{20}

The evolution of the U.S. National Strategy for Maritime Security along these lines has produced a curious dialogue. Canadian academics, remembering the U.S.’ initial 2002 invitation, continued to discuss the potential for Canada participating as an

\textsuperscript{18} Indeed the OAS and APEC are mentioned and not NORAD. U.S Dept. of State, Appendix B.
equal within a “maritime NORAD” as a “logical next step.” The Canadian-American Strategic Review confidently described this as a “win-win” proposition two years later. In the U.S. this was no longer the official view. In March 2005, Terry Breese, the director of the Office of Canadian Affairs in the U.S Department of State, questioned whether NORAD was the best place for improving bilateral maritime surveillance stating that “It's not clear to me that this is necessarily the best way to go.” Admiral Keating, General Eberhardt’s successor as Commander NORAD and NORTHCOM, was more blunt: “what we are looking at is of a scope much larger than a maritime NORAD, in that we have areas in our area of responsibility that wouldn’t lend themselves to a bi-national agreement.” Before Congress, he has also stated “a maritime NORAD is a nice concept, but we think that it would be unnecessarily restrictive.” This reply was a direct response to Senator Warner (R-VA) questioning the potential for future cooperation with Canada immediately after its decision to not participate in the U.S. ballistic missile defence programme.

In all of this I need to point out that some elements within Canada also baulked at turning maritime responsibilities over to NORAD. In June 2005, General Hillier, the Chief of the Defence Staff, largely dismissed the need for a “maritime NORAD,” arguing

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instead for an undefined “linked system.”

This year, the new Defence Minister, Gordon O’Connor, took great pains to make clear NORAD’s future maritime role would involve “merely a transfer of information.” Further, the new Canada Command appeared far more interested in promoting better bilateral relations with the U.S. NORTHCOM than it does in maintaining the bi-national NORAD relationship.

Problems

One senses these Canadian officials’ low expectations for a NORAD solution to maritime surveillance and their readiness to embrace NORTHCOM reflect an acceptance of the inevitable. Essentially, Canada, having long delayed responding, now has to adapt to an American unilateral plan. While one can assign pique over Canada’s rejection of missile defence as one of the motivations behind the U.S. government’s change to a more unilateral posture, there are many others. Admiral Keating also cited the need to ultimately consider Mexico’s participation when he questioned whether NORAD should be used. This argument and the one of pique have received little analytical support. Rather, other political, operational and bureaucratic factors had the greatest influence on those U.S. officials’ unwillingness to endorse a “maritime NORAD.”


28 This is most evident in the papers and presentations accompanying mine in this journal by Vice Admiral Forcier, Commander, Canada Command and of Brad W. Gladman, an strategic analyst in the same command.

29 The BPG final report (p. 28) makes clear this approach has already led to sub-optimal ad hoc solutions to problems. This included sending a Canadian analyst in maritime intelligence to work within NORTHCOM HQ as a liaison officer to build a continental maritime surveillance picture. This, of course, nicely contrasts the difference between a bilateral NORTHCOM – CANADA COM relation and one based on a bi-national NORAD. In the former Canada is now represented by an analyst at the Major level while the latter has Canada being represented by a Lieutenant-General.

The political factors that influenced recent U.S resistance to a bi-national approach certainly must involve the Canadian 2002/3 rejection of their initial offer of naval cooperation for reasons of sovereignty. Dwight Mason, a very informed American observer of Canada-U.S. relations, characterized our concerns as "misplaced," and there is certainly no Canadian government document or utterance available that might counter that assessment and explain our precise sovereignty concerns.\textsuperscript{31} When this is followed by our 2005 decision to not participate in ballistic missile defence after we had made indications we might, doubts as to our own commitment to continental security were inevitable. This was very much a political issue as the U.S. saw the Liberal government utterly unwilling, in John Noble’s view, to show “leadership in the face of public opinion” allied with an equally feckless Conservative opposition.\textsuperscript{32} When all of this was tied to an enduring history of successive Canadian governments neglecting their own defence needs, the U.S. political calculus necessarily concluded a unilateral solution to their immediate defence needs was the safer option.

Operational considerations may have also influenced those officials. As noted, Admiral Keating found a NORAD construct “too restrictive” and this probably reflects the fact that parts of the U.S. National Strategy for Maritime Security are ill suited to NORAD decision-making processes. Paul McHale, the Assistant Secretary of Defence for Homeland Defence, made clear that strategy involves both a Maritime Domain Awareness portion that conducts surveillance and a Maritime Operational Threat Response Plan that interdicts threats found:

\textsuperscript{31} Indeed establishing the origins of the Canadian concerns for its sovereignty in this area is particularly difficult given the recent combined Liberal and Conservative support for NORAD taking over the maritime surveillance role. See Curry, Bill, “Liberal support expanding NORAD to coastal defence,” \textit{Globe and Mail}, 1 May 2006, A-6.

When we speak of a maritime NORAD, we are not talking about just a bilateral relationship with Canada modelled on the NORAD agreement we have in the air domain. We’re talking about defense in depth – the ability to detect at a distance on the high seas a weapon of mass destruction, the ability to track [in] real time such threat platforms, [and] the ability to interdict, board, and conduct render-safe operations in regard to weapons of mass destruction on the high seas.\textsuperscript{33}

The unilateral tone of that strategy signals that the interdiction portion of maritime defence will not involve seeking another nation’s agreement on the boarding of a threat vessel thousands of miles from North America.\textsuperscript{34}

A clean division between domain awareness and resulting action would, of course, allow Canada to participate fully in the maritime surveillance half of the functions. Within NORAD such a division would be nothing new. While Canada and the U.S. participate equally in the surveillance and interdiction decisions for air-breathing threats, U.S. Strategic Command and U.S. Northern Command handle the armed response portion of a NORAD-detected ICBM threat. Yet bureaucratic factors may have made the narrow ‘surveillance only’ option problematic as well.

The Bi-National Planning Group has already made clear that NORTHCOM has made massive strides in brokering agreement on maritime domain awareness between itself, Pacific Command, Joint Forces Command, Southern Command, the U.S. Coast Guard, and a host of other agencies. It took them three years of hard fought negotiations to agree on roles, responsibilities and national data-exchange protocols. Canada and NORAD were not part of this process - at our own insistence. For Canada to re-enter this process as an equal partner, even on paper, CANADACOM and PSEPC

and several other Canadian federal departments and agencies must also be integrated into NORAD’s data flows, and this has not yet begun. In fact, Canada has just barely achieved internal national agreement on roles and responsibilities and the various agencies have yet to agree on a common classified data exchange system. Given our initial resistance and our own slow internal progress, any U.S. official would be justified in asking why he must redo three years of hard work to suddenly include Canada.\footnote{When I questioned the BPG staff on this issue at the Centre for Military and Strategic Studies Conference on Canada-U.S. relations (4-5 May, 2006), one of its leaders, Captain Pamela McClune, U.S.N. suggested a further bureaucratic factor supporting the U.S. military’s resistance to the bi-national approach. Essentially, U.S. Northern Command naturally gravitated to a bilateral approach because it is the template used by the U.S. armed forces in every one of its other commands save EUCOM. This approach very much puts the U.S. command in the lead position as the U.S. commands normally dominate any security forum they care to join or create. Only NATO and NORAD agreements force those commands to deal with allies as nominal equals and these are very much the exception to the pattern of how one manages allies in their view.}

**Outcomes and Solutions**

Yet it appears that those who oppose NORAD role in maritime security must now get on with the task. Canada and the United States agreed on 28 April 2006 to renew the NORAD agreement indefinitely and to expand its responsibilities to include maritime surveillance. While details are scarce, this decision should be welcomed wholeheartedly. At the political level it signals that both national leaders remain committed to cooperative continental defence when they had a host of operational and bureaucratic incentives to go unilateral. In part this also reflects political confidence in a NORAD model that has proven uniquely capable of rapidly providing carefully assessed data to both nations’ leaders, has never provoked a sovereignty challenge, and has responded with great skill to every global shift and change. I am on less solid ground now, as progress has just begun, but the recent Canadian budget also demonstrates
Canada has started to address its defence shortcomings with actual spending instead of future promises.

I also sense the operational concerns raised may have been largely solved. Both nations will retain the at-sea interdiction function within their national purviews. Certainly, we may need little input to a U.S. decision to board a terrorist vessel off Yemen. I am also sure the U.S has little inclination to be involved whatsoever in the Canadian boarding of a Spanish fisherman at the Nose and Tail of the Grand Banks. Moreover, pooling national surveillance data and then managing and assessing that data in one bi-national operations centre was also the correct thing to do operationally. Our contribution here will not be token. Canada’s offshore picture had no equal out to 100 miles. The addition of our High Frequency Surface Wave Radar sites (see figure 2) will extend it a further 150 miles in an area critical to the U.S. achieving solid coverage of the great circle route to her ports. Finally, the Canadian and U.S navy have already achieved levels of operational interoperability that are unmatched suggesting the U.S. Navy may have significantly less challenge in the future cooperating with the Canadian Navy than other U.S civil agencies.36

The final challenge is bureaucratic, and it is an immense one. Those attempting to introduce a truly bi-national approach to maritime surveillance will find an unprepared Canadian side who needs to get its house in order and a U.S. side that is, if anything, over prepared from the point of view of having a maritime strategy in place that now

36 See Szabo and Walters, p. 19. The view of many senior U.S. and Canadian government participants at the 2005 IFPA conference was that “the amount of information (particularly intelligence) shared between Canada and the United States is extraordinary, and that, in many cases, the parallel agencies on either side of the border share more with each other than they do with other agencies in their own government.” The difficulty of sharing within government most often centers on the restrictions placed on passing law enforcement sensitive information (say from the coast guard) to the military and on them sharing national security information with the coast guard.
requires considerable painful overhaul. Yet as a very minimum the extremely restrictive data-sharing regime that underwrites the U.S maritime domain awareness plan must be redone to reflect a bi-national structure. If that component is not redone the unpleasant pattern identified by the Bi-National Planning Group will continue. Their investigation revealed a systemic problem in both states where:

Although national laws and policies permit the sharing of information, this direction is not *routinely* being followed at the mid-level management and analyst level.  

Midlevel bureaucrats withhold cooperation and data not out of ill intent or from a failure to follow clear political direction to cooperate. Rather they hold back because they are receiving conflicting data, because no new rule set was issued for this new bi-national endeavour, and because the safest route at the end of the day is to withhold information. The BPG correctly points out there is absolutely no current incentive to share information.

I sense that one can predict the success or failure of NORAD’s expansion by the extent to which both sides are able to agree on a shared rules and a shared data exchange system. Thankfully, their efforts can be guided by the example of NORAD’s forty-eight years of solid success in both areas. If, however, the U.S. chooses to not amend its very restrictive data-sharing regime, the NORAD role in maritime surveillance will be token and, as a result, ineffective. If this occurs many will undoubtedly criticize the U.S. penchant for the unilateral. The facts, however, demonstrate that Canada’s unexplained and unsubstantiated concerns over its sovereignty largely forced the U.S. to this posture.

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37 BPG p. C-7
Figure 1 – Great circle routes

Figure 2 – High Frequency Surface Wave Radar Sites