



CANADIAN NAVAL REVIEW

VOLUME 10, NUMBER 2 (2014)

**Beyond Counter-Terrorism: The RCN and
Canadian Interests in the Indian Ocean**

**Canadian Security and Safety in the
Arctic: Probable Challenges, Practical
Responsibilities**

**Mitigating Children's Involvement in
Maritime Piracy**

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CANADIAN NAVAL REVIEW

VOLUME 10, NUMBER 2 (2014)

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Credit: Cpl Michael Bastien, MARPAC
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HMCS *Regina* prepares to pass under the Al Salam Peace Bridge in the Suez Canal on 13 May 2014.

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Editorial

The Gathering Storm

Things fall apart; the centre cannot hold;
Mere anarchy is loosed upon the world,
The blood-dimmed tide is loosed, and everywhere
The ceremony of innocence is drowned;
The best lack all conviction, while the worst
Are full of passionate intensity.

These words of prophecy and despair by W.B. Yeats at the end of World War I seem too easily reflective of our present global context.

All around us, the world seems in free fall from any state of rational equilibrium between spheres of influence, between more intense religious extremes, between global powers. While state-to-state combat is at an all-time low ebb, the battles between state proxies, terrorist networks, emergent regional powers in places as diverse as Ukraine, the Middle East, the South China Sea, Sudan, Rwanda-Congo continue unabated. Hundreds of thousands of civilians are at risk, sometimes because of geographic happenstance, sometimes because of explicit terrorist intent.

The relative stability of the old Cold War was, in some ways, facilitated by rational reflection on both sides on the risk of thermal nuclear destruction. That stability has been traded for a new world in which the much-heralded 'pax Americana' and 'new world order' have been replaced by a diffused and robust risk of intense, localized violence. This comes at a time when the major Western allies of Canada are radically cutting back on deep strategic capacity for naval, air, Special Force and infantry assets, limiting the very diversity of both their deployable potential and the range of possible missions spanning the humanitarian, peace-making, peace-keeping, stabilizing, patrol and combat initiatives.

This relative contraction, led by the United States, the United Kingdom, France, Germany and others, is not matched by similarly radical cuts for Russia, China, North Korea or Iran. Nor is it, in any way, mirrored by reductions in support for terrorist proxies such as Hezbollah, Hamas, the Islamic State of Iraq and Syria (ISIS) or Russian-supported armed separatists in Ukraine. Insurgent groups are more robustly funded than ever.

Genuine democracies become war-weary, intervention-averse and seek to reduce military exposure and risk. Authoritarian players, less driven by the legitimate concerns and peaceful aspirations of their populations continue their particular 'march of folly' unabated.

None of this is without impact on the men and women of

the Royal Canadian Navy. While not, in the last quarter century, one of the world's eight most significant navies (the United States, UK, France, Russia, China, India, Japan, South Korea), the RCN along with Germany, Australia and Brazil have usually been counted as valuable and stabilizing maritime powers with a level of training, a diversity of platforms and a sense of advanced technical competence and professionalism which allies trust and opponents fear.



Amphibious assault ships of Commander, Task Force 51 (CTF-51) come together in a new unprecedented formation during operations in the North Arabian Gulf in April 2013.

*Credit: Photographer's Mate 2nd Class
Larry S. Carlson*

A mix of factors has increased the deployability challenges faced by Canada's navy. These factors include the recent 12-year bias in terms of investment in tactical and heavy air lift and land force armoured and mechanized assets vital to the UN-sanctioned NATO effort in Afghanistan, a reduction of procurement dollars, the 2008/2009 global credit crisis which diverted dollars to economic and employment stabilization, and some procurement cycles that were slow, badly calibrated and time-wasting.

As this is written, despite the 'can do' professionalism and continued deployability on both coasts and worldwide of Canadian naval personnel and platforms, a full 20 of Canada's 36 platforms are either relegated to maintenance and repairs or modernization, leaving 16 ships of mixed class at the disposal of the Commander of the RCN. And of these 16, five are going through post-modernization acceptance trials.

These 16 ships and their well-trained crews are deployed in sovereignty coastal patrols, domestic security, working with the RCMP, Canadian Border Services Agency (CBSA) and Transport Canada, as well as many reserve and regular force naval personnel supporting aid to the civil power, on fishing patrols and illegal drug and human smuggling. Recent humanitarian efforts in Haiti, counter-terrorism efforts in the Arabian Sea, deployment



Credit: Cpl Robert LeBlanc, Formation Imaging Services, Halifax, NS

While patrolling off the coast of Somalia in the Gulf of Aden, HMCS *Charlottetown* came across stranded Somali fishermen who ran out of fuel, water and food. After rendering them assistance, the fishermen were on their way.

in support of NATO and against piracy, drug interdiction work as far afield as the west coast of Africa and the Caribbean illustrate well the ‘force for good’ role the navy continues to execute in an exemplary way. Active and robust RCN participation in allied training and force generation exercises in the Atlantic, Pacific and beyond with partner naval forces speaks eloquently to the continued global reach of the RCN.

At the end of June 2014, total regular force complement for the Canadian Navy was just over 9,400 sailors, and a Reserve Force of just over 2,300. Of these, almost 2,800 were deployed on continental missions and just under 2,600 on expeditionary work worldwide. This compelling ratio of active deployment between June 2011 and July 2014, speaks volumes about the engagement, professionalism and will to serve that is the RCN at all levels of command and through the ranks.

In 1902, in his second annual address to Congress, President Theodore Roosevelt made his famous reference to the naval role in world affairs. According to him, “[a] good navy is not a provocation to war. It is the surest guarantee of peace.”

The navy is a deep and multifaceted reflection of Canada’s modern technical and strategic capacity as a country and people. Its self-contained presence on many fronts symbolizes Canada’s will to promote civility and peace by bolstering a global awareness of the destructiveness of war and the need to choose restraint and reserve over the use of force wherever possible. Diplomatic maritime presence around the world, replete with highly trained, technically adept and strategically capable ships and complement is a vital extension of Canada’s values and principles.

We live in a world with few guarantees and many irrational threats to peaceful values, interests and aspirations. A multifaceted Canadian naval capacity based on a policy goal of 60 platforms on and beneath the sea, with a diplomatic sovereignty, humanitarian, intelligence-gathering and calibrated intervention scope has never mattered more.

Attempting to manage on a 30 platform basis with long coastlines on three oceans and more sea-based trade routes than almost any other country is not only unrealistic – it is also unsustainable. Canada and its navy have never initiated conflict alone, without allies or principles being attacked first. The presence of the navy in different oceans and theatres of commerce and ports of call sends a powerful message about Canada’s values, engagement and commitment.

This present period of modernization and procurement transition will be a turning point for Canada’s maritime fortunes. “The centre holding” for Canada’s world view requires a robust and stabilizing Canadian naval presence worldwide. Anything less is the kind of retrenchment and abdication unbecoming any government of Canada or generation of Canadians. 🇨🇦

Hugh Segal, CM, Master of Massey College, University of Toronto, is a former Chair of the Senate Committee on Foreign Affairs and the Special Committee on Anti-Terrorism. He is a Senior Fellow of the Canadian Defence and Foreign Affairs Institute Calgary, Chairs the Atlantic Council of Canada and is the Honorary Chair of the Navy League of Canada.



Credit: Rayzlen/Wikimedia Commons

HMCS *Saskatoon* near Esquimalt, British Columbia, and a CH-149 Cormorant helicopter that is practicing personnel transfers in March 2007. These Maritime Coastal Defence Vessels are crewed mainly by reservists.

Winner of the 2014 CNMT/Oland Essay Competition

Beyond Counter-Terrorism: The RCN and Canadian Interests in the Indian Ocean

Lieutenant (N) Jonathan Douglas

In 2013, HMCS *Toronto* seized more than eight tonnes of heroin and hashish being smuggled on vessels sailing in the western Indian Ocean. As these narcotics were likely being trafficked by criminal organizations with links to terrorist groups, their destruction by the sailors of the Royal Canadian Navy (RCN) was hailed by the government of Canada as a significant blow to sources of funding for terrorists, and a boon to Canadian security. Although photos of heavily armed sailors boarding these vessels raised the RCN's profile in the media, there was no wider discussion of why the RCN was maintaining a warship on station in the Indian Ocean.

It is tempting to view Indian Ocean operations as trivial for the RCN in a time of reduced defence budgets and fleet renewal. When compared with Chinese economic and military growth, withdrawal from Afghanistan, and allies nervous about Russian intentions, the strategic importance of the Indian Ocean appears to wane. Yet this warm ocean expanse is the linchpin connecting Atlantic and Pacific economic engines with the energy of the Middle East and its stability has been threatened by piracy and terrorism. Participating in a multinational effort that defuses these threats to global trade and security is in Canada's national interest.

There is more at stake for Canada in the Indian Ocean than combating terrorism and suppressing piracy. Although these 'sharp-end' applications of naval power generate the most public attention – and remain absolutely vital to Canadian security – there are other intangible benefits to the presence of Canadian warships in a maritime region connected by long coastlines, monsoon winds and thriving ports. The consistent exercise of Canadian naval power in the Indian Ocean buttresses relationships with other states in the region, which protects Canada's economic interests in the Middle East and Africa. The RCN could also play a role to moderate the interaction of navies from great and emerging powers, particularly as the economic and strategic importance of the Indian Ocean grows over the next few decades.

An Expanding Footprint in the Indian Ocean

For more than two decades, the RCN has maintained a steady presence in the Indian Ocean. The initial naval



Lieutenant (N) Greg Walker, Combat Systems Engineering Officer aboard HMCS Toronto, stands with seized narcotics primed for destruction in the Indian Ocean during Operation Artemis on 24 May 2013.

response to Iraq's invasion of Kuwait in 1990 was followed by warships enforcing sanctions against Iraq in the 1990s. The RCN also interdicted terrorists fleeing Afghanistan after 9/11 and responded to the threat of Somali piracy in the late 2000s. An entire generation of sailors has become intimately familiar with the seas of a region they simply call 'the Gulf.' The shifting dynamics of the coalition counter-terrorism mission have greatly expanded the RCN's operating footprint beyond the Arabian Sea and out into the vast reaches of the western Indian Ocean.

From 2012 to 2014, HMC Ships *Regina* and *Toronto* successfully interdicted heroin shipments on the maritime route from Pakistan to East Africa, a route that has been growing in significance for opiate traffickers since 2009.¹

These seizures scored a blow against criminal organizations which undoubtedly funnel proceeds from narcotics trafficking back to terrorist organizations in Afghanistan and the wider Middle East. But it also represented a shift in the RCN's counter-terrorism employment by the multinational Combined Task Force (CTF) 150, from guarding trade chokepoints against potential maritime attacks to targeting the resource flows of criminal and terrorist organizations themselves.

There has not been a serious maritime terrorist attack in the Indian Ocean region since 2002,² yet the threat is still very real. The 'accidental' sinking of a Cambodian freighter in the Mediterranean by a Hezbollah-fired anti-ship missile – they were apparently aiming for an Israeli frigate – foreshadows the havoc a Somalia- or Yemen-based terrorist group could sow against shipping in the Gulf of Aden if it acquired similar missiles. Protecting vital chokepoints such as the Bab al-Mandeb and the Strait of Hormuz from terrorist attack remains a key CTF 150 responsibility. But in the absence of intelligence warnings of an imminent threat to shipping, RCN warships have been occupied with observing and interdicting supply lines supporting terrorist organizations in the southern Somali basin, and reinforcing the security of Canadian economic interests in the region.

the RCN's Diplomatic Role in the Indian Ocean

In February 2013, *Toronto* tied up alongside Abu Dhabi, the capital of the United Arab Emirates (UAE). Abu Dhabi was host to IDEX, the largest defence industry

exhibition in the Middle East and Africa. *Toronto* played host to Emirati dignitaries and representatives of the roughly 30 Canadian defence firms attending IDEX, providing a forum for networking against the backdrop of a floating symbol of Canadian naval power. The Public Safety Minister at the time, Vic Toews, attended to represent the government of Canada. His trip to the UAE was part of a quiet campaign to re-establish cordial ties with the Emirates after a three-year row. A little more than a month later, Foreign Affairs Minister John Baird sat down with UAE Foreign Minister Sheik Abdullah bin Zayed Al Nahyan in an Abu Dhabi Tim Hortons and declared an end to the spat – a major rapprochement with what Baird called "a like-minded ally" in the Middle East.³

It would be foolish to claim that *Toronto's* visit to Abu Dhabi broke the ice between Canada and the UAE – Baird later credited his personal friendship with his Emirati counterpart – but the warship's presence played a part in the government's campaign. *Toronto's* support to Canadians at IDEX highlights the often under-rated and under-appreciated diplomatic role that the RCN plays overseas. This role is doubly important in a region where Canada has few tangible assets to display its national power, certainly no forts or permanent bases, no aircraft carriers and not even significant aid projects. No legion of Canadian tourists invades East African beaches like they do in the Caribbean. But the arrival of a Canadian warship in a Middle Eastern or African port reinforces Canada's commitment to maintaining maritime security in a volatile region, and provides an ideal platform for Canadian Embassies and High Commissions to highlight



A port bow view of the Canadian operational support ship HMCS *Protecteur* (AOR-509), underway in support of *Operation Desert Storm*, 27 February 1991.

Credit: Journalist First Class / Joe Gawlowicz, USN



Credit: Cpl Michael Bastien, MARPAC Imaging Services

Canada's High Commissioner to Singapore, Heather A. Grant, gives a speech to distinguished guests during a cocktail party hosted on the flight deck of HMCS *Regina* in Singapore on 9 February 2014.

Canadian technology and deepen their relationships with local governments, industries and civil society groups.

This diplomatic role of the RCN has assumed even more importance since the reorganized Department of Foreign Affairs, Trade and Development (DFATD) released the Global Markets Action Plan in November 2013. The plan pledges that “all diplomatic assets of the Government of Canada will be marshalled on behalf of the private sector in order to achieve ... stated objectives within key foreign markets.”⁴ While RCN ships are not strictly diplomatic assets – that is, they do not fall under the direction of DFATD – they regularly visit and host the activities of DFATD staff located in many of the countries listed as key foreign markets, including the UAE. In fact, one-third of the 19 countries identified as key foreign markets in the Middle East and Africa have Indian Ocean coastlines and ports. *Toronto* visited almost all of them during her year-long deployment to *Operation Artemis*. Each engagement combined a mix of ‘defence diplomacy’ – face-to-face staff talks with key military leaders, and capacity-building training with local naval forces – and networking activities supporting DFATD-led ‘economic diplomacy,’ which is the primary objective of the Global Markets Action Plan.

Protecting Canadian Economic Interests in East Africa

An increasingly important arena for Canadian economic diplomacy is East Africa where Canadian economic interests in the mining and infrastructure sectors are substantial and growing. A December 2013 report by Natural Resources Canada assessed the value of Canadian mining assets in Africa at \$22.3 billion – more than the value of Canadian mining assets in Europe and Asia combined. Furthermore, just under half of that value (\$10 billion) was concentrated in East Africa with assets

in Tanzania (\$2.4B), Madagascar (\$3.6B) and Zambia (\$3.4B) accounting for an overwhelming 98% of this figure.⁵ Unsurprisingly, these three countries are listed as key foreign markets in the Global Markets Action Plan. Two of them have Indian Ocean coastlines, and land-locked Zambia depends on the port of Dar es Salaam in Tanzania to export its mineral wealth. This means that the unhindered shipment of Canadian-mined minerals, as well as the bottom line of Canadian business, depends on maritime security in the East African littoral regions and the Indian Ocean.

This is where the RCN plays a critical role in support of Canadian economic interests, beyond supporting DFATD economic diplomacy in Tanzania and Madagascar. The mid-Indian Ocean east of Tanzania and Kenya is not immune to piracy. Ships in the East African littoral regions have also been subjected to acts of piracy, ranging from petty theft to armed attacks. The overwhelming majority of attacks on underway shipping south of the Somali coast between 1994 and 2010 occurred in the approaches to Dar es Salaam.⁶ In 2012, a tanker was approached by pirate skiffs just seven nautical miles from Dar itself, well within Tanzanian territorial waters.⁷ In November 2013, two tankers transiting halfway between Tanzania and Seychelles were fired upon by Somali pirates, and in both incidents the pirates were only driven away after a gun battle with embarked security teams.⁸ The threat of Somali-based piracy extends as far south as Madagascar and the approaches to Mozambique. What makes piracy a particular threat in these waters is the relative absence of anti-piracy patrols, which NATO and European Union (EU) naval forces have concentrated in the Gulf of Aden to protect the vital shipping route to and from Suez.

Although Tanzania and Kenya have the region's strongest navies, these forces are still better suited to littoral and



HMCS *Toronto* stands guard during a narcotics seizure in the Indian Ocean on 29 March 2013 during *Operation Artemis*.

offshore operations rather than extended anti-piracy patrols. In fact, the vacuum of open-ocean security has spawned a growing market for private maritime security forces, such as the purpose-built 'fast support intervention' vessels that the Mauritius-based company Specialized Vessel Services Ltd. offers to protect firms in the regional oil and gas industry. The presence of RCN warships in these seas, even while tasked primarily with counter-terrorism duties, sends the signal that Canada is interested in strengthening the maritime security that underpins the business of Canadian firms in East Africa.

In this light, RCN capacity-building activities with local navies and maritime security forces become vitally important to protecting Canadian shipping and economic interests. A good example is the joint training that RCN and Tanzanian Navy boarding parties conducted during

Toronto's visit to Dar es Salaam in March 2013. This minor contribution paid dividends in February 2014 when Tanzanian authorities seized 201 kilograms of heroin (worth approximately \$5.5 million) from a dhow sailing within Tanzanian territorial waters.⁹ That Tanzanian naval forces participated in this seizure illustrates their confidence and growing capability to extend maritime security within their littoral waters.

As local naval and maritime security forces improve their operating competence, in part thanks to capacity-building by the RCN and other navies, their ability to protect shipping within East African littoral regions from piracy and harassment will enhance Canadian investor confidence in this region. This is particularly important as DFATD is encouraging Canadian firms to bid on projects aimed at unlocking huge oil and gas reserves discovered off the coast of Tanzania and Mozambique, a potentially lucrative venture for the well-developed Canadian infrastructure and transportation sector.

Moderating the Interaction of Great and Emerging Powers

There are many direct Canadian security and economic interests that the RCN can protect by remaining engaged in the Indian Ocean but the most important Canadian interest in the region is perhaps the most intangible of all. The Indian Ocean has emerged as the primary locus of interests between a great power, the United States, and two emerging powers, India and China. The United States continues to protect its national interest in ensuring the free flow of energy from the Middle East, first articulated by the Carter Doctrine in 1980, and its military forces act as a deterrent to Iranian belligerency in the region. China's



HMCS *Protecteur* (middle) conducts a liquid replenishment at sea with USS *Lake Erie* and USS *Cape St. George* in support of Exercise KOA KAI off the coast of Hawaii on 27 January 2014.



Leading Seamen Joseph Pittet and Jeffrey Dunlop conduct maintenance on the close-in weapons system of HMCS *Regina* in the Indian Ocean during *Operation Artemis*, 22 February 2014.

massive thirst for Gulf oil and gas significantly increased Indian Ocean tanker traffic throughout the 2000s, and Beijing remains acutely aware of its long sea lines of communication from the Strait of Hormuz and Africa, across the Indian Ocean to the Pacific. Thus far, India has been content to act as a free-rider on the oceanic security provided by US carrier battle groups. However, a growing political desire to establish an Indian Monroe Doctrine over the ocean that shares its name is driving the Indian Navy's growth and modernization.¹⁰ So far the three nuclear-weapon states have cooperated on issues such as counter-piracy and counter-proliferation, but India and China are eyeing each other warily. The United States cannot downscale its considerable military resources in the region without leaving behind a security vacuum that will escalate military competition, and perhaps embolden Iran.

Meanwhile, a range of pipeline and port infrastructure projects promises to bring further energy supplies from Central Asia to the Arabian Sea. The convenience of new transshipment ports like Salahah in Oman and Gwadar in Pakistan, as well as new pipelines from the Gulf intended to bypass the volatile Strait of Hormuz, will further increase shipping traffic through the region. Global economic recovery depends on the free flow of

these vessels, even though they transit some of the most dangerous waters in the world. Somali piracy is merely suppressed, not eliminated. The threat of attack and hijacking, and thus the impetus for emerging powers to dispatch naval patrols to the region, will remain as long as a failed state with hundreds of miles of porous coastline borders the western Indian Ocean. If Yemen succumbs to its internal insurgencies, two failed states with active terrorist groups – Al-Qaeda in the Arabian Peninsula and Al-Shabab – will face each other across the Gulf of Aden. This will provide motivation for the United States and other emerging powers to fill the resulting maritime security vacuum with a naval presence.

Some commentators, such as Robert D. Kaplan, view the collective naval effort to suppress piracy and terrorism as a positive way for the three powers to build constructive relationships in the Indian Ocean. "As China and India rise," he wrote in his 2010 book *Monsoon*, "the scourge of piracy will provide opportunities for cooperation among these new powers in the region."¹¹ But operating in close proximity outside of formal structures with routine communications can also exacerbate existing tensions, especially if nationalist feelings in home countries are running high. The Indian, Chinese, Russian and Japanese fleets that avoid mutual interference today to protect sea lanes could easily be stalking each other tomorrow in response to a crisis in another part of the world.

The presence of nuclear weapons in the Indian Ocean enhances this risk. India is actively building a submarine-based nuclear deterrent that will presumably hide from Pakistani ships and aircraft in the expanses of the Indian Ocean, underneath the passage of energy and mercantile shipping that drives the world economy. Pakistan is an established partner of CTF 150 and similar counter-piracy task forces. India, with its larger navy, is not. In the absence of formal mechanisms for real-time naval communication, how would a miscommunication or miscalculation between these two mistrustful neighbours play out within the Gulf of Aden or Arabian Sea, which are already crowded with warships hunting pirates and merchant ships sailing together to avoid them? What if Chinese submarines and counter-piracy task forces tried to defend their outnumbered Pakistani friends? The risk to coalition vessels and commercial shipping – not to mention civilian populations in a nuclear crisis – would be huge.

Here lies the most important Canadian national interest in the Indian Ocean – supporting structures of multilateral naval cooperation that enhance the Indian Ocean as a peaceful sphere between great and emerging powers, while also protecting the increased flow of shipping



Credit: Corporal Chris Ringius, Formation Imaging Services Halifax

HMCS *Toronto* departs Halifax to the Arabian Sea Region as part of **Operation Artemis**, Canada's contribution to Combined Task Force 150 (CTF-150).

upon which the Canadian and world economies depend. Because the Indian Ocean region is an inherently maritime zone, Canada can only effectively promote this interest by employing the RCN in its now-familiar 'station' in the Indian Ocean. Employment does not always mean sending a warship. Commanding CTF 150 or other multinational forces, as the RCN has done in the past, is certainly an option. So is sending non-warship assets, such as clearance divers and experienced naval boarding party personnel, on capacity-building missions throughout the region. But the continuing presence of naval ships in the Indian Ocean remains the best means for the RCN to maintain its interoperability with allied navies, influence the interaction of emerging power navies, and provide security and diplomatic support to growing Canadian economic interests in Africa and the Middle East.

Conclusion

Counter-terrorism remains a vital mission for the RCN in the Indian Ocean. Well-publicized seizures of narcotics by *Toronto* and *Regina* in 2013 and 2014 confirm that terrorist and criminal groups continue to use the seas to achieve their objectives. Yet it is important to recognize that the RCN reinforces other enduring and emerging Canadian interests in this potentially contested region. It does so through warship visits to support DFATD's economic diplomacy, capacity-building with local militaries to enhance the maritime security of Canadian commerce, and presence operations with allies and security partners to moderate the interaction of great and emerging powers at the crossroads of their own energy and security interests. After two decades of sailing on the Indian Ocean

station, the RCN will likely continue to see one of its naval roles pointing east, well into the middle of this century. 🇨🇦

Notes

1. United Nations Office on Drugs and Crime, *World Drug Report 2013* (New York: United Nations, May 2014), p. 33.
2. The Abdullah Azzam Brigades detonated an explosives-laden boat against a Japanese tanker in the Strait of Hormuz in 2010 but the damage was not extensive. See Robert F. Worth, "Tanker Damage Caused by Attack, Inquiry Finds," & *e New York Times*, 6 August 2010.
3. Campbell Clark, "In UAE, Baird Turns the Page on 'Challenging Period' of Diplomatic Spats," & *e Globe and Mail*, 2 April 2013.
4. Foreign Affairs, Trade and Development Canada, "Global Markets Action Plan: The Blueprint for Creating Jobs and Opportunities for Canadians through Trade," 2013, p. 11.
5. Natural Resources Canada, "Canadian Mining Assets Information Bulletin, December 2013," February 2014.
6. John Martin, "Maritime Piracy in the Indian Ocean: A Statistical Analysis of Reported Incidents," in John Garofano and Andrea J. Dew (eds), *Deep Currents and Rising Tides* (Washington, DC: Georgetown University Press, 2013), pp. 34-35.
7. International Chamber of Commerce (ICC), International Maritime Bureau, *Piracy and Armed Robbery Against Ships: Report for the Period 1 January-31 December 2012* (London: ICC International Maritime Bureau, January 2013), p. 80.
8. ICC International Maritime Bureau, *Piracy and Armed Robbery Against Ships: Report for the Period 1 January-31 December 2013* (London: ICC International Maritime Bureau, January 2014), p. 66.
9. Katere Mbashiru, "Heroin Haul Worth \$5.5 Million," & *e East African*, 5 February 2014.
10. James R. Holmes and Toshi Yoshihara, "India's 'Monroe Doctrine' and the Gulf," in Jeffrey R. Macris and Saul Kelly (eds), *Imperial Crossroads: & e Great Powers and the Persian Gulf* (Annapolis: Naval Institute Press, 2012), pp. 147-166.
11. Robert D. Kaplan, *Monsoon: & e Indian Ocean and the Future of American Power* (New York: Random House, 2010), p. 306.

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Canadian Security and Safety in the Arctic: Probable Challenges, Practical Responsibilities

P. Whitney Lackenbauer



Credit: Author

Canadian military might showcased in the Arctic. False option?

Climate change. Newly accessible resources. New maritime routes. Unresolved boundary disputes. Announcements of new investments in military capabilities to ‘defend’ sovereignty. No wonder the Arctic has emerged as a topic of tremendous hype (and deep-seated misperceptions) over the past decade, spawning persistent debates about whether the region’s future is likely to follow a cooperative trend or spiral into unbridled competition and conflict. Commentators differ in their assessments of the probability and/or timing of developments, as well as general governance and geopolitical trends. Some (including myself) contend that the Arctic regime is solidly rooted in cooperation, and others (with Dr. Rob Huebert at the University of Calgary at the forefront) anticipate or discern heightened competition and conflict.

These frameworks are significant in shaping expectations for the government of Canada and for the Canadian Armed Forces (CAF) more specifically. If one expects, as Huebert does, that the region is on the precipice of conflict,

‘constabulary capabilities’ are insufficient. (What exactly he wants Canada to develop to match the ‘war-fighting capabilities’ of potential Arctic rivals, particularly Russia, is unclear.) On the other hand, official military statements – anticipating no conventional military threats to the region but an increase in security and safety challenges – point to the need for capabilities suited to a supporting role in a whole-of-government framework.

Rather than rushing a spate of new investments in combat capabilities to meet an impending security ‘crisis,’ as Huebert would have us believe is necessary, official frameworks provide the CAF with appropriate and responsible guidance to support other government departments in addressing security concerns and responding to non-military Arctic emergencies. Although several expensive capital programs remain in the project definition or design phases, or have been scaled back (in the case of the Nanisivik refueling facility), this does not mean that Canada faces a critical, combat-capability deficit that

leaves it vulnerable in an increasingly hostile Arctic world. Instead, delivering on promised investments aligned to Canada's Northern Strategy before rashly ramping up to fight a fantastical Arctic combatant, conjured to the scene because of preconceived Cold War mentalities and international events unrelated to Arctic disputes, is a prudent and rational course.

Assessing Risks

It is important for commentators and analysts to contemplate worst-case scenarios to identify potential risks and vulnerabilities. However, an excessive fixation on remote *potentialities* and their misidentification as *probabilities* can lead to misallocated resources (intellectual and material), unwarranted suspicion and paranoia, and messaging that can lead to a security dilemma.

Despite the considerable ink spilled on boundary disputes and uncertainty surrounding the delineation of extended continental shelves in the Arctic, official statements by all of the Arctic states are quick to dispel the myth that these issues have strong defence components. In Canada's case, disputes with Denmark over Hans Island and with the United States over the Beaufort Sea are longstanding and well-managed. There is no risk of armed conflict between Canada and these close allies. Similarly, managing the longstanding disagreement with the United States over the status of the waters of the Northwest Passage has consequences for Canadian defence and security in terms of transit rights and regulatory enforcement but it holds no serious risk of precipitating a military conflict.

Although political sabre-rattling rhetoric with Russia over the Lomonosov Ridge and the North Pole generates punchy headlines in both countries, it is simplistic and erroneous to draw parallels between Russian aggression in the Ukraine and the establishment of the limits of its sovereign rights in the Arctic. The five Arctic coastal states, including Russia, emphasized their shared interest in maintaining a peaceful, stable context for development in the Ilulissat Declaration in May 2008. Despite the hostile diplomatic atmosphere created by the Russian annexation of Crimea, there is no indication that any Arctic state intends to move away from the existing international framework when it comes to asserting its sovereign rights or substantiating its legal claims. A 2010 maritime delimitation agreement resolving a dispute between Norway and Russia in the Barents Sea provides a precedent of how a longstanding dispute can amicably be put to rest when political interests demand a resolution.

The opportunities and challenges associated with Arctic resources also fire up imaginations and frame sensational narratives of unbridled competition for rights and territory that have little grounding in reality. Despite the wealth of Arctic resources (an image fueled by the US Geological Survey's circumpolar oil and gas assessment in 2008), depictions of a race among circumpolar states, arming in preparation for a resource-fueled conflict, is fundamentally misinformed. Exploration activities are not occurring in a legal vacuum where states might perceive a need to compete for control and access. For



Credit: Joint Task Force (North) photo

à e 'whole-of-government' approach in practice off Pond Inlet, 2006.

example, international oil majors have spent billions on leases and seismic drilling in the Beaufort and Chukchi Seas – all within established national jurisdictions.

Each Arctic coastal state has expressed interest in encouraging responsible resource development within its jurisdiction, so each has a vested interest in promoting and working within existing international legal frameworks. Any move to claim resources outside of limits prescribed by the UN Convention on the Law of the Sea (1982) would create instability and thus impede investment and slow the pace of development. The best way to defend the Arctic in this context is to clarify environmental regulations, drilling requirements, corporate liability laws, the benefits to Indigenous peoples and the meaning of sustainable development in a non-renewable resource context before offshore resource development proceeds at a heightened tempo and scale.

Another persistent debate relates to Arctic shipping, particularly the opening of the Northwest Passage, its

new challenges to Canadian control over the Northwest Passage – particularly in the defence domain. This situation is unlikely to change in the short to medium term. The Arctic Council's landmark Arctic Marine Shipping Assessment (AMSA) in 2009 projected that the "Northwest Passage is not expected to become a viable trans-Arctic route through 2020 due to seasonality, ice conditions, a complex archipelago, draft restrictions, lack of adequate charts, insurance limitations and other costs, which diminish the likelihood of regularly scheduled services." While community resupply and tourism have increased over the past decade, high seasonable variability and unpredictability continue to inhibit maritime operations and make the prospect of widespread transit shipping through the passage remote. In Canadian Arctic waters, the AMSA noted, "ice conditions and high operational costs will continue to be a factor into the future. Irrespective of the warming climate, ice will remain throughout the winter, making viable year-round operations expensive."²



Credit: Corporal Rick Ayer,
Formation Imaging

HMCS *Montréal* sails past some glaciers in Jones Sound during *Operation Nanook* 2010.

viability as a commercial transit route, and implications for Canadian sovereignty and security. The vigorous debate between Rob Huebert and Franklyn Griffiths a decade ago set the basic contours of the debate. Huebert anticipated a "sovereignty-on-thinning-ice" scenario: an increased volume of foreign shipping would precipitate a challenge to Canada's sovereignty (which he later clarified as 'control') over the Northwest Passage, thus necessitating immediate investments in military and security capabilities. Griffiths dismissed the idea that Canada faced an imminent sovereignty crisis, explaining why shipping interests would not flood into the passage and arguing that national efforts would be best invested in "cooperative stewardship" focused on environmental protection and Indigenous rights.¹

Activities in the last 10 years confirm Griffiths' prediction and offer little to support Huebert's. Arctic shipping has increased, but this has not produced any significant

Despite media coverage which highlights intensified Arctic competition and frames Arctic challenges as seeds for potential conflict, policy over the past decade indicates a strong trend toward cooperation. Competition may exist but this does not preclude cooperation in areas of common interest. Although the Ukrainian crisis has spilled over into Canadian Arctic security rhetoric since March 2014, this does not render obsolete the policy frameworks or underlying assumptions that guide Canada's integrated Arctic security strategy.

Canada's Northern Strategy: From 'Use it or Lose it' to 'Leading from Behind'

The government's Northern Strategy released in 2009 has elicited substantial academic and media commentary so the basic contours need no reiteration here. While academic literature emphasizes the government's allegedly disproportionate emphasis on defence and security at the expense of broader socio-economic, cultural and



HMCS *Goose Bay* moored at the future site of the Nanisivik Naval Facility during *Operation Nanook*, 20 August 2010.

environmental considerations, the literature tends to fixate on political speeches from 2006-2009 rather than official documents produced in the last five years. The government's early message was encapsulated by the Prime Minister's 2007 speech in Esquimalt, British Columbia, when he stated that "Canada has a choice when it comes to defending our sovereignty in the Arctic; either we use it or we lose it."³ Further public statements affirmed that the military was the government's instrument of choice to meet its sovereignty goals. For example, in one of its flagship Arctic initiatives designed to enhance Canada's military presence and capabilities, the government committed \$3.1 billion in new funding to build Arctic patrol ships for the Royal Canadian Navy. While the government has never formally repudiated this military-oriented policy line, there has been a discernible shift in messaging since 2009.

The Northern Strategy (2009) and Arctic Foreign Policy (2010) emphasize stable governance and the interests of Northerners, with government messaging quietly downplaying military threats to the Arctic and emphasizing cooperation – at least until the Ukrainian crisis. These documents also situate military roles in a broader, whole-of-government context. The Chief of the Defence Staff (CDS)/Deputy Minister (DM) Directive, issued in April 2011, explains that "in order to support the implementation of the Government[s] ... integrated Northern Strategy, ... DND/Canadian Forces (CF) will leverage its capabilities in order to demonstrate sovereignty, enhance presence and help ensure the security of Canada's Northern regions while concurrently improving its abilities to respond to crises and aid other government departments (OGD) and agencies in fulfilling their mandates."⁴ Otherwise stated, while other departments and agencies are the mandated lead to deal with most Northern security issues and emergencies, the military will 'lead from behind' in some situations given its capabilities and the limited resources and abilities of other potential responders in the region.⁵

Although statements continue to refer to the need for a more robust military *presence* to defend or demonstrate Canadian sovereignty (a role that is often mischaracterized

as bolstering Canada's international legal position), they also provide clarity on the military's supporting role to other government departments. The Canada First Defence Strategy released in 2008 asserts that "the Canadian Forces must have the capacity to exercise control over and defend Canada's sovereignty in the Arctic.... As activity in northern lands and waters accelerates, the military will play an increasingly vital role in demonstrating a visible Canadian presence in this potentially resource rich region, and in helping other government agencies such as the Coast Guard respond to any threats that may arise."⁶

The following year, the government released its long-awaited Northern Strategy built around four main themes: exercising Canadian Arctic sovereignty; protecting the Northern environment; promoting social and economic development; and improving and devolving Northern governance. It reiterated the promised military measures and the government's resolve to assert "firmly its presence in the North, ensuring we have the capability and capacity to protect and patrol the land, sea and sky in our sovereign Arctic territory."⁷ This confirmation of the early political message was now complemented by and situated in an integrated, whole-of-government strategy. Overall, Canada intends to demonstrate "effective stewardship and leadership internationally, to promote a stable, rules-based Arctic region where the rights of sovereign states are respected in accordance with international law and diplomacy."⁸ These messages were reiterated in the government's Statement on Canada's Arctic Foreign Policy in 2010 which cites as its first and foremost pillar "the exercise of our sovereignty over the Far North," but emphasizes that Canada "does not anticipate any military challenges in the Arctic and believes that the region is well managed through existing institutions, particularly the Arctic Council."⁹

Strategic frameworks produced by the Canadian military place an explicit emphasis on the security and safety aspects of the operations continuum. Although they continue to repeat the government line that military operations demonstrate sovereignty, practical guidance and planning focuses on better synchronizing the activities of the CAF, other government departments and



Are icebergs an endangered species in the North?

the international community. For example, the Arctic Integrating Concept (2010) lays out six general ‘ideas’ that guide military activities, including: defending Canada’s Arctic territory; responding to emergencies or crises; supporting organizations charged with enhancing stewardship, enforcing laws and regulations; providing services in the North; and contributing to international collaboration.¹⁰ To enhance its capacity “to carry out routine activities, including human security and safety tasks, while developing the ability to rapidly respond to urgent requirements as they arise,” the document suggests that the CAF should develop “critical capabilities” in five core areas: situational awareness; rapid deployment; sustainment; generating forces that can effectively operate in the Arctic; and improving the military’s ability to integrate and work with all partners with a whole-of-government/comprehensive approach.¹¹

Directives and plans released since that time reflect similar frameworks and ideas, highlighting the CAF’s contributions to humanitarian assistance and disaster relief, as well as law enforcement agencies. These documents share several core assumptions. They anticipate that climate change, resource development and melting sea ice will generate economic opportunities but will also pose challenges for the environment and for the traditional lifestyles of Indigenous peoples. While strategic assessments do not perceive direct threats to Canada’s defence and security or anticipate any major changes to traditional defence roles, they are attentive to emerging ‘soft’ security challenges. Accordingly, they focus more on ‘new’ environmental, human and cultural security risks and less on traditional military security.

The CAF is still considered to have a critical role in responding to Arctic emergencies, and its enduring national and continental defence responsibilities remain, but its main Northern capabilities will be developed to counter non-military threats within a whole-of-government approach and in partnership with international allies. Within this context, the government’s plans for Arctic Offshore Patrol Ships (AOPS) and a modest naval support facility at Nanisivik are not misplaced efforts. The constabulary capabilities of the AOPS, including armed surveillance, situation awareness and support to other departments

mandated to enforce Canadian laws, are suited to the joint operations and comprehensive approach promoted in the Arctic Integrating Concept. They may not fare well against a Russian submarine or ice-strengthened aircraft carrier (a scenario that Huebert might dream up), but presumably the United States has maritime capabilities and a nuclear deterrent to address a direct threat to continental defence and to NATO, as it has always done. Increasing global interest in the Arctic does not change this equation, and no strategic assessment (at least in the public domain) suggests otherwise.

The updated US Navy Arctic Roadmap (2014) predicts that the Arctic will “remain a low threat security environment” for the foreseeable future. To realize an end state of peace and stability, the report stresses the “unique and enduring partnership” that the United States enjoys with Canada.¹² Along similar lines, the US Department of Defense’s Arctic Strategy (2013) adopts a broad definition of security that alludes to the benefits of ‘burden-sharing’ across agencies and with international partners. Given the dismal fiscal environment in the United States, it is unsurprising that US policies are hesitant and non-committal about Arctic investments because of the high degree of uncertainty about *what* developments are likely in the region and *when*. Making premature or unnecessary investments, spurred by reactionary thinking, would deflect resources from more pressing priorities. The Arctic Strategy also warns that “being too aggressive in taking steps to address anticipated future security risks may create the conditions of mistrust and miscommunication under which such risks could materialize.”¹³

Policy statements promoting cooperation and circumpolar stability, bolstered by positive trends in Arctic state relations since 2008, are no guarantee that the situation will hold. Despite official assessments downplaying the prospect of regional military conflict, Huebert insists that an “Arctic arms race” and investments in combat capabilities among Arctic states portend heightened competition, and that international conflicts may spill over into the Arctic.¹⁴ The deterioration of Canada-Russia relations since the outbreak of the crisis in Ukraine, he argues, affirms that he has been right all along.¹⁵

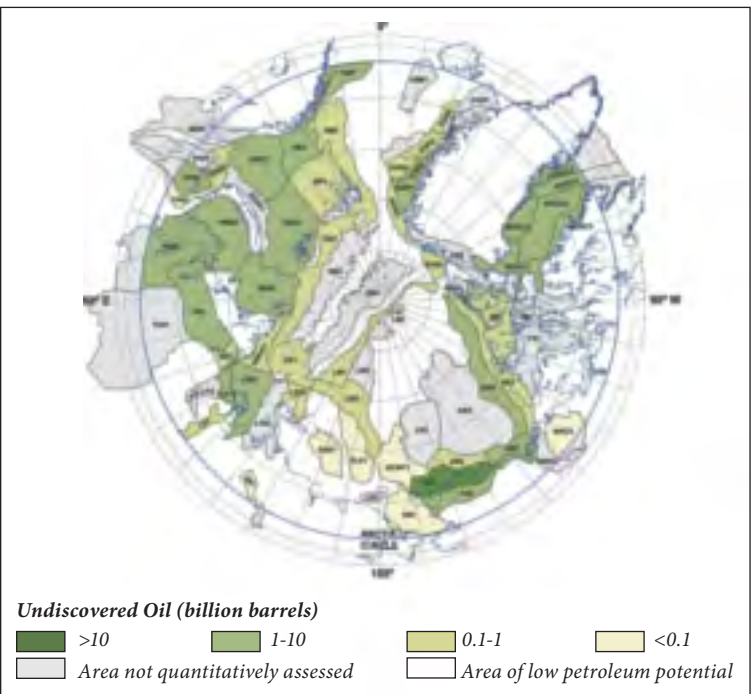
The Ukrainian crisis has shown that Arctic politics are not immune to international events. In April, Canada boycotted an Arctic Council meeting in Moscow to protest Russian actions in Crimea, showing the first signs of linking the two issues. Since then, officials have slipped into belligerent rhetoric linking Russian aggression in Eastern Europe to potential expansionism in the Arctic. Foreign Affairs Minister John Baird, who in January told the media that the two countries “worked well” on Arctic

issues, in August told a Danish newspaper that Canada was worried about Russia's military buildup in the Arctic. "We are deeply concerned and will naturally protect and promote Canadian sovereignty in the Arctic," he explained. "As for militarization, we prefer to de-escalate it, but it's very important that we protect and promote Canadian sovereignty."¹⁶ Prime Minister Harper, during his annual Northern tour, cautioned Canadians that despite Russia's adherence to international rules in the Arctic to date, its military adventurism in Eastern Europe meant that Canadians "should not be complacent, because we have seen over the period that President Putin has been in power just a gradual growing in aggressiveness of his government toward neighbours and the gradual military assertiveness of that country."¹⁷

These political statements, generated in a heated atmosphere in which Canada has taken a strident stand against Russian expansionism in Europe, may seem to support Huebert's argument that there will be conflict in the Arctic. After all, the geopolitical weather seems to be blowing in a worrying direction. But following short-term weather patterns is not a reliable measure of climate change. Long-term trends and sober analysis suggest that, even with the occasional cold snap, global warming is happening. Similarly, it takes more than political statements reacting to developments in the Ukraine to demonstrate that the broader course of Arctic politics has shifted from cooperation and that, by extension, Canada should redirect its efforts to building combat capabilities in preparation for Arctic conflict. Regional priorities and threat assessments, used to frame Arctic defence and security frameworks over the last decade, remain sound.

Accordingly, Canada's whole-of-government approach, designed to anticipate, prepare for and respond to non-combat security and safety scenarios, should not be hijacked by a retreat to Cold War thinking. As the Arctic Integrating Concept affirms, we need "new interpretive frameworks ... to respond effectively to changes occurring in the region."¹⁸ Existing policy frameworks offer a realistic basis to respond to the most probable (non-military) short- and medium-term challenges that Canada will face in the region. Rather than prematurely ramping up for an Arctic conflict that is unlikely to come, we should carefully monitor developments and wait for more sober indicators that the region is actually deviating from its established trajectory of international cooperation and stability before following Huebert's advice. 🍷

Stay tuned for Dr. Rob Huebert's response in the next issue of CNR!



Notes

1. For the essential elements of this debate, see Rob Huebert, "Climate Change and Canadian Sovereignty in the Northwest Passage," *Isuma: Canadian Journal of Policy Research*, Vol. 2, No. 4 (2001), pp. 86-94; Franklyn Griffiths, "The Shipping News: Canada's Arctic Sovereignty Not on Thinning Ice," *International Journal*, Vol. 58, No. 2 (2003), pp. 257-282; and Huebert, "The Shipping News Part II: How Canada's Arctic Sovereignty is on Thinning Ice," *International Journal*, Vol. 58, No. 3 (2003), pp. 295-308. For updated debates, see Franklyn Griffiths, Rob Huebert and P. Whitney Lackenbauer, *Canada and the Changing Arctic: Sovereignty, Security and Stewardship* (Waterloo: Wilfrid Laurier University Press, 2011).
2. Arctic Council, "Arctic Marine Shipping Assessment," 2009 Report, p. 14.
3. Prime Minister's Office, Speeches, "PM Announces New Arctic Offshore Patrol Ships," Esquimalt, British Columbia, 9 July 2007.
4. CDS/DM Directive for the DND/CF in Canada's North, 12 April 2011.
5. The exception is search and rescue, where DND has the lead for coordinating air and maritime SAR and providing aeronautical SAR.
6. Department of National Defence, "Canada First Defence Strategy," 2008.
7. Minister of Indian Affairs and Northern Development, "Canada's Northern Strategy: Our North, Our Heritage, Our Future," Ottawa, 2009.
8. *Ibid.*
9. Minister of Foreign Affairs and International Trade, "Statement on Canada's Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada's Northern Strategy Abroad," Ottawa, 2010.
10. Department of National Defence (DND), Chief of Force Development, "Arctic Integrating Concept," Ottawa, 2010, p. 30.
11. *Ibid.*, pp. ix-x.
12. US Department of Defense, Chief of Naval Operations, "U.S. Navy Arctic Roadmap 2014-2013," Washington, 2014, pp. 3, 7.
13. US Department of Defense, "Arctic Strategy," Washington, 2013, p. 13.
14. See, for example, Rob Huebert, "Is the Arctic Being Militarized or Securitized? And What Does it Matter?" *Canadian Defence and Foreign Affairs Institute Dispatch*, Vol. 9, No. 2 (2011), pp. 10-11; Rob Huebert, Heather Exner-Pirot, Adam Lajeunesse and Jay Gullede, *Climate Change & International Security: The Arctic as a Bellweather* (Washington: Center for Climate and Energy Solutions, 2012). For a contrary assessment, see Frédéric Lasserre, Jérôme Le Roy, and Richard Garon, "Is There an Arms Race in the Arctic?" *Journal of Military and Strategic Studies*, Vol. 14, No. 3&4 (2012), pp. 1-56.
15. See, for example, Rob Huebert, "How Russia's Move into Crimea Upended Canada's Arctic Strategy," *Globe and Mail*, 2 April 2014.
16. Michael Blanchfield, "Baird says Canada, Russia Work Well in Arctic Despite other Differences," *Globe and Mail*, 11 January 2014; Olle Damkjær, "Canada parat til Confrontation med Rusland," *Berlingske*, 25 August 2014.
17. Canadian Press, "Stephen Harper Concerned by Russia's Growing Military Presence in Arctic," 22 August 2014.
18. Chief of Force Development, "Arctic Integrating Concept," Ottawa, 2010.

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Mitigating Children's Involvement in Maritime Piracy

Carl Conradi



Credit: UK MoD/Wikimedia Commons

*Surrounded and outgunned, Somali pirates surrender to HMS **Cumberland's** Royal Marines boarding team in the Gulf of Aden, 18 December 2008.*

In late summer 2014, the Canadian Forces Maritime Warfare Centre (CFMWC) had the honour of hosting the prestigious Multilateral XII Wargame, an annual event that convenes representatives from eight of the Western Hemisphere's most powerful navies. In the past, game scenarios have sought to replicate the catastrophic conditions that have accompanied real-world political or environmental events, such as the 2010 earthquake in Haiti. However, among this year's various problems, participants were asked to simulate and discuss the burgeoning involvement of children in maritime piracy.

Until quite recently, the phenomenon of children's participation in maritime piracy elicited scant attention. Precious few academic articles have been written on the subject,¹ and little has been done to create practical counter-piracy doctrine that considers specific threats posed by children. Yet according to the Seychellois Department of Legal Affairs, some 10 to 20% of all pirates captured in the Indian Ocean have been below the age of 18.² These youths present naval and security personnel with unique challenges that merit a distinct tactical and operational response.

Since 2012, the Dalhousie University-based Dallaire Initiative has been partnering with the Dalhousie Marine Piracy Project (DMPP) to explore the security implications of children's involvement in maritime piracy. While it is not yet capable of offering doctrinal recommendations,

the Dallaire Initiative has managed to identify a number of key issues that demand further consideration by navies.

Child pirates share a great deal in common with child soldiers, insofar as they are recruited to serve specific tactical and operational functions – functions that adults are ill-disposed to serve themselves. Indeed, children are prized by unscrupulous commanders (and presumably, by pirate gangs) for being agile, submissive, trustworthy, daring and largely impervious to legal prosecution. Moreover, as Dr. Shelly Whitman has noted:

[T]he socio-economic factors (e.g. poverty, armed violence, lack of educational or employment opportunities, orphanhood, displacement and exposure to disease) that make children vulnerable for use by armed groups exist in each of the major areas where piracy is currently reported. In addition, in many of the regions where piracy exists, children are being used by terrorist groups, criminal gangs and within state and non-state armed groups (e.g. in Somalia, Nigeria and Haiti). Therefore, the use of children and youth by pirate groups could be viewed as a natural extension of these armed groups.³

When they are deployed against a professional armed force, children present adult security actors with a serious ethical dilemma – one that may result in either fatal hesitation or post-traumatic stress. For instance, if security

actors were reluctant to return fire against a child and this reluctance resulted in the death of a colleague, they might be blamed for the casualty. On the other hand, if they were to return fire thereby killing a child pirate or child soldier, they might be stigmatized by others (or by themselves) as a child killer.

For these various reasons, if Western armies and navies are not given adequate doctrinal guidance and clear preparatory training on the subject of child soldiers and/or child criminals, they may well become increasingly loathe to participate in operations that involve children. This would mean that the strategic advantage has effectively been ceded to persons who use boys and girls for criminal or political purposes. Obviously, this would be unacceptable.

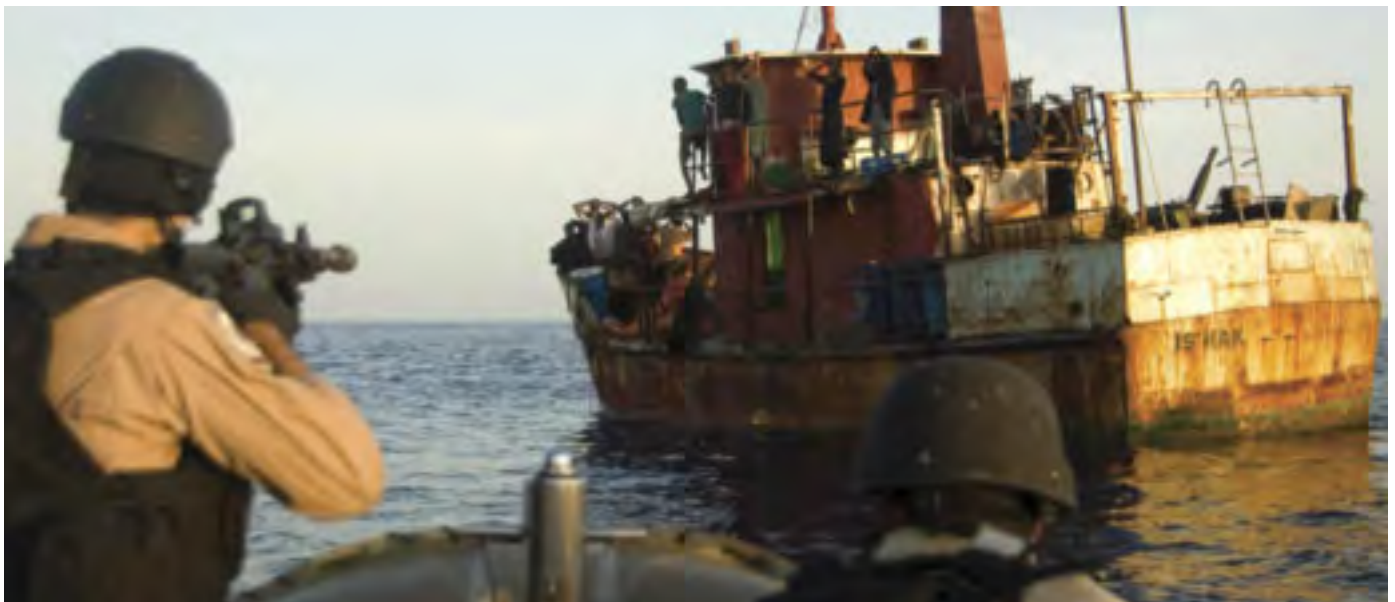
Challenges Inherent in Dealing with Children Involved in Piracy

In 2013, the Dallaire Initiative began the exercise of crafting rules of engagement (ROE) for naval personnel that apply specifically to child pirates. This work was accomplished with significant input from the CFMWC and was based upon the suite of ROE options put forth in the seminal Sanremo Handbook on Rules of Engagement.⁴ At this time, the Dallaire Initiative also became a supporting entity of the maritime private security industry's 100 Series Rules on the Use of Force (RUF), a "model set and example of best practice RUF [that] complement current industry RUF guidance."⁵

This period of consultation and design culminated in a security sector roundtable, held at CFB Halifax (Stadacona) from 21-23 October 2013. The event drew together some

20 naval personnel, private security contractors, civilian merchants, international lawyers and child protection experts, who were collectively tasked with assessing the Dallaire Initiative's proposed ROE via a series of scenario exercises. Ultimately, the roundtable led to a radical shift in the understanding of naval interactions with children at sea. In particular, as participants worked through the Dallaire Initiative's ROE, it became clear that it is both impractical and unadvisable to distinguish between adult pirates and child pirates in the heat of armed combat. While land-based forces have the ability to assess threat according to the actions of individuals, sea-based forces are necessarily obliged to assess threat according to the behaviour of entire ships. Whether children are present on any given ship is nearly impossible to ascertain in advance, and in the absence of such critical intelligence, security sector actors cannot be expected to employ child-specific ROE.

Furthermore, it was determined that although the UN Convention on the Law of the Sea (UNCLOS) and a supporting collection of UN Security Council Resolutions stipulate a clear legal responsibility to arrest any pirate encountered at sea, state navies frequently (and according to some, necessarily) ignore this responsibility when pursuing an ambiguous or conflicting operational mandate. For instance, roundtable participants expressed contrasting views as to whether apprehension and detention of alleged child pirates should be considered an integral component of counter-piracy operations. Some believe that once a threat has been neutralized, the counter-piracy mission has been accomplished whether pirates have been apprehended or not.



*Members of a team from the guided-missile cruiser USS **Gettysburg** (CG 64) and US Coast Guard Tactical Law Enforcement Team South Detachment 409 capture suspected Somali pirates after responding to a merchant vessel distress signal while operating as part of Combined Task Force (CTF) 151, 13 May 2009.*

Credit: Mass Communication Specialist 1st Class Eric L. Beauregard



A sailor aboard a safety boat observes a team, assigned to the guided-missile destroyer USS *Kidd* (DDG 100), aboard the Iranian-flagged fishing dhow *Al Molai 5* January 2012. The team detained 15 suspected pirates, who were holding a 13-member Iranian crew hostage.

This lack of operational clarity – coupled with the fact that most warships are not built to separate and accommodate large numbers of adult and child pirates – has meant that many navies, including Canada’s, pursue an unofficial policy of ‘catching and releasing’ suspected juveniles. Yet this is precisely the kind of strategy that the Dallaire Initiative is striving to abolish for if adult pirate commanders realise that navies routinely release children who are accused of piracy, they will opt to use children more often. In this way, catch and release provides a direct incentive for the recruitment of children into pirate gangs.

Near the end of the roundtable event, participants concluded that it would be prudent to shift focus from the creation of child-specific ROE to the creation of after-action standard operating procedures (SOPs), particularly for the ethical apprehension, detention, interview and transfer of children at sea. Indeed, it was universally affirmed that no such SOP currently exists within the Canadian navy or any international naval coalitions.

In pursuit of this new objective, the Dallaire Initiative decided that it first had to develop a better understanding of the status quo – that is, what navies are currently doing when faced with the challenge of apprehending

child pirates. This preliminary research prompted my attendance on behalf of the Dallaire Initiative at the November 2013 Counter-Piracy Week in Djibouti, as well as a four-week field mission to Kenya and the Seychelles, from February through March 2014. Both missions yielded a significant amount of pertinent information. In particular, it became clear that children’s participation in maritime piracy is an incontrovertible fact. Indeed, it was at this time that I learned that, as was mentioned earlier, some 10 to 20% of all pirates captured in the Indian Ocean are below the age of 18.

According to the Seychellois Department of Legal Affairs, the average size of a Somali pirate group is nine persons, though they may be comprised of as few as four persons and as many as 15. Typically, one crew member aged 32+ will serve as captain, while members of the boarding party are usually between the ages of 18 and 30. However, in almost all cases, one youth below the age of 18 will be employed to serve in a support capacity (e.g., as a cook or a cleaner). On occasion – as in the hijackings of *SV Quest*, *FV Vega 5*, *MV Semlow* and *MV Maersk Alabama* – this juvenile auxiliary will be made to participate in boarding party activities. This organizational structure was corroborated by a group of some 20 Somali pirates who are currently incarcerated at the Montagne Posée prison in the Seychelles.

According to the United Nations Office on Drugs and Crime (UNODC) in Nairobi, these youths are incorporated into pirate operations precisely because they are “nimble” and “expendable.”⁶ Moreover, according to the Mombasa-based Seafarers’ Assistance Programme, adult pirates may choose to employ children because they are morally “pure,” thereby ensuring that their prayers for calm seas and successful operations pass directly to



Container ship *MV Maersk Alabama* leaves Mombasa, Kenya, 21 April 2009, after spending time in port after a pirate attack that took her captain hostage.



Credit: Author

Montagne Posée Prison is set in a remote mountain setting in the Seychelles. Some of the prisoners are Somali pirates, imprisoned hundreds of miles from home.

Allah.⁷ Worryingly, there is also anecdotal evidence to suggest that juvenile pirates may be thrown overboard after a successful take so that their share of the spoils can be redistributed amongst their adult associates.

à e Importance of SOP Specific to Child Pirates

While nobody interviewed by the Dallaire Initiative was able officially to confirm that navies in the Indian Ocean are *deliberately* pursuing a strategy of catching and releasing juvenile pirates, many intimated that they had heard stories to this effect. In the absence of clear doctrinal prescriptions and/or sufficient space to detain large numbers (and different demographics) of pirates, this is somewhat understandable. However, as was mentioned previously, such a strategy may have the unintended consequence of providing an incentive for people to utilize children in maritime piracy.

If we agree that navies have a strategic interest in apprehending and detaining pirates – irrespective of their age – then we must consider how such a detention would unfold. Where juveniles are concerned, navies would face the complicated task of physically separating child pirates from their adult associates. This protocol, which has already been established as an international child protection norm on land, is necessary because of the dire physical and psychological risks that adult detainees may pose to children. Indeed, even when a person is only *suspected* of being a child, he/she should be treated as such and separated.

Of course, such partition is fraught with challenges. For example, in early 2014, when the Seychelles police separated a 14-year-old Somali pirate from his adult associates, the boy tried to commit suicide twice. According to the Seychelles police, the boy was terrified that his associates would think that he'd snitched.

Moreover, when children are being detained by guards who do not share their language, religion or culture (as is the case amongst Somali children detained in the Seychelles), these differences may aggravate their sense of isolation. This is why the Seychelles Prison Service has opted to incarcerate Somali children alongside Somali adults, a practice that it does not use for indigenous Seychellois juvenile offenders.

Nevertheless, even within these seemingly compelling circumstances, child pirates should be separated from adults. While the attempt to mitigate a child's sense of isolation or suicidal thoughts is entirely commendable, the solution lies in robust monitoring and the provision of child-specific services, *not* in keeping children and adults together.

Once suspected child pirates have been separated from their adult associates, navies must undertake an individual age assessment so as to confirm as accurately as possible that a suspected juvenile is indeed below the age of 18. Navies already play a tremendously important role in this respect. In the Seychelles, when an alleged pirate is being prosecuted, the age provided by the resident physician aboard the apprehending warship will determine whether he is tried as a minor or as an adult.



In 2011, Indian naval forces in the Arabian Sea captured the Mozambique-flagged fishing vessel *Vega 5*. Somali pirates had refurbished *Vega 5* into a 'mothership.' Of the 61 people who were arrested, 25 were determined to be under the age of 15, and ensuing reports revealed that four of the pirates could not have been older than 11.

At present, the only age assessment technique employed by Western navies (and by most East African prison services) is medical examination. However, while affording some veneer of precision, medical examinations – including, for example, dental and bone scans conducted on land – are often highly inaccurate. This is especially true in cases involving persons who are malnourished or diseased and whose bodies are therefore suffering from accelerated ageing. Such is often the case amongst apprehended Somali pirates, many of whom may appear to be older than they actually are.

In light of the above, UNICEF has actually recommended that medical examination be the last of several techniques



Siroco (L 9012) is a *Foudre*-class amphibious assault ship of the French Navy. In December 2013 she was serving as the flagship of European Union Naval Force Somalia.

employed during an age assessment. The assessor is first and foremost encouraged to conduct a psychosocial interview with the suspected child. By asking questions that probe memories and associated inconsistencies, skilled child protection officers are able to estimate a person's age within a narrow window of months or years. Medical examinations should then be used only to corroborate what has been discovered during the interview. Unfortunately where navies are concerned, such procedures would require specialized training and translation services, neither of which are currently available.

Conclusion

It is clear that the involvement of children in maritime piracy is a widespread phenomenon (particularly in the Indian Ocean, though possibly in the Gulf of Guinea, the Straits of Malacca and other areas where youth and criminality have frequently intersected). Work on child maritime piracy is making great progress but there remain a number of related problems that demand further consideration by concerned navies.

The preliminary recommendations of the Dallaire Initiative on the subject of child maritime piracy are as follows. First, in recognizing that children afford pirate gangs certain idiosyncratic tactical and operational advantages, naval doctrine must outline a child-specific tactical and operational response. It appears that the Royal Navy has already made some headway in this respect, having drafted specific guidance for engaging (though not necessarily detaining) children at sea. The Royal Navy doctrine may therefore serve as one possible model.

Second, more specifically, navies must include apprehension and detention as integral, compulsory components of counter-piracy operations, especially when intelligence indicates that children may be present. In the absence of such clarity, some naval personnel may believe that once a suspected pirate ship has been neutralized, the counter-piracy mission has been accomplished. This would effectively mean that possible juvenile crew members are being left with criminal elements – a move prohibited by international children's rights law.

Third, warships deployed to participate in counter-piracy operations should be equipped with multiple detention facilities, so as to allow for the possible separation of child and adult detainees. During my visit to Kenya and the Seychelles, it became clear that certain navies – such as the French Navy – have already begun to do so (see, for example, the ships *Siroco*, *Floréal* and *Nivôse*). If a given navy does not possess a warship with these facilities, alternative procedures should be devised to preserve the spirit of what separation is intended to accomplish.

And finally, when a suspected child pirate is being subjected to age assessment aboard a naval warship, the first technique used should be the psychosocial interview. Recognising that most warships do not already have a designated child protection officer who is experienced in such exercises, navies should collaborate with international child protection organizations to have a particular 'point person' on board the ship who is trained in general child protection. This person should also receive some context-specific training in the operating region's culture and history. 🇫🇷

Notes

1. See Danielle Fritz, "Child Pirates from Somalia: A Call for the International Community to Support the Further Development of Juvenile Justice Systems in Puntland and Somaliland," *Case Western Reserve Journal of International Law*, Vol. 44 (2012); Mark Drumbl, "Child Pirates: Rehabilitation, Reintegration and Accountability," *Washington & Lee Legal Studies Paper No. 2 013-16*; and Shelly Whitman, "Children and Youth in Marine Piracy: Causes, Consequences and the Way Forward," Romeo Dallaire Child Soldiers Initiative, Dalhousie University, December 2012.
2. Interview with Charles Brown, Senior State Counsel, Republic of Seychelles, March 2014.
3. Whitman, "Children and Youth in Marine Piracy."
4. Commander Ian Cole RN, et al., "Rules of Engagement Handbook," International Institute of Humanitarian Law, Sanremo, 2009.
5. 100 Series Rules, "An International Model Set of Maritime Rules for the Use of Force," 2013, available at <http://100seriesrules.com>.
6. Interview with Kaitlin Meredith, Associate Programme Officer, Legal, February 2014.
7. Interview with Andrew Mwangura, Director, Seafarers' Assistance Programme, February 2014.

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Reflections on Cruising in Southeast Asian Waters

Michael Young

Last winter I was in Singapore to take a cruise in Southeast Asia waters. It had been almost 17 years since I was last there and I found that much has changed – not surprising of course. Raffles Hotel still basks in its own splendour although some of its prices have more than tripled since my last visit. Chinatown is virtually unchanged (cleaner perhaps) but not so the rest of this highly regulated and controlled cosmopolitan city. Embarkation on the cruise ship was through a brand new terminal built on a pier extending from reclaimed land. Nearby, on the same land mass, is a massive complex with a multitude of gantries for loading and unloading container ships. The facility is busy around the clock handling ships big and small. There is a monster hotel and convention/exhibition complex¹ to the east, built on the same reclaimed land, which dominates its surroundings.

It is somewhat comforting to find that to seaward not much has changed. Out in the Singapore Strait a constant stream of ships of all shapes, sizes and functions follows the crowded traffic separation lanes both east and west – it reminds me of rush hour traffic on Highway 401 north of

Toronto! The sheer volume of shipping is an indicator of just how vital this strategic strait is to world trade. Singapore vies with Shanghai and Rotterdam for the title of both the world's busiest port and busiest container port. It is also a vital waypoint, and one of the chokepoints, on the route between those key ports.

It stands alone as the world's busiest bunkering port and transshipment centre. The vast anchorages to the east and west of the Singapore roadstead are full of ships; a few are awaiting a berth to load or unload cargo but many are laid up awaiting further employment. There are literally hundreds of ships neatly aligned in rows and columns pointing into the current like a huge static convoy. Most are bulk carriers and tankers with many offshore oil rig supply ships. Unfortunately too many have been there for some time. Victims of the recession, they are laid up with a skeleton crew awaiting a charter, a sale or a voyage to the scrapyard. At one point in the last few years, there were over 500 such ships in and around these anchorages. Since anchorage off Singapore is not free (over \$1,000 per day), there are many more of these unfortunate ships,



Part of the crowded eastern anchorage off Singapore Harbour.

Credit: Author



Inter-island ferries anchored between trips off Lombok, Indonesia.

some without any crew at all, anchored in an area south of Singapore in Indonesian waters where anchoring is free but there are no boat services.

From Singapore, over a period of four and a half weeks in January and February 2014, we visited the Indonesian islands of Lombok, Komodo and Bali, then ports in Malaysia and western Thailand before venturing through the South China Sea to Bangkok, Vietnam and Hong Kong. We stopped twice more in Singapore. We sailed in the storied waters of the Java Sea where the combined American-British-Dutch-Australian (ABDA) naval force under the command of Dutch Admiral Karel Doorman was annihilated by Imperial Japanese Naval Forces in February 1942. En route to Bangkok we passed near the site of the wrecks of HMS *Repulse* and *Prince of Wales*.

It quickly became obvious that the sea is the commercial lifeblood of the island state of Indonesia. Goods and people take passage between and among the islands and passenger ferries of many shapes and sizes can be seen in each port. That not all of these vessels are fully observant of all safety measures is reflected in the number of them which

have become casualties, usually in bad weather, in recent years. Most of the inter- and intra-island cargo trade is done by small, self-unloading multi-purpose ships. These can carry bulk cargo, container loads or a combination of the two. While these ships bring the containers to a port, the contents are distributed by small wooden-hulled vessels called *phinisi* which are often crewed by one family. Nowadays driven by diesel engines instead of sails, they are 35-50 metres in length with a relatively large cargo capacity. They look like junks with an extended prow and are ubiquitous in Indonesian waters. Vessels of similar basic design are found along the Malaysian, Thai and Vietnamese coasts.

The islands of Lombok and Bali are very different despite similar sized populations. Where Lombok is predominantly Muslim in religion and culture, Bali is Hindu. Lombok has an economy dominated by agriculture and is a major supplier of rice to the rest of Indonesia. Bali has an economy dominated by tourism despite the fact that the agricultural sector provides the majority of employment on the island. Lombok has a network of primarily two



Oil slicks on the sea surface off the island of Komodo, Indonesia.

lane highways which are crammed with people on scooters and the highway shoulders are littered with garbage. Much of the architecture of the capital Mataram is Dutch colonial and dates from the period of colonial rule. The primary port in Bali, Benoa, is modern with freeways, high-rise buildings, traffic congestion, pollution, tourist resorts and virtually all the standard North American fast food outlets. It is also home to a small industry of schools which train Indonesians for work on cruise ships. A large number of Balinese, as well as young men and women from the other islands, work in the industry. It is not easy work. They toil for several months at a time as wait staff, bartenders, stateroom attendants and kitchen staff. However, in relative terms they are paid well and help feed their families at home.

The island of Komodo is the home of the notorious dragons and a national park. The dragons are rather ugly in

appearance and temperament. They also like blood so it is good to stay well clear!

There are disturbing signs that all may not be well in the Asian maritime environment. Throughout the voyage there was a constant haze on the horizon. Except for the passage from Komodo to Bali, which took the ship south of the islands and into the northeastern corner of the Indian Ocean, there was no sharp horizon visible. The range of visibility rarely exceeded seven or eight nautical miles when it could have been 12 or more from the high decks of our cruise ship. We constantly ran across evidence of old oil slicks. In the Gulf of Thailand a distinct sheen on the calm water was noticeable – the remains of old fuel spills with streaks that spread like long fingers over the sea surface. These are not pristine waters. There seems to be a much lower level of concern about polluting the ocean in this region than in Europe or North America.



Oil spill in Singapore Harbour with the city in the background.



Close-up of the oil spill in Singapore Harbour.

For example, during one departure from Singapore the ship had to back out from its berth through a new oil spill drifting with wind and tide across the harbour. It was heavy fuel oil spilled from a ship alongside a nearby container dock. The response seemed almost casual. There was no containment boom around the offending ship and two large launches from the Harbour Master's organization eventually appeared to spray dispersant over the oil. How successful they were is uncertain as we steamed out into the strait again.

Other than the streaks of oil on the surface there was garbage from human sources in the water everywhere. The worst is in the Gulf of Thailand and off Vietnam. Plastic bags drift on the water and chunks of partially submerged debris of indeterminate origin show up from time to time. Some are quite large slabs of plastic or fibreglass. No wonder debris such as this, sighted in the southern part of the Gulf of Thailand, was thought to be wreckage from the vanished flight MH 370.

After seeing parts of Malaysia and Thailand, visiting Vietnam made for an interesting comparison. The port for Ho Chi Minh City, or Saigon as the locals still call it, is large but not in the same league as those we saw in Malaysia and Bangkok. The city itself was bustling and seemed fairly

prosperous, although there were still hammer and sickle banners hanging in the streets. Hue had a little less bustle, but Hanoi displayed the worst example of the Vietnamese tendency to look upon the rules of the road, including the proper side on which to drive, as simply advisory. It is a mystery why there are not more deaths on the roads.

Looking back on nearly five weeks of cruising in the region, it was a fascinating experience for me. It is a very different world, with such a rich history, from what North American eyes are used to seeing and it is wrong to judge the region by Western standards. The extent of industrial development and the progress that is being made, despite some significant political issues, is remarkable. Unfortunately, this rapid progress has a price – severe traffic congestion, air and water pollution – and only time will show if this price is too much in the end. 🙏

Notes

1. The Marina Bay Sands Hotel, which is said to be the most expensive building in the world.

Michael Young is a retired naval officer who served in both submarines and surface ships and in staff positions in Ottawa and Halifax. He is a member of the CNR Editorial Board and former editor of Starshell, the national publication of the NAC.

Staying the Shipbuilding Course

Janet Thorsteinson

Two mid-summer events, a day apart, demonstrated both the potential of a truly national shipbuilding strategy and the effort necessary for its achievement. On Friday, 4 July, Queen Elizabeth II formally named the largest warship ever built in the United Kingdom. At 65,000 tonnes, the aircraft carrier HMS *Queen Elizabeth* represents five years of construction and a milestone in centuries of commitment to a sovereign naval shipbuilding strategy. Together with the next in the *Queen Elizabeth*-class, HMS *Prince of Wales*, and a complement of fighter jets and helicopters, the ships will maintain a global reach. National media reflected national pride. As an article in *the Guardian* stated, “[t]he length of each ship is the equivalent of 28 London buses – almost three times the length of Buckingham Palace. Each ship, which has a life expectancy of around 50 years, will be fitted out with more than 3m metres of cable and it will have enough power to light up a small town.”¹

The previous day, another ceremony an ocean away, in Halifax, Nova Scotia, illustrated how far Canada’s National Shipbuilding Procurement Strategy (NSPS) still has to go to fulfill its promise to build naval and coast guard ships and maintain the capability to do so in the future. The event marked the hiring of four aboriginal workers, Nova Scotia Mi’kmaq, to work on the construction of shipbuilding infrastructure for the Irving Shipyard. Some time in the fall of 2015 Irving will begin construction of Arctic Offshore Patrol Ships (AOPS) for the Royal Canadian Navy. About 50 officials turned out to welcome the quartet of aboriginal workers to the NSPS workforce, surprising at least one political commentator who seemed to think it a larger number than the occasion warranted.² The presence of politicians like Bernard Valcourt, Minister of Aboriginal Affairs and Northern Development Canada, and Peter MacKay, Minister of Justice and Attorney General of Canada, was a strong signal of their support. The National Shipbuilding Procurement Strategy needs that support.

The struggle to build new Canadian navy and coast guard ships in Canada neither began nor ended with the announcement of the NSPS on 3 June 2010. Because the overall strategy cannot be judged by results for years, if not decades, its opponents and proponents will interpret events into arguments in what could at times be a grinding campaign. Each side must ultimately make its case to a number of audiences, the most obvious being the Canadian voter.



First section of HMS *Queen Elizabeth* in place at Rosyth, 9 April 2011.

The Auditor General’s report in fall 2013 highlighted the NSPS and provided ammunition for this battle of perceptions.³ In an article Joyce Murray, Liberal MP for Vancouver Quadra and her party’s national defence critic, made the most of the shipbuilding budget shortfalls that were identified. She stated that “Canadians have every right to demand better answers from their government. It is time the government come clean with Canadians: either reveal the true costs of the NSPS, or admit that they plan to build a smaller, less capable Navy.”⁴

It is no secret that the government does have some contradictions to reconcile but it is also a fact that critics are hearing a complete story. The government may not release information willingly but it is released. The media stories may shape a negative perception but it is not clear that Canadians are particularly shocked or outraged to learn that projects drag and costs go up. For example, after a fire crippled HMCS *Protecteur* in the Pacific Ocean, CBC’s Terry Milewski linked the incident to shipbuilding delays and cost overruns in the NSPS, but the story did not seem to have a lasting impact and may have been perceived as not particularly exceptional – just another shot at the NSPS target.⁵



Credit: Irving Shipbuilding Inc.

Representatives from Irving Shipbuilding, Walters Steel, Ironworkers Local 752, Hatch Mott MacDonald, EllisDon and Irving Equipment gathered on 6 August 2014 to celebrate the installation of the last steel truss on Irving Shipbuilding's new Production Building where new naval combat ships will be built starting in 2015.

Other incidents, like the 'backstop' story, can almost spin themselves into positives. Backstop provisions, part of an Umbrella Agreement under the NSPS, essentially recognize that shipyard investments assume risk. In the government's words, "[a]s part of this agreement, Vancouver Shipyards and Irving Shipbuilding are undertaking infrastructure upgrades by investing \$200M and \$300M respectively, at no cost to Canada. Canada agreed to backstop the shipyards' investment in the unlikely event that projects are delayed, cancelled or reduced in scope."⁶ The *Halifax Chronicle Herald* called it a significant post-contract change, but conceded that "[w]ithout the backstop, Irving and Seaspan would have had to start upgrades before building contracts were signed." As well, the government has said that the shipyards might have had grounds to sue if the program had been cancelled at that point. According to government officials, the backstop is "a way of quantifying and sharing the risk."⁷

In fact, the backstop is a sophisticated solution that demonstrates two very important things: first, that government recognizes the importance of risk-sharing; and second, that it can implement flexible arrangements that meet industry needs without over-committing the taxpayer. This success may well have been facilitated by and built upon the collaborative work that led to the NSPS itself. While Canada has nothing even close to the 'military-industrial complex' so dreaded by opponents of close ties between government and the defence industry, there is a growing relationship – not a partnership – between the public customer and the companies that provide military equipment. In Canada, given the intense scrutiny of defence procurement, taxpayers should be reassured that industry and government are working on a relationship which requires and builds trust and compromise on each side.

It is impossible to know what obstacles will militate against the smooth implementation of the NSPS. For example, future changes in government may raise serious political risks to a strategy that was designed to provide

long-term benefits across decades and across Canada. Some factors, like the higher costs this country must pay for a 'made in Canada' strategy, will always be debated. The extended timescale of the NSPS, perhaps unique for a Canadian project, and the relative distance in time of even its earliest deliverables – ships – might make it vulnerable. The financial resources and political capital the strategy consumes are real and present, while the results are remote.

In the meantime, champions of the NSPS must make the most of incremental gains. If it takes 50 officials to announce the hiring of four people, so be it. Their attendance sends a message that cannot be distorted by the most cynical news outlet. Those officials, including two Ministers, considered the event important enough to attend. In the days ahead, proponents of shipbuilding in Canada will be careful to ensure that people understand that even though the shipyards are not yet delivering finished ships, an increasing number of Canadians, including four aboriginals now employed through Irving Shipyards, are already cashing cheques. In a long campaign, small wins count. 🍷

Notes

1. "Royal Navy's Biggest Aircraft Carrier to be Named by Queen," *the Guardian*, 4 July 2014.
2. Don Martin, "So, Four Aboriginal Tradespeople Hired by Irving shipbuilding and 50 People Incl Two Ministers (MacKay, Valcourt) Gather to Announce it," 3 July 2014, @DonMartinCTV, <https://twitter.com/DonMartinCTV>.
3. Report of the Auditor General of Canada, 2013 Fall, "Chapter 3: National Shipbuilding Procurement Strategy."
4. Joyce Murray, "Canada's Navy is a Sinking Ship," posted on Huffington Post, 27 November 2013.
5. Terry Milewski, "Shipbuilding Memo Shows More Delays, Cost Overruns," *CBC News*, 7 March 2014.
6. Public Works and Government Services Canada, "Background on the National Shipbuilding Procurement Strategy," November 2013.
7. Paul McLeod, "Ship Contract Changes Queried," *the Chronicle-Herald*, 26 November 2014.

After over 30 years in the public service, Janet & Orsteinson became Vice-President Government Relations at the Canadian Association of Defence and Security Industries (CADSI).



Making Waves

Preventing Incidents at Sea in the Pacific

David N. Griffiths

As one would expect from the naval officer and scholar who, literally as well as figuratively, wrote the book on the origins of prevention of incidents at sea agreements (INCSEAs), David Winkler got it exactly right about the US-China situation in his recent article in the *Canadian Naval Review*.¹ Despite raising an eyebrow when I first read it, I am grateful for his comments about a monograph which I wrote on US-China arrangements, not because I agree entirely, but because this response to his comments offers me a good excuse to emphasize an important point.² It is also an opportunity to discuss recent developments in what had been entitled Code for Unaltered Encounters at Sea when he wrote his article.

Let me respond to several points in Dr. Winkler's article. First, he states that another author and I both "incorrectly portray INCSEA as a navy-to-navy accord" as distinct from "government-to-government." Although I might quibble with his assessment, I will acknowledge cheerfully that I could have chosen my words more precisely. He is correct; INCSEA is a government-to-government arrangement, which he describes as taking the form of a "ministry-to-ministry" accord. My use of "navy-to-navy" did not, however, imply that people in uniform were somehow acting independently of political direction or the chain of political command of their respective governments. Indeed, the monograph emphasized that "the military is an instrument of the state, custodian of the national armory, and steward of some of the government's most sensitive security concerns. Furthermore, in most advanced societies, it is firmly subordinate to civilian leadership. Consequently, any suggestion of an independent role can (and should) be viewed with justifiable suspicion in political and diplomatic circles."³ It goes on to explain that navy-to-navy "dialogue" (perhaps negotiation and implementation would have been the better wording in this context) must be conducted on behalf of and in accordance with the direction of political authority.

Managing maritime incidents is a political imperative, especially in complex, volatile parts of the world. Confrontation at sea may result from a deliberate decision by a government, but it is a risky step which, if it is to achieve the desired results, requires both skillful management and unambiguous communication with whoever is being confronted. Unintended incidents open the door to unintended consequences so preventing them should



Credit: Ronald O'Rourke, "Maritime Territorial and Exclusive Economic Zone (EEZ) Disputes Involving China: Issues for Congress", Congressional Research Service, 3 July 2014, p. 6.

Locations of recent incidents at sea and in the air.

be a political priority, along with ensuring that robust cooperative incident management mechanisms are in place whenever prevention fails. Government is supposed to manage events and minimize risk and, as I said in my monograph, "no political leader wants a situation where an honest misjudgment by a junior officer at sea may create a counterproductive international political problem at an inopportune moment. The challenge, therefore, is for political leaders to understand the unique nature and advantages of frank and open mutual problem solving and then to define the 'political space' within which naval professionals are free to deal with technical matters candidly and honestly."⁴

While there is no question that arrangements for maritime incident management must be commitments between governments, the ministry-to-ministry characterization may not be as simple as it sounds. In most countries, navies, including maritime aviation, reside within Departments of Defence which, in turn, are headed by a Minister of government. Nonetheless, implications of incidents at sea can also fall within the purview of other ministries, ranging from Foreign Affairs, to Marine Transport, to Fisheries. The issue, then, is which ministry takes the lead.

The Chinese situation is even more complicated because the Defence Minister is not even a member of the Politburo



Credit: Chief Mass Communication Specialist Peter D. Lawlor

Chief of Naval Operations Admiral Jonathan Greenert and Chief of Navy of the People's Liberation Army (Navy) Admiral Wu Shengli engage in conversation during a welcome reception hosted by the PLA (Navy) at the 14th Western Pacific Naval Symposium (WPNS), 21 April 2014.

and primary direction for the armed forces comes from the Communist Party.⁵ This in itself is not important; what counts is that, whatever the internal political structure of the respective parties, the specifics of maritime incident management arrangements must be 'sailor-made.' That not only ensures practical effectiveness at the tactical level but also avoids more subtle complications. For example, Canada's INCSEA with the Soviet Union/Russia appears to have been signed by Foreign, rather than Defence Ministers or their naval representatives, apparently because there was no other document for them to sign to conclude a summit. As a consequence, even simple amendments to straightforward technical details had to be routed through the treaty amendment process in Foreign Affairs, rather than simply agreed and signed-off by the respective Admirals.⁶ That slows down a process which should be agile and responsive.

My second comment about Dr. Winkler's article relates to the western Pacific 'code.' He makes the very sensible suggestion that improved US-China maritime interaction at sea can build upon the foundation of the existing US-China Military Maritime Consultative Agreement (MMCA) and multilateral Code for Unalerted Encounters at Sea (CUES). Since his article was published in early 2014 there have been developments with CUES. It was first introduced at the seventh Western Pacific Naval Symposium (WPNS) in 2000. More than a decade of progress toward unanimous adoption was blocked by China at the 13th meeting in 2012, ostensibly over it being called a 'code' (which could be interpreted as implying a binding rather than voluntary commitment), and its provision that English be the primary language of communication.

Two years later, however, a re-titled CUES (now Code for *Unplanned* Encounters at Sea) was adopted in April 2014 at the 14th WPNS in Qingdao, China. It was adopted unanimously according to Chinese reports or by "an overwhelming majority of the WPNS voting members" according to the US Navy.⁷ Interestingly, the word 'code' and the English language provision are both still there. Although the document had been evolving over 14 years, Chinese media publicized its adoption enthusiastically to the domestic audience as a new initiative signed at a Chinese-hosted event, due in large measure to China "actively pushing forward this code."⁸ This is an observation rather than a criticism since political desire to look good to domestic audiences is hardly unique to China. The important thing is that all WPNS members have now endorsed this voluntary code and made public commitments to interact safely to avoid dangerous situations at sea. The issue now is whether future actions will match the words. Therein lies the challenge.



Credit: Wikipedia

USNS Impeccable (T-AGOS-23) is one of the six Ocean Surveillance Ships that are part of the 29 ships in Military Sealift Command's Special Mission Ships Program.

One risk of over-emphasizing the navy-to-navy aspect of incident management mechanisms (as my monograph did, although I was thinking more of historical experience than the current Asia-Pacific case) is that whereas navies may be the lead agencies since they are the instruments of maritime foreign policy, other ministries are also affected. Excluding them from the wording of such arrangements can provide loopholes to those who wish to avoid the provisions or to justify non-compliance. For example, incidents at sea in the western Pacific often involve coast guard, fishing, or even ostensibly civilian vessels, yet the 'new' CUES is specifically directed at naval ships and naval aircraft including naval auxiliaries. Strictly speaking, then, CUES would not address the 2009 incident involving USNS *Impeccable* to which both Dr.



Winkler and I refer, since the Chinese vessels were not naval.⁹ Nor would it address such confrontations as those between Japanese and Chinese coast guard and other non-naval vessels in the vicinity of the disputed Daiyu/Senkaku Islands. That could have been resolved in part simply by adopting the wording of the UN Convention on Law of the Sea (UNCLOS) and including ‘government ships operated for non-commercial purposes,’ but perhaps not doing so was a conscious outcome of the prolonged negotiations.

In a similar vein, the MMCA makes only one brief reference to avoidance of *accidents* at sea but says nothing about *incidents*. That is surely significant. Most of the events that these arrangements are intended to address arise when vessels and aircraft are conducting government-mandated operations – in other words, they are not *accidents*. The *Impeccable* incident mentioned earlier was deliberate Chinese obstruction of deliberate underwater surveillance by an American naval auxiliary in the vicinity of a major Chinese submarine base. The 2013 near-collision between USS *Cowpens* and an escort to the Chinese aircraft carrier *Liaoning* was a deliberate Chinese response to deliberate US surveillance of the carrier.¹⁰

Conclusions

This discussion, triggered by Dr. Winkler’s excellent article, leads to three conclusions. First, there needs to be clarity about who develops, authorizes and implements maritime incident management arrangements which are, and must be, government-to-government. Many are accurately described as ministry-to-ministry agreements, as the original 1972 US-USSR agreement was. In a western Pacific context, however, they should ideally be made by the parties on the basis of what in Canada would be called a ‘whole of government’ approach and apply to all organs of the state, including those which oversee civilians who take it upon themselves to become involved.

Second, no matter who approves and signs them, such agreements need to be developed by the professionals who must put them into practice at sea. As my monograph argues, “tactical-level interaction at sea is too complex to be governed solely by legal arrangements and political postures. It is too important to be conducted on-scene by best guesses about each other’s intentions, especially when things get exciting and the testosterone and adrenaline start flowing.”¹¹ These arrangements need to be sailor-made, on behalf of government and in accordance with political policy.

Finally, Cold War INCSEAs and contemporary arrangements in the western Pacific are not the only examples.¹² For more than 40 years, states (and even non-states such as the Palestinian Authority) have worked on maritime incident management initiatives with varying degrees of success. There is a lot of precedent and a wide range of experience, both good and bad, upon which to draw, not least the positive change in the nature of relationships between opposing navies once both sides commit to working toward practical solutions for mutual safety and predictable behaviour. To conclude, as the monograph did, “[t]here is nothing to lose and much to gain from drawing on that experience now, before a simple misunderstanding, mistake, or accident creates a problem that neither government intends or wants.”¹³ 🍷

Notes

1. David F. Winkler, “Breaking News: Incidents at Sea Did Not End with the Cold War!” *Canadian Naval Review*, Vol. 9, No. 4 (2014), pp. 15-21.
2. David Griffiths, “US-China Maritime Confidence Building: Paradigms, Precedents and Prospects,” *China Maritime Study* No. 6, Naval War College, 2010.
3. *Ibid.*, p. 19.
4. *Ibid.*, p. 19.
5. “The Nomenklatura: Vertical Meets Horizontal,” *Le Monde diplomatique*, 1 December, 2012.
6. The author was secretary to a Canadian INCSEA delegation when this issue arose.
7. US Chief of Naval Operations Public Affairs, “Navy Leaders Agree to CUES at 14th WPNS.”
8. The author observed the media coverage while travelling in China at the time. An example, from which this quotation was taken, is a video report on “Code of naval conduct signed” posted on the English language website of the China News Service at <http://www.ecns.cn/video/2014/04-23/110716.shtml>
9. Griffiths, “US-China Maritime Confidence Building,” p. 3; and Winkler, “Breaking News,” p. 18.
10. Winkler, “Breaking News,” p. 20.
11. Griffiths, “US-China Maritime Confidence Building,” p. 1.
12. There is a survey of other experience in the Afterword to David Winkler’s definitive history of the original INCSEA, *Preventing Incidents at Sea: A History of the INCSEA Concept* (Halifax, NS: Centre for Foreign Policy Studies, Dalhousie University, 2008). There is also a survey in the Appendix to Griffiths, “US-China Maritime Confidence Building,” 2010.
13. Griffiths, “US-China Maritime Confidence Building,” p. 22.

Lieutenant-Commander Robert Onions, An Unofficial Submariner in WW I

Patrick Onions L/S RCNVR

As we celebrate the 100th anniversary of the First World War, I’d like to share a story of my father’s brief experience on a submarine during the war. The accounts here are mostly taken from his memoirs and it should be understood that in places I have had to read between the lines and add some research I have done on my own.

At a very early age Robert (Bob) Onions was involved in the pioneering of the first ‘oil engine’ co-designed by

my grandfather (also Robert Onions) at Richard Hornby Works, an engine and machinery manufacturer in Lincolnshire, England. It should be noted that this was prior to Rudolph Diesel developing his engine but due to patent rights, Rudolph Diesel got acknowledged as the designer of the engine.



Lieutenant-Commander Robert "Diesel Bob" Onions.

While Hornsby was developing oil engine generating sets, Mirrlees Blackstone Engine Works developed, with the help of designers and engineers of the British Admiralty, a diesel engine that was directly coupled to a generator.

While Bob Onions was a trainee with Mirrlees, he took university courses to earn his degree as a mechanical engineer. During the years 1912-13, the production of submarine propulsion systems was being investigated by the Vickers Shipbuilding Co. and 17-year-old Onions was placed in charge of the test pit operations. Here I can only assume that Vickers had developed an enlarged version of the Mirrlees engine that became known as the Vickers Armstrong engine and it was this engine that Onions was overseeing.

Just before war broke out Vickers built an experimental submarine that was named *Nautilus*. This was to be a training submarine for the British Navy. As Onions had overseen the installation of its engines, later he had to go with *Nautilus* on its sea trials. The trials turned out to be a disaster. In Onions' words it was very unstable and its diving tactics were erratic, and it bounced along the bottom of the sea bed. It was also very stubborn when raising itself to the surface. After two days the crew was thankful to see land again.

When war broke out in August 1914 it was only natural that as a navy cadet Onions would join the navy as a volunteer reservist. As an engineer he became a member of the 'Special Service BR' on the engineering staff of the Royal Navy and was given the rank of Sub-Lieutenant.

The engineering staff was given the job of converting the steam-generating units used on the great battleships of the navy and converting them to diesel generating units. Sub-Lieutenant Onions was given the assignment of overseeing the installation of these units and giving instruction to the ship's engineers on their operation. It proved to be a very challenging experience. Not only did a lowly Sub-Lieutenant have to report to upper brass, but the ship's engineers gave a very cool reception to the idea. It didn't help that he was a reservist – a new branch in the navy – and as such was not considered a real navy man. Furthermore, trouble developed when the diesels wouldn't start. In most cases the reason for the problem was contaminated fuel. Whether this contamination was accidental or on purpose was never determined. It took supreme dedication on Onions' part to overcome these obstacles. (And because contaminated fuel was a continuing problem it led him to experiment and design a better fuel filter system.)

Grandpa Onions was requested to organize and set up the production of diesel engines for Mirrlees and for the navy. These diesels used a 'Blastair' injection system. While quite a reliable system it required the engine to run a compressor to supply air at a high pressure to atomize fuel for the injectors. Grandpa Onions thought that there had to be a better system so he designed and built a fuel injector pump – a type of which is still used on diesel engines today.

At this time Vickers was building a new F-class submarine. I believe Sub-Lieutenant Onions took the prototype injector pumps to the engineers at Vickers because, as was proven later, it reduced fuel consumption and improved the operation of a diesel engine. Thus Onions once again got involved with submarines.

In the spring of 1915, Britain launched an offensive against Turkey by landing troops at Gallipoli, the peninsula that runs down to the Mediterranean and forms part of the narrow channel of the Dardanelles that links the Sea of Marmara and the Black Sea to the Aegean Sea and the Mediterranean. Britain's attempt along with the French Navy to blockade Turkey was a failure. With the loss of two French warships and four British ships when they failed to clear the Dardanelles of mines, the job was turned over to submarines based in Malta.



Credit: Internet/Imperial War Museum

the crew of HMS **Grampas** cheering the British submarine E11 after a successful raid on Turkish defences at Gallipoli.

The submarines at Malta were under the command of Lieutenant-Commander Martin Naismith. Naismith was a frustrated commander as he had not been able to take part in operations around the Baltic because of mechanical breakdowns on his submarine E11. Now he was in Malta with more problems. Thus far, the submarines were not having much success breaking through the defences of the Dardanelles with the loss of all the French submarines and two British submarines. However, there were two submarines that made it into the Sea of Marmara. The Australian submarine AE2 commanded by Lieutenant Henry Stoker made it, and the submarine E14 commanded by Lieutenant Edward Boyle was successful and sank some shipping.

Using what information Boyle could give about the currents of the straits Naismith set off on his first trip through the Dardanelles and into the Sea of Marmara. The exploits of E11 read like fiction – it's too much to recount what crew members went through when mine cables scraped along the hull and submarine nets banged on the conning tower. After being submerged for 13 hours, the crew members were passing out for lack of oxygen and the smell of diesel fuel, and were soaking wet with condensation and perspiration. While successful in sinking several ships and blowing up the docks in the city of Constantinople, Naismith was lucky to get back to base

with a cracked clutch shaft and snaring a mine cable on his diving plane that he could not free until clearing the Dardanelles.

It was at this time that 'Diesel Bob' – a nickname that stuck with Onions throughout the war – was dispatched to Malta to make modifications to the engines on the E-series submarines. The modifications to the engines were of his own making so he was an expert on them. He was ordered to sail with Lieutenant Clifford Warren on E20. The voyage was not smooth. I remember my Father telling me that while cruising semi-submerged in rough seas, sea water got into the batteries causing chlorine gas to fill the submarine. It quickly incapacitated the crew and its officers. Apparently Sub-Lieutenant Onions was very groggy and nauseated but was able to surface the submarine into fresh air, reviving some of the crew. Despite being the only officer and with no navigating skills he was able to get E20 to Gibraltar. E20 was held at the navy dockyard at Gibraltar for repairs, and a thankful Onions continued to Malta on a navy picket boat under clear skies and calm seas.

Sub-Lieutenant Onions' arrival at the dockyards in Malta was not a happy one. While the base commander in Malta accepted the orders that Onions be posted there this was not the case with Commander Naismith who said no young engineer recruit was going to work on his engines. It took some time before Onions became friendly with Lieutenant Guy D'Oyly-Hughes the Engineering Officer and second in command on E11, and after this happened Naismith allowed Onions to look around. One of the main problems on the E-type subs was the 'clutching system' that disconnected and connected the engines to the electric motors when submerging. With D'Oyly-Hughes, Onions worked to improve the operation clutches.

During what he thought was a trial run of E11, Onions was ordered to stay still, and when E11 began bouncing around he realized not only that he had become the Second Engineer but also that E11 was on its second mission in the Sea of Marmara. After an agonising time submerged they surfaced into the Sea of Marmara to gulp large amounts of fresh air.

This was a highly successful trip with the sinking of the Turkish battleship *Hayreddin Barbarossa* in Constantinople as well as several cargo ships laden with war supplies. With the mounting of a gun on the foredeck E11 was able to sink several smaller craft with the gun. Stopping sailing craft and fishing boats the crew was able to restock with fresh fruit and vegetables. During this trip Naismith

learned that fresh water coming into the Marmara did not mix with sea water. This was an important discovery. Submerging to a layer of fresh water the submarine was able to lay still, with only a generator running to supply electric power, which prevented detection. This same tactic was used by German submarines in the Gulf of St. Lawrence during WW II.

The crew also learned to retrieve the torpedoes that had missed their mark by disarming them and retrieving them back through the torpedo tubes of the subs. Onions assumed the duties as Chief Engineer while D'Oyly-Hughes tried to figure out why their torpedoes ran erratic courses. They were close enough to shore that they could hear trains that were supplying troops to the Turkish army. D'Oyly-Hughes convinced Naismith to conduct a raid to blow up trestles on the rail line. Under cover of darkness Naismith manoeuvred E11 as close to shore as possible. Explosives were transported ashore on a make-shift raft. Although he was supposed to have acted alone, there must have been two or three volunteers to help D'Oyly-Hughes get the raft to shore. As well, after he was severely injured by the explosion, he must have had help getting back to the sub. Although he should have received hospital treatment as soon as possible he insisted that the mission be completed until all the torpedoes were used. D'Oyly-Hughes survived, but was not in a position to take on his duties so Onions resumed the position of Engineer Officer and second in command of E11.

After 47 days at sea and successfully negotiating their way back through the fortifications of the Dardenelles they returned to a hero's welcome. Naismith returned for a third trip but it proved to be too little too late. Ground troops had made a little or no advance up the Gallipoli Peninsula with a tremendous loss of life. German U-boats appeared in the Mediterranean which meant a further loss of ships; not surprisingly Britain withdrew from the campaign altogether.

Naismith was awarded the Victoria Cross for his efforts. The crew, and D'Oyly-Hughes in particular, was awarded the Distinguished Service Cross. As his only reward, Sub-Lieutenant Onions was promoted to a full Lieutenant. Upon his return to England Onions had to give repeated reports of how he ended up as an unofficial member of E11 until the whole affair became tiresome.

Back at his old job as troubleshooter he oversaw the operation of a steam turbine-powered submarine – K13. In early 1917 he missed reporting to the submarine by 10 minutes when on trials it hit a mine and sank. He was on another submarine, U3, when it sank and got stuck on a mud bank. All manner of stunts failed to dislodge it. With

crew passing out because of lack of air and the batteries almost out of power, finally turning the diesels over with compressed air gave enough 'grunt' to free the hull.

The navy and Lieutenant Onions continued to research and develop fuel and refueling, and Onions kept up his association with submarines. Once, while experimenting with refueling submarines at sea there was an explosion and fire broke out while he was aboard an oil tanker. People lost their lives but, while he was knocked out and received some burns, Onions was otherwise ok.

All in all it was an exciting time for Diesel Bob Onions. He retired from the navy with rank of Lieutenant-Commander. He immigrated to Canada in 1924 and was manager for Laurier & Lamb in Ontario and western Canada, a company which sold Ruston-Hornsby engines and generating sets, plus other British machinery, and he kept working on engines. When World War II broke out he was very disappointed when the Canadian Navy would not accept him as he was too old. He became the Chief Munitions Inspector in Ontario. He later joined Canadian Vickers Ltd. in Montreal as Manager of the Engine Shop and spent time taking Vickers-built frigates down the St. Lawrence River on their engine trials.

While not officially a submariner according to the Royal Navy, in my book he was a submariner in every sense of the word. 🍷

Are We Ignoring the Indian Ocean?


Major (Retired) Roy Thomas

In an article entitled "The Battle of the Indian Ocean 2039?" (CNR, Vol. 10, No. 1 (2014)), Major (retired) Roy Thomas wrote about how important it was for Canada to pay attention to the Indian Ocean as it will be a hugely significant area in the future. In this article (in note #7) he mentioned that following an enquiry by him, the Minister of National Defence sent him a letter dated 1 February 2013 saying that Canada "had made application for observer status at IONS [the Indian Ocean Naval Symposium]."

This summer he received another letter from the Minister of National Defence, dated 1 August 2014, which makes the note in his article in CNR no longer correct. The letter is reproduced here with Major Thomas' permission.

Dear Major Thomas:

Thank you for your most recent query about the Royal Canadian Navy (RCN), and specifically Canada's interests in the activities of the Indian Ocean Naval Symposium (IONS).



As my predecessor, the Honourable Peter MacKay, mentioned in his 1 February 2013 correspondence, although there are geographic restrictions on IONS membership, the RCN has considered applying for observer status in this multinational naval organization.

Through thoughtful consideration over the course of the last year, it was decided that Canada and the RCN would not seek observer status at IONS because of our increasing commitment to the Western Pacific Naval Symposium (WPNS), a similar influential and inclusive organization. Coincidentally, many of the key IONS navies with which the RCN currently maintains close bilateral relations are also status members of the WPNS.

Canada's commitment to a full and active participation in the WPNS is a clear signal to the 25 participating nations regarding our interests in support of international maritime security. We continue to foster closer bilateral relations with nations surrounding the Indian Ocean Basin on an individual basis but have, by necessity, focused our resources on what is considered to be the premier regional naval forum.

I would like to thank you for your patronage of the Canadian War Museum and your continued interest in defence relations.

Yours truly,
Rob Nicholson
Hon. Rob Nicholson, PC, QC, MP

The reply sent by Major Thomas to the Minister via email on 16 August 2014 is as follows.

Dear Minister

It is with regret that I read your letter to me of 1 August 2014 advising that you and the RCN were no longer attempting to obtain observer status at the Indian Ocean Naval Symposium (IONS). I have sent a correction to the *Canadian Naval Review* which recently published my attached article which quoted then MND Mackay's letter of 1 February 2013 to me saying that Canada and our Navy was seeking observer status in the IONS.

You will note in my attached article that I discovered *no* East African countries had sent naval officers for advanced staff or ASW training in Canada. Moreover Kenya and South Africa, where our only attachés are presently found in East Africa, are *not* naval officers nor is the Canadian officer posted as attaché to the Gulf states. I can only hope that the closer bilateral relations you mention developing

with IONS includes East Africa and the development of contacts on a personal basis. Incidentally the Western Pacific Naval Symposium (WPNS) has *no* African countries from any African coast as observers!

Indeed the WPNS list of members includes many countries with significantly larger naval forces closer to the Western Pacific than any the RCN could deploy. On the other hand, Robert D. Kaplan, who wrote *Monsoon: the Indian Ocean and the Future of American Power*, observed in March 2014 in a US government commissioned paper that the Chinese presence in the Indian Ocean was increasing even more. Yet the on-line information for the US African commitments indicates that the flagship of the USN for East Africa is the same multi-purpose depot/supply ship made famous at a Haiti dock in 1993 and which is based in the 'Med.'

I can only hope that you can bring Canadian naval eyes and ears to bear on the submarine activity which is increasing by all accounts in the Indian Ocean, route for the energy resources needed by most of the members of the WPNS. Do they have an Indian Ocean sub-committee??

Roy Thomas, Major (retired) MSC, CD, MA (RMC) 🇨🇦

What will Putin do Next?

Ken Hansen

It looks to me as though President Vladimir Putin and the Russian separatists in the eastern Ukraine have won this round. As Federica Mogherini, formerly the Foreign Minister of Italy and now the European Union's newly appointed head of foreign policy, said the prospect of Europe going to war to defend Ukraine against Russian aggression "simply does not exist."¹ Viewed by some as "suspiciously soft on Russia" and "lacking experience as a diplomat,"² Ms. Mogherini's comment nonetheless states the obvious with accuracy: the West will not go to war over Ukraine and its border dispute with Russia.

Putin has called for immediate talks on the 'statehood' of southern and eastern Ukraine. This territory, part of Russia for 350 years and transferred to Ukraine in the Soviet era, has a long and bitter history that colours the present.³ The key problem is that government officials are utterly corrupt and have fueled ethnic discord by their conduct. Under these conditions, neither Ukrainian nor ethnic Russian citizens trust their government to hold a proper referendum on a separation vote. The Russian



Credit: Leading Seaman
Romie Kinnie, Formation
Imaging Services

Family of crew members watch as HMCS Toronto departs for Operation Reassurance from Halifax, Nova Scotia on 24 July 2014.

ethnic majority in the eastern region and the seething contempt both sides hold for each other mean that separation following a vote of some sort, if it could actually be held, is a foregone conclusion. Eastern Ukrainians see conflict as their only option in response to what they call an illegitimate takeover of power by the protestors in Kiev. It really did not matter what illegal excesses former President Viktor Yanukovich and his government resorted to for retaining power. Both sides believe fervently in their version of events. Reconciliation is now very unlikely.

President Obama has already ruled out an American military response to the situation in Ukraine. Where the United States goes, so goes NATO. Meanwhile, Ukrainian President Petro Poroshenko is doing his best to convince the European Union (EU) that his fight is their fight by warning that “[t]here is a very high risk not only for peace and stability for Ukraine, but for the whole peace and stability of Europe.”⁴ This is quite a stretch. So long as the independence movement limits itself to consolidating its hold on the eastern portions of Ukraine and Crimea there will not be a major international war.

The big question is what will Putin do next? When the clandestine move into Crimea happened, the governments of the Baltic states and Poland became understandably nervous about how the Russian President views them.⁵ Do the large Russian ethnic communities within their borders make them the next objects of his ambition? What goal would inspire the Russians to attempt a similar gambit in Estonia, for instance?

The governments of Poland, Estonia, Latvia and Lithuania are far more credible and effective than that of Ukraine. The economic and social reforms implemented in these countries after the fall of the Soviet Union have been extraordinarily effective – some observers have gone so far as to call them an “economic miracle.”⁶ It seems unlikely that the deep societal divide that stemmed from

inefficient and corrupt government in Ukraine will arise in any of the other former Soviet bloc countries now inside NATO. If Putin wishes to carve out the Russian communities from these countries, he will have a much harder time distinguishing them and tempting them with the ‘benefits’ of citizenship in a greater Russian Federation. They are doing fine where they are right now.

Following six straight quarters of economic downturn, some observers believe that the sanctions are already taking effect on Russia. More will undoubtedly follow, but they will take a significant amount of time for their full effects to be felt. Paul Gregory, Research Fellow at the Hoover Institution at Stanford and the Cullen Professor of Economics at the University of Houston, cites Russia’s need to finance half of its capital requirements on foreign money markets as a strategic vulnerability, one that played an important part in its 2013 deeply discounted gas deal with China.⁷ Financially and economically, Russia is in no position for a wider conflict with NATO. Neither can it argue convincingly that life with Russia will be better economically than with the Poles or Estonians.

More importantly, Russia’s military is in the midst of a major overhaul and is unlikely to be ready for major operations.⁸ The Russian rank structure was very top heavy with flag-rank and other upper echelon officers. To correct this problem, nearly 700 of the 1,200 generals in the Russian military were fired when the military downsized between 2005 and 2010. There were commensurate reductions at all levels down to the bottom, where only the most junior of officers were in short supply. The same was true in the enlisted ranks. Among other major changes, the army has been restructured into brigades, rather than divisions, as the basic operational unit but much remains to be done.

Probably of greatest significance has been the move to one-year conscripts for the vast majority of its basic soldiers. Although a large amount of money has been poured into new equipment and weapons, it has not translated into a general increase in combat readiness. While some units are considered to be of ‘elite’ status, the majority of the army remains in poor condition. Putin is dangerous militarily against a weak opponent like Ukraine but he has no staying power for a tougher opponent, or their allies.

If for some reason a large conflict against NATO did erupt, Putin could feel compelled to fall back on to nuclear deterrence forces in the event of a probable military collapse on the battlefield. He has already threatened Ukraine with nuclear targeting should it join NATO and accept American anti-missile systems on its territory.⁹ Recently, Putin said Moscow doesn’t want or intend to wade into



any “large-scale conflicts,” but he quickly added “I want to remind you that Russia is one of the most powerful nuclear nations.”¹⁰ This comment, offered so blithely, could indicate how little faith the Russian President actually has in his armed forces.

The best course of action would be for Putin to bide his time and consolidate his gains, such as they are. Crimea today is not the strategic prize that it once was. The Black Sea is operationally cut off and contained by NATO. No amount of Russian ambition to increase the size of the Black Sea Fleet and improve the facilities for its operation at Sevastopol can change the strategically limiting facts of geography.



Credit: MS Peter Reed,
Formation Imaging Services
Halifax

HMCS *Toronto* fires her 57mm gun at a training target in the Mediterranean Sea on 24 August 2014 during *Operation Reassurance*.

Crimea holds great symbolic value for President Putin. His visit to Sevastopol on the anniversary of the end of The Great Patriotic War was clearly designed to stir emotional attachments to both the place and the fleet. The problem is that Putin is not a navalist and has little grasp of maritime strategy. There are several glaring problems with his ambitions to promote Russian interests in the Black Sea and beyond by means of sea power. Russia will remain cut off from ocean access to the Mediterranean and Atlantic from its three principal western bases – Sevastopol in Crimea, the Leningrad Naval Base in St. Petersburg on the Baltic Sea, and Severomorsk on the Barents Sea. NATO has more than enough combat power to ensure that a major offensive will be checked. In the east, Russian access to the sea is confronted with the prospect of growing US Navy power and a strengthening alliance with Japan and South Korea. The Russians are thoroughly contained and, because of their maritime weakness, are very vulnerable should sanctions turn into embargoes against strategic imports.

If this was a smash-and-grab strategy, it is likely to end up costing Putin more than it is worth. The gambit to secure

Crimea was successful but it sparked nationalistic ambitions among ethnic Russians in eastern Ukraine. Once alight, the patriotic flames spread quickly to areas and groups that were never part of Putin’s calculus. Seeing the smoke of potential conflict, NATO’s military forces moved to reinforce and reassure their nervous members on the borders with Russia. While Putin’s domestic supporters cheer his accomplishments, saner heads are seeing the military preparations by the West as an ominous warning of resolve. Corruption is also a major problem for Putin’s government and it is causing domestic unrest, just as it did in Ukraine.

The economic, social and military costs of Crimea are piling up and will empower the opposition inside Russia. Rather than keeping Ukraine out of NATO, once the eastern portions have separated it is likely that Putin’s support for the separation of the Russian-controlled areas will drive the remainder of Ukraine into the alliance. As the spectacularly successful transformations of Poland and the Baltic states show, there is much to be gained by Ukraine if approached correctly. But this will only occur if the Ukrainians can overcome the culture of corruption that has plagued all their governments of the recent past.

For Vladimir Putin, it is likely the biggest conflict resulting from the annexation of the ancient naval base in Crimea and the separatist movement in adjacent areas of eastern Ukraine will be internal to Russia, rather than external. He should enjoy the glow of success now. The future will be much more challenging than the relatively easy ride he has had to this point. 🍷

Notes

1. Nick Squires, “Military Option on Ukraine ‘Does Not Exist,’ Says New EU Chief,” & *e Telegraph*, 1 September 2014.
2. Tom Kingston, “Who is Federica Mogherini: The New Woman in charge of EU foreign policy?” & *e Telegraph*, 31 August 2014.
3. Dimytri Babych, “Russia and Ukraine, Painful Rift with History.” *RAINOVOSTI*, 26 August 2014.
4. Kevin Rawlinson, “Ukraine President Warns Europe Nearing ‘Point of No Return,’” & *e Guardian*, 31 August 2014.
5. Matt Ford, “Russia’s Seizure of Crimea is Making Former Soviet States Nervous,” & *e Atlantic*, 1 March 2014.
6. Kristina Maslauskaitė and Liva Zorgenfeija, “Economic Miracle in the Baltic States: An Exemplary Way to Growth?” & *e Baltic States in the EU: Yesterday, Today and Tomorrow*, Studies and Reports No. 98, Notre Europe, Jacques Delors Institute, July 2013. For Poland, see Harmut Lehmann, “The Polish Growth Miracle: Outcome of Persistent Reform Efforts,” *IZA Policy Paper No. 40*, April 2012.
7. Paul Roderick Gregory, “Western Sanctions and Rising Debts are Already Strangling the Russian Economy,” *Forbes*, 28 August 2014.
8. Kaspars Mazitans, “Russian Armed Forces Military Reforms and Capability Developments (2008-2012),” *Baltic Security and Defence*, Vol. 16, No. 1 (2014), pp. 5-45.
9. Bruno Waterfield, “Russia Threatens Nuclear Attack on Ukraine,” & *e Telegraph*, 12 February 2008.
10. Greg Botelho and Laura Smith-Spark, “You’d Better Not Come after a Nuclear-armed Russia,” *CNN*, 30 August 2014.

Dollars and Sense: CFDS(R): Renewing the Canada First Defence Strategy

Dave Perry

Work has been ongoing for several years, with varying degrees of activity and intensity, to update the Canada First Defence Strategy (CFDS). Unable to determine if this would involve a policy renewal, reset, or refresh, for a long time the initiative was simply titled CFDS(R). With the 2013 Speech from the Throne directing that the policy be renewed, efforts to reformulate Canada's defence policy are now more active.¹ While at one point it was hoped that the policy would be renewed by the spring of 2014, the process has been delayed over the summer and could now stretch into winter 2015. Ahead of this policy renewal, it is worth speculating about what might emerge in terms of new policy direction.

But first we should note what the original CFDS contained. It was comprised of two parts. The first part was an unusually detailed, long-term commitment to a future defence force structure and budget envelope. CFDS contained a 20-year funding line, as well as significant detail about how the budget would be allocated among its major components, with a very specific itemization of the major capital equipment procurements.

The second part was the overarching defence policy, which was unusual for its lack of detail. Past White Papers indicated more specifically the activities in which the Canadian Armed Forces would be expected to engage at home and abroad. CFDS, however, only stated the three roles the Canadian military has played since 1945 (defend Canada, defend North America, and contribute to international peace and security), and articulated six core missions that the military has normally provided (conduct daily domestic and continental operations, support a major event in Canada, respond to a terrorist attack, support civilian authorities during a crisis in Canada, lead or conduct a major international operation for an extended period of time, and deploy forces elsewhere in the world for shorter periods). Aside from the direction that Canada, and specifically the Arctic, would be the first defence priority, there was little strategic prioritization.

Six years later the force structure aspects of CFDS are more in need of renewal than the overarching policy construct. Given the generic nature of policy articulated in CFDS, there is little in the current strategic landscape that could not be encapsulated within the CFDS three roles and six missions, although greater specificity would certainly be



A Royal Canadian Air Force CP-140M Aurora takes off on a training mission from Marine Corps Base Hawaii during the Rim of the Pacific (RIMPAC) exercise on 15 July 2014.

useful in shaping defence priorities. On the force structure side, however, much has changed. The plan was predicated on continuous, real growth in the defence budget, but budget cuts and freezes and procurement delays have left the Department of National Defence with less purchasing power than it had before CFDS was printed. Closing the gap between the force structure outlined in 2008 when the planned budget for 2013/2014 was \$21 billion and the structure affordable within an actual budget of around \$17.4 billion is the key challenge facing the department.²

Some steps have been taken to close that gap by making adjustments to the planned force structure. These include capping the expansion of the Regular Forces at 68,000 and the Reserves at 27,000, cancelling the Close Combat Vehicle project, and delaying the replacement of the Aurora long-range patrol aircraft. Combined, these measures would save around \$400 million a year. As well, the planned Defence Renewal initiatives could save DND between \$528-845 million by 2018/2019, but so far no details have been released to indicate how the work is progressing or whether the stipulated savings are realizable.³ The measures taken to date combined with the Defence Renewal measures planned might narrow the current \$3.6 billion gap between the desired ends and means available by around \$1 billion a year. However, this still leaves a major gap – to put the remaining gap in perspective, it exceeds the annual cost of operating and supporting the navy's surface fleet.⁴ So far, the bulk of this difference has been met by reducing operational readiness and training, and delaying procurement.



Credit: US Army Specialist Steven Young

Jumpers from the Canadian Special Operations Regiment, Green Berets of 7th Special Forces Group (Airborne) and Para-rescue Airmen from the Air Force Special Operations Command begin exiting a RAF C-130 during a parachute jump at Hurlburt Field, Florida, 25 April 2013.

To date, government statements indicate that the primary focus of the CFDS renewal will be less on closing that gap than on rebalancing the defence organization to make sure that threats to Canada are addressed within the current budget. The two emerging threats identified specifically in the Throne Speech are terrorism and cyber-attack, indicating that greater priority will be afforded to Cyber and Special Operations Forces (SOF) capabilities, and likely the space and intelligence assets supporting them. Whereas the CFDS plan articulated force structure investments in the air, land and maritime environments only, the renewed CFDS will likely extend to SOF and other enabling capabilities. In addition, given the extensive hearings by both Parliamentary defence committees last winter regarding ballistic missile defence, it seems likely that participation in the American continental system will be revisited. Allocating the people and funding to take on new initiatives will be a challenge given that efforts to find both internally have been underway without much success since 2010.

The June 2014 Defence Acquisition Guide, which contains DND's list of all significant defence projects over the next 20 years, includes multiple projects to address these new emerging threat areas. But, as the guide identified, the majority of the 208 projects do not yet have government approval. Work is currently underway to prioritize the projects now that DND has received long-awaited approval of its Investment Plan. This, along with the Defence Procurement Strategy announced February 2014 is intended to get the procurement system moving after a year in which the lack of Treasury Board approval for DND's long-term investments exacerbated procurement delays. CFDS renewal would hopefully play a guiding role in prioritizing the list of projects.

In addition to identifying force structure priorities, there will likely also be some updating of the actual policy language. The government's rhetoric in response to Russian actions in Crimea and Eastern Europe make it hard to believe that the policy renewal will not account for events in Ukraine. This suggests that NATO, and particularly its collective defence provisions, may assume a more prominent place in the policy renewal. This would reverse

some recent Canadian actions, such as the withdrawal from the NATO Airborne Warning and Control System (AWACS) and Alliance Ground Surveillance (AGS) program, which have weakened Canada's commitment to NATO.

How this will balance with recent increased military diplomacy, engagement, operations and investment in Latin America and Asia remains to be seen. The government has developed an Engagement Strategy for the Americas, and activity in Asia suggests a similar strategy may be emerging for the Asia-Pacific region. While the government's military engagements in the rest of the world have primarily been contingency responses – to natural disasters for example – engagements in Latin America and Asia-Pacific have been more strategic in nature. This has been well below the scale of the American rebalance to the Pacific but has been a persistent effort nonetheless. Given recent Russian activity it will be interesting to see whether an imperative to redirect focus to Europe will affect these efforts.

A renewed defence policy is needed to re-align DND's current fiscal framework with strategic direction. Doing so will require tough choices to put the defence organization back on a sound footing. Let's hope the process proceeds quickly and the results are made public. 🇨🇦

Notes

1. Speech from the Throne, "Seizing Canada's Moment," Ottawa, 16 October 2013.
2. David Perry, "The Growing Gap Between Defence Ends and Means," Ottawa, CDA Institute, 2014. These are accrual figures, not planned spending. The initial planned figure for 2013/2014 was \$21.7 billion, but the author revised this estimate to account for the changes brought about by the creation of Shared Services Canada and the Communications Security Establishment Canada.
3. David Perry, "Doing Less with Less," Ottawa, CDA Institute, 2014.
4. Public Works and Government Services Canada, "Backgrounder on the NSPS, Year 2, A Status Update, Through Life Costs for DND Projects," available at <http://www.tpsgc-pwgsc.gc.ca/app-acq/sam-mps/ddi-bkgr-10-eng.html#no8>. The NSPS estimate for the through-life costs of the new CSC estimated 30 years of personnel, operations and maintenance to be \$64 billion, or roughly \$2.13 billion annually.

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A View from the West: Responding to the New Anti-Ship Cruise Missile Threat

Daniel Baart

Anti-ship missiles are increasingly sophisticated, deployed from a wider range of platforms, and integrated into naval doctrines in more aggressive ways than in the past. Decades of proliferation have meant that these weapons have spread to most navies as governments seek cost-effective means of deterring or threatening enemy warships. China, in particular, has made the anti-ship cruise missile (ASCM) a central part of its naval warfare plans, and has integrated these weapons into nearly every conceivable launch platform across its armed services. Commentators have expressed concern that the growing sophistication and proliferation of missiles and launchers has greatly increased the risk to the US Navy (USN) and to forces that have not developed these capabilities.

The modern ASCM, typified by weapons like the jointly developed Russian-Indian BrahMos, is designed to travel at supersonic (and soon hypersonic) speeds mere feet above the surface of the ocean. Faster speeds and lower altitude terminal phases result in greatly reduced detection and reaction times, giving onboard systems and personnel seconds to deploy effective countermeasures. These new, extremely high-velocity missiles often feature advanced target seekers, terminal-phase manoeuvrability and data links that allow them to receive mid-course targeting adjustments, all of which make it more difficult for targeted ships to react.

The element of surprise lies at the heart of China's emerging ASCM doctrine which was recently analysed in a report by Dennis Gormley, Andrew Erickson and Jingdong Yuan.¹ The Gormley Report suggests that the People's Liberation Army Navy – along with supporting ground and air forces – will seek to engage enemy surface formations with aggressive, long-range, multi-axis saturation attacks designed to overwhelm shipboard sensors and countermeasures, in similar fashion to the Soviet Navy's 'first salvo' concept. Such tactics will be well served by the degree to which China has integrated ASCMs across its armed forces, including on significant portions of its surface and subsurface fleets, as well as its primary naval aviation assets.² These diverse assets will draw on China's significant reserves of new and old missiles to launch attacks in mixed waves designed to overwhelm an enemy's ability to deploy effective defences.

Commentators suggest that these mixed waves are designed to force defenders to expend their finite supply

of countermeasures, like interceptor missiles, close-in weapon systems, or flares and chaff, on defeating waves of obsolete missiles, allowing later salvos of more advanced weapons to score hits. However, Wayne Hughes, a preeminent US expert on naval tactics, has argued that interceptor missiles and other 'hard-kill' measures (those designed to destroy, rather than distract or dissuade incoming missiles) are not as effective as sometimes believed. Based on studies of roughly 300 anti-ship missile attacks throughout history, Hughes' research suggests that nearly 65% of missiles fired at defendable (though not necessarily alert) warships hit their target.³ He believes that these numbers are likely to increase as missile technologies improve.

The 'soft-kill' alternative in the form of electronic countermeasures and chaff blooms was much more effective, although even fully alert crews were only successful 75% of the time in addressing enemy missiles. If Hughes is right that most modern surface combatants are put out of action by as few as two hits and that the advantage is swinging towards the attacker, the prospect of high-intensity salvo attacks with high-speed sea-skimming and manoeuvrable missiles should be cause for concern for navies everywhere.

One can, of course, focus too heavily on the countermeasures or missiles carried by warships, as this ship-centric view ignores the range of possibilities available to neutralize the ASCM threat. In reality, most commanders would prefer not to dispatch warships to areas within range of known ASCM sites, and shipboard countermeasures are generally a last resort. As Hughes notes, the best tactic is to launch the first strike which takes the enemy by surprise, and renders him unable to respond.

Some commentators have expressed concern about the USN's response to the threat posed by ASCMs, a threat which dates back to the days of the Cold War. Considerable energy has been expended – sometimes literally, in the case of electromagnetically propelled railguns and laser systems – in developing a means to counter a range of emerging surface warfare threats, including ASCMs, while still maintaining the ability to deliver a first strike. It is important to note, however, that this response, while it does include the development of new anti-ship missiles by the United States and various European states, does not involve the full-scale adoption of similar weapons in

Table 1. Selected Missiles in Service with the People's Liberation Army Navy

Type	Launch Platform(s)	Range	Terminal Phase	Notes
SS-N-22 Sunburn/ 3M80MVE Moskit (and variants)	<i>Sovremenny</i> -class DDG, air launch capable	240 km	Mach 2.5 @ 7 metres	Very large with 300 kg warhead, sea-skimming, data link and inertial and active radar guidance.
SS-N-27B Sizzler	<i>Kilo</i> -class submarines	220 km	Mach 2.9 @ 5 metres	Variants for ship and air launch featuring satellite data link and extended range are reportedly being developed.
YJ-62A (C-602)	Type 052 DDGs, shore batteries	400 km	Mach 0.9 @ 7 metres	Subsonic, but features advanced seeker and data link. Longer range variant under development.
YJ-8 (C-802) and variants	Ship, aircraft, shore	Up to 250 km	Mach 0.9 @ 7 metres	Primary PLAN ASCM, said to be comparable to Exocet, though subsonic.

Sources: Gormley, Erickson and Yuan, *A Low-Visibility Force Multiplier*; and Jane's Information Group

similar roles and quantities as potential rivals.

While the USN has long recognized the threat posed by ASCMs, its own efforts at developing new weapon systems seem to suggest a disinterest in employing similar capabilities. Indeed, various supersonic anti-ship missile programs have been cancelled in recent years, and the US Defense Advanced Research Projects Agency's (DARPA) current project, the Long Range Anti-Ship Missile (LRASM), will be subsonic, like the Harpoon family of missiles currently in service with more than two dozen world navies. This is at a time when foreign weapon designers seem to regard higher terminal speed as the defining characteristic of a fearsome weapon.

The US decision to forgo developments of supersonic missiles is partly due to the inherent expensiveness and inflexibility of missiles. China's confidence in the saturation strike model is grounded in the knowledge that it can produce missiles at a lower cost than its potential rivals (up to 30% less), and at a fraction of the cost of the missiles and countermeasures designed to destroy them.⁴ Recognizing this reality, the USN has begun developing systems like railguns and long-range guided shells that can fulfill various roles, including in anti-surface warfare, as well as in anti-air and anti-missile defence. Preliminary investigations suggest that the railgun will be capable of firing a shell more than 100 nautical miles at seven times the speed of sound. It is hoped that this weapon will provide the US Navy with a more cost-effective means of engaging incoming targets with air-burst shells instead of highly expensive interceptor missiles like the USD \$4 million Standard Missile 6 (SM-6), or the \$800,000 Evolved Sea Sparrow. Studies suggest that the cost of further missile development will only increase as their performance increases, while the railgun promises a huge performance leap at a fraction of the cost of developing less adaptive new supersonic missiles.⁵

Many commentators have noted that long-range precision missile strikes, particularly against moving targets, require significant reconnaissance, targeting and command and

control architecture. The missiles themselves are not fully effective without the systems that direct and track them. It remains to be seen whether any country, and China in particular, can coordinate dispersed assets, including submarines, shore batteries and aircraft, to permit multi-axis saturation strikes of the intensity and duration that could pose a serious threat to the layered defences of a task force operating several hundred nautical miles from land. A task force would also include significant scouting and early warning air assets, which would identify and neutralize the platforms and communications infrastructure needed to coordinate and mount these attacks.

Increasingly sophisticated anti-ship cruise missiles represent a significant threat to surface fleets, although we should not assume that they could be easily deployed in long-range massed salvo attacks against alert and well-defended formations of networked warships. Wayne Hughes' warning regarding the ascendance of the offensive capability in naval warfare, in the form of new missile technologies, seems highly accurate. The proper response to this growing threat is not, however, to mirror the capabilities of likely adversaries, but the development and implementation of a range of technological and doctrinal responses that prioritize tactical flexibility and the capacity to respond to the range of threats present in naval warfare. 🇺🇸

Notes

1. Dennis Gormley, Andrew Erickson and Jingdong Yuan, *A Low-Visibility Force Multiplier: Assessing China's Cruise Missile Ambitions* (Washington: National Defense University Press, 2014).
2. Vitaliy Pradun, "From Bottle Rockets to Lightning Bolts: China's Missile Revolution and PLA Strategy Against US Military Intervention," *Naval War College Review*, Spring 2011, pp. 7-38.
3. Wayne Hughes, *Fleet Tactics and Coastal Combat* (Annapolis, MD: Naval Institute Press, 2000).
4. Mark A. Stokes, *China's Strategic Modernization: Implications for the United States* (Carlisle, PA: US Army War College, 1999). Cited in Gormley, Erickson and Yuan, *A Low-Visibility Force Multiplier*.
5. Lieutenant Maxwell Cooper, USN, "The Rail Gun Advantage," *US Naval Institute Proceedings*, December 2011, pp. 60-64.

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Warship Developments: New Royal Navy Aircraft Carriers

Doug Thomas

On the 4th of July 2014, the Queen named the first of two new Royal Navy aircraft carriers in Rosyth, Scotland. A bottle of Islay single malt whisky was smashed on the hull of the 65,000-ton HMS *Queen Elizabeth*. Addressing the audience, the Queen said the “innovative and first class” warship, the largest ever to be built in the UK, ushered in an “exciting new era.”

Six shipyards in the UK including Tyne, Rosyth and Appledore have been involved in building parts of the carrier. More than 10,000 people in over 100 companies have worked on HMS *Queen Elizabeth*, which has been beset by construction and design delays. The estimated cost of the vessel and its sister ship is £6.2bn, well over the initial projected cost of £3.65bn.

The warship – the largest ever built in and for the UK – is 920 feet long and will embark a mission-tailored air group of 40 aircraft composed of a mix of F-35B Lightning II Short Take-Off, Vertical Landing (STOVL) jet aircraft and various helicopters depending on the mission. The ship’s complement is 679, but there will be a total of 1,600 bunks available to accommodate air group personnel and a company of 250 Royal Marines. It is likely that HMS *Queen Elizabeth* will become operational in 2020 after completion of lengthy first-of-class trials, followed shortly thereafter by HMS *Prince of Wales*.

Many components of *Prince of Wales* have been completed or are under construction, and assembly will commence later this year now that the first ship has been floated out of the dock. The 4th of July naming ceremony came five years after the first steel was cut on the vessel and 33 months after the first section entered the dry dock at Rosyth for assembly.

These carriers will be easy to recognize at sea with their interesting distinguishing features. In particular they have a large bow ramp to facilitate short take-off – much less fuel is used compared to vertical take-off – and the unusual and distinctive design feature of two island superstructures, one for ship operations and the other to control air operations.

Another interesting feature is the integrated electrical propulsion system. This type of propulsion system has been fitted in HM Ships *Albion* and *Bulwark* but it is much more complex in the carriers. There are six generators – two large gas turbines and four large diesels



HMS *Queen Elizabeth* following her naming ceremony conducted at Rosyth Dockyard, 4 July 2014.

– which produce power for sensors, weapons and hotel services and also for four electric motors to drive the ship to speeds in excess of 25 knots. Nuclear power (used in USN *Nimitz*- and *Ford*-class carriers) was considered at an early stage of design development and rejected as too expensive.

Munitions and ammunition handling is accomplished using a highly mechanized weapons handling system, the first naval application of a common land-based warehouse system. The system moves palletized munitions from the magazines and weapon preparation areas, along tracks and employs several elevators. It is anticipated that this system will speed up delivery and reduce manning requirements.

Self-defence armament is limited to automatic 20 mm and 30 mm cannons. There are no surface-to-air missile systems such as the Sea Dart system originally fitted in the *Invincible*-class carriers. The principal protection for these ships will come from *Daring*-class guided-missile destroyers.

The carriers will be equipped with the F-35B Lightning II, Joint Strike Fighter. This multi-role fighter is intended to replace a broad range of USN and USAF aircraft, and also to be sold to many US allies, including Canada and



Credit: Lockheed Martin by Layne Laughter

An internal bay test release of a GBU-12 500lb Paveway II bomb from an F-35B. Also visible is an external AIM-9 Sidewinder and an AIM-120 AMRAAM, 3 December 2012.

the UK. The UK will acquire 150 STOVL variants of the F-35, which can be employed ashore or from the two new aircraft carriers. There have been concerns from all countries planning to acquire this aircraft about delays in production, rapidly rising costs, and also the fact that the F-35 has only one engine. It may well be that this will have a negative impact on the number of aircraft that will be purchased – which will increase unit costs even further. Nevertheless, it will be the principal component of British carrier air groups for many years to come, and combat operations would likely see 24 F-35Bs embarked.



Credit: Wikimedia Commons/UK MoD

HMS Albion is pictured operating with Dutch Royal Marines.

A wide range of helicopters can be operated from the ships, including Chinooks and Apaches for amphibious operations. During power projection operations, the F-35s would be complemented by variants of the Merlin (similar to the RCAF's Cormorant), probably nine anti-submarine warfare and five airborne early warning Crowsnest aircraft.

Conclusion

The 2010 British Strategic Defence and Security Review (SDSR) determined that only one carrier was affordable, but penalty clauses in the contract meant that cancelling

the second carrier would be more expensive than building it. It was thus decided that *Prince of Wales* would be built and then either mothballed or sold. A September 2014 statement by UK Prime Minister Cameron that HMS *Prince of Wales* will be retained for service in the Royal Navy rather than sold, is welcome news. Retention of two carriers will ensure that one will be available at all times while the other is at a reduced state of readiness or in refit.

It has taken a long time to go from design concept and Treasury approval, to naming the first ship of the class. It will be at least six more years before that ship will be fully operational. However, the projection of air power at, and from, the sea is an important capability for the Royal Navy. In order to ensure this is possible, it really requires at least two carriers so that one can be available at all times. If the UK is to be taken seriously as a world power, certain defence components are necessary: (1) the nuclear strategic deterrent currently resident in the *Vanguard*-class ballistic missile submarines; and (2) organic air power at sea which provides great flexibility and a range of options to the British government.

Argentine belligerence regarding the Falkland Islands increased after the paying-off of the carrier HMS *Ark Royal* in 1978, and reached a fever pitch a few years later with the announcement of extensive defence cuts, the planned sale of the new small carrier HMS *Invincible* to Australia and paying-off of the amphibious vessels *Intrepid* and *Fearless*. If Argentina had not 'jumped the gun' in invading the Falklands, there would not have been sufficient RN resources to secure the islands' release. In 1982, however, the British naval task force, built around the not-yet-transferred carrier *Invincible* and HMS *Hermes*, had just enough capability to defeat Argentine forces and pry the islands back from the grip of the Argentine junta. The lessons of the Falklands War regarding the importance of organic naval air power must not be forgotten. Once lost it is very difficult to regenerate. 🇬🇧

Book Reviews

At What Cost Sovereignty? Canada-US Military Interoperability in the War on Terror, by Eric Lerhe, Halifax: Centre for Foreign Policy Studies, Dalhousie University, 2013, 405 pages, ISBN 978-1-896440-72-9, \$35.00

Reviewed by Major Chris Buckham

Nation-states throughout history have made concerted efforts to define themselves in specific terms in order to ensure that they retain both a unique place within the international community and a common baseline within their nations from which to develop their culture. These efforts manifest themselves in many ways; military independence being one of them. However, as the cost of maintaining a military capable of standalone international operations has spun beyond the financial affordability for many states, coalitions and alliance-based operations and development have become the norm. With this evolution, the line between national independence and reliance has become progressively less clear.

Dr. Lerhe addresses this perception in his work looking at whether the advent of interoperability with the United States has or has not undermined Canada's military and, by extension, national independence. The sensitivity most Canadians hold in this regard given Canada's respective size and geographic location compared with the United States, makes this a very relevant and timely topic of study.

There are several themes that permeate Lerhe's work such as the traditional underlying suspicion of the military held by the Canadian media, intelligentsia and some Canadians, suspicion of the military's relations with the government and civil society, and a willingness to perceive any action by the government as capitulating to diplomatic pressures from the United States. In this book, Lerhe examines a difficult subject because the discussion among Canadians on this topic is fraught with emotion and he challenges their perceptions with the facts as presented.

Lerhe commences his study with a look at a cross section of existing literature on what defines sovereignty (in itself a challenge). He then develops a matrix by which examples may be evaluated for their impact first upon internal and external levels of sovereignty and second by their impact within those two criteria. His method of evaluation, as much as possible, removes subjectivity from the equation and better allows for a factual, unbiased determination.

Following an explanation of what the issue is and how he will approach it, he provides a comprehensive historical analysis of Canada's military and governmental approach to interoperability from the turn of the 19th century to modern times. He then reviews the major works on the issues with a view towards establishing the breadth of academic, governmental and military opinion on the subject. In order to determine which (if any) of these views is correct he then evaluates a series of recent controversial issues surrounding the war in Afghanistan including: Canadian detainee policy; Canada's decision relating to *Operation Iraqi Freedom*; rejection from ISAF 2001-2002; Task Force 151; and Canada's response to 9/11.

In each case, Lerhe presents the background to the subject, how it affected Canadian decision-making and how the issue was perceived in the Canadian media and intelligentsia. Once this baseline has been established, Lerhe undertakes a detailed analysis of senior Canadian government and military decision-making, and the expectations and actions of US senior governmental leadership and diplomatic staff. He also examines what was made available to the media and public at the time, and the international conventions (i.e., the Geneva Convention) against which the decision-making was taken. Finally, he reviews the understanding and comprehension of these issues by contemporary academia and the media in their analysis and presentation of the subjects. He utilizes extensive interviewing of the key players involved, detailed review of previously classified diplomatic communiqués from all parties, and legal analysis of what Canada's international obligations entail. And finally he examines these findings against the control measures that he defined earlier in his book to determine the impact on sovereignty (both internal and external).

Lerhe's work is balanced and fair. He makes a concerted effort to acknowledge those who hold differing perspectives and, rather than dismissing them out of hand, he incorporates their opinions with a view to upholding or disproving them. I found his analysis to be comprehensive and based in fact drawn from first-hand sources. Where he must draw conclusion from conflicting perceptions he readily acknowledges this and does his utmost to retain his impartiality.

At What Cost Sovereignty? is a fascinating read and a laudable study into the challenges that not only interoperability presents but also how preconceived notions, biases and perceptions of media and academia can affect opinion and policy. It is a very readable and engaging book and one that media, historians, government policy-makers and senior military personnel should study. 📖

At What Cost Sovereignty? Canada-US Military Interoperability in the War on Terror, by Eric Lerhe, Halifax: Centre for Foreign Policy Studies, Dalhousie University, 2013, 405 pages, ISBN 978-1-896440-72-9, \$35.00

Reviewed by Paul W. Bennett

Conventional studies of Canada-US military relations leave the distinct impression that cozying-up to the Americans is a one way, downhill street further compromising Canada's national sovereignty. Piggy-backing on US-led NATO ventures in the 'war on terrorism' would seem to be the most recent example of the travails of a Middle Power operating within limits still defined by its superpower neighbour. Two influential books – Michael Byers' *Canadian Armed Forces Under U.S. Command* (2002) and Janice Stein and Eugene Lang's *Ale Unexpected War* (2007) – reinforce and perpetuate the persistent image of Canada's status as a de facto military satellite of Washington.

If this popular view represents the new orthodoxy, it now faces a stiff challenge from a most unlikely source. A retired Commodore-turned-defence-analyst, Eric Lerhe, has poured over the actual documents, applied a rare tenacity, and come up with a decidedly different assessment. In his new book, *At What Cost Sovereignty?* the 36-year veteran of the Canadian Navy delves deeply into situations in the early 2000s and concludes that, on the ground and at sea, Canadian sovereignty was never really compromised.

Commodore Lerhe addresses the "highly polarized debate" over the inherent risks of what is termed "Canadian military interoperability" with the United States. Concentrating on the period from 2001 until 2006, he carefully dissects the Canadian role in six critical situations: the 11 September 2001 attacks; the 2002 mission to the International Security Force in Kabul; Canada's 2003 deployment to Kandahar; the decision to reject participation in the Iraq War; Canadian leadership in the Coalition Naval Task Force 151; and Canada's 2005 return to Kandahar. With the acuity of a military specialist and an unfailing eye for detail, he proceeds to weigh the "claims of lost or reduced sovereignty."

Turning the previous critical claims into hypotheses, Lerhe adopts Stephen Krasner's typology of sovereignty and isolates five situations where Canada's *external* sovereignty might have been violated and two instances where *internal* sovereignty was breached. Applying an ingenious framework for analysing the identified Canada-US issues and disputes, he tallies up the alleged losses and gains in

sovereignty, citing (in each case) the most authoritative documentation. Contrary to Byers and Stein/Lang, he concludes that "Canada's military interoperability with the United States had little direct impact on Canadian sovereignty" (p. 356).

In the six cases, Lerhe found that Canada experienced "modest external sovereignty costs" but they were not the consequence of close joint military operations. They were, in his view, more the result of power imbalance and resource factors rendering Canada "dependent upon US support." When it came to *internal* sovereignty costs, he drew a sharper line finding no actual examples of either "excessive US influence" or "disloyal Canadian officials" in any of the military situations.

Lerhe's meticulous research, conducted originally for his Dalhousie PhD thesis, is impressive, covering some 900 fully attributed original sources and another 12 confidential sources. He's one of the first to use Wikileaks and does so very effectively. The leaked documents are employed in pinning down how Canada was gradually excluded from the AUSCANUKUS intelligence exchange and in re-evaluating a series of widely-held myths. He finds two other previous assertions unfounded – that Canada was deployed to Kandahar in 2005 because it was the only PRT left, and that rejecting the Iraq War and National Missile Defence exacted few if any consequences for Canada.

The volume, like most PhD theses turned into books, is at great pains to reference and recognize debts to scholarly mentors and previously ventured theories. He supports Frank Harvey's contention that both Prime Minister Jean Chretien and Prime Minister Paul Martin professed disengagement from the US intervention in Iraq, while privately assisting American efforts. Successive Canadian governments are found to be practicing what David MacDonough termed the 'Goldilocks' Grand Strategy, taking a "sinuous path" that oscillates between full US collaboration and maintaining a more arm's length posture that shored up claims to Canadian autonomy. The decision in 2005 to go back to Kandahar, for example, is presented as "a side payment" at a time when the United States was expressing disappointment with Canada's ambiguity and to guard against possible retributive actions behind the scenes.

His debt to Dalhousie colleague Brian Bow is evident in his references to multiple examples of so-called "grudge retaliation" and the emphasis on President George W. Bush's loss of interest in nurturing the continental relationship and the consequent weakening of military-bureaucratic links. The most significant finding in this context is that "issue linkage" was the key factor in Washington officials

deciding to cut intelligence links in response to Canada's decision to stay out of Iraq.

Departing from previous analysts, Lerhe contends that Canada can still say no to US military requests. For decades Canadian governments, and notably from 1993 to 2005, resisted American appeals to boost defence budgets without overt US retribution. At sea, he insists that Canadian naval officers managed to exercise surprising autonomy, denying US requests to detain al-Qaeda suspects without evidence, declining to escort commercial shipping carrying US military supplies to Kuwait, and turning aside appeals to assist in intercepting fleeing Iraqis. The only identifiable retaliation he found was the cancellation of a proposed visit by President Bush to Canada. Although the Americans gave Canada increased command responsibilities, he claims that Canadian naval forces were "astoundingly vulnerable" on the seas because of lack of an overseas intelligence service or medical evacuation helicopters.

Eric Lerhe's *At What Cost Sovereignty?* is a military expert's book that deserves a wide audience. He succeeds in his goal of "setting the record straight" with an insider's look at a number of critical Canada-US defence issues in the early 2000s. It presents credible counterarguments to previous political and military analyses inclined to perpetuate the debates over the independence of Canada's foreign and defence policy. Critics promoting more separation in defence operations are clearly shown to be flying in the face of practical realities.

Continued defence collaboration, at the operations level, is here to stay. It will remain so as long as Canada remains committed to international affairs, cost-conscious Canadian governments remain unwilling and unable to pay the full cost of maintaining a global presence, and defence authorities, in the absence of viable options, continue to see close collaboration as 'the only game in town.' It took a retired naval officer like Eric Lerhe to render those practical lessons crystal clear. 🍷

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Dreadnought to Daring: 100 Years of Comment, Controversy and Debate in The Naval Review, edited by Captain Peter Hore, RN, Barnsley, United Kingdom: Seaforth Publishing, 2012, 518 pages, £35.00 (hardcover), ISBN 978-1-84832-148-9

Reviewed Colonel P.J. Williams

For myself, it all started in a dentist's waiting room in West Ruislip, near London, while on exchange in the United Kingdom in the late 1990s. I was looking for something to read, and what caught my eye was a compact blue-covered publication. Always being one to show up early for appointments, I found that I had enough time to peruse this volume, with the result that by the time I was in the chair, I had decided I'd be taking out a subscription. And so I was introduced to *the Naval Review*, first published in 1913, which continues to be issued quarterly, with the aim to foster independent professional debate in the Royal Navy (RN) and the Royal Marines (RM).

This book, produced for the centenary of *the Naval Review*, examines the extent to which the journal has had any impact on the development of the RN. While most naval readers are familiar with HMS *Dreadnought* and the revolution in naval affairs which she ushered in with her arrival in 1906, the 'Daring' of the title is HMS *Daring* the lead ship of the Type-45 or *Daring*-class air-defence destroyers built for the RN, and which came into service a century after *Dreadnought*.

The book is divided into 29 chapters which cover a myriad of subjects arranged chronologically. There are sections on, "Sir Julian Corbett and the Naval War Course," "Anglo-American Naval Relations," "The Development of British Naval Thinking," and just to remind us that Britain retains a deterrent, "Nuclear Matters." In each chapter, the Editor, Captain Peter Hore, researched parallel debates in *the Naval Review* to determine the degree each subject stirred up debate in the *Review's* pages.

In the early months of the Second World War for instance, one author opined (wrongly as it turned out) that defensive armament on board merchant ships and the convoy system would greatly reduce the threat from U-boat attacks. Another case of misreading naval developments lay in the fact that in the post-war era, there were relatively few articles about the future importance of naval aviation. In comparison, by this time, the US Navy had become very 'air-minded.' Interestingly there were also few wartime articles about legal matters or the law of armed conflict, one author claiming that they were "simply a set of copybook maxims that nobody plays the slightest attention to in these days [of war]" (p. 310), a view

that would not stand up in today's defence environment. More attention has been paid to officer training than any other subject in *the Naval Review's* history, and scarcely an issue goes by without an article or a letter to the Editor on this subject.

The Editor claims that while many states underestimated the ability of the Japanese to achieve swift victories early in the Second World War, the number of pre-war articles devoted to the importance of economics and alliances in any future conflicts was a case where the *Review* was bang-on. One of Britain's wartime allies was of course Canada, and indeed there is a chapter titled "A Distance Beyond Geography: The Royal Canadian Navy" by noted Canadian naval historian, Michael Whitby. Whitby concludes that the journal has had little impact on the development of Canadian naval thinking. It should also be noted that despite the RCN's efforts in support of convoys in World War Two, there are, sadly, few accounts of this in wartime issues of the *Review*. That said, Whitby also concludes that *the Naval Review* was the model chosen for our own, much younger, *Canadian Naval Review*, which has been in publication since 2005.

In an effort to encourage debate, and to reinforce its independent status, *the Naval Review* allows writers to use pseudonyms. This notwithstanding, the Editor notes that "nearly every First Sea Lord [the RN's professional head] of recent times has, as a junior officer, written for the *Review*" (pp. xii-xiii). The book is well illustrated and includes a variety of photos, and the detailed notes run to some 57 pages.

The arrival of each issue of *the Naval Review* still continues to excite after all these years, in particular the "Correspondence" section (the part which I always read first), with its collection of letters to the Editor written in that direct and robust style, which the Brits have mastered so well. Its book reviews can also be highly entertaining: I recall in particular one in which the reviewer (of a book he most definitely did not enjoy) complemented the book on its excellent aerodynamic qualities as he flung it in frustration across the room! That is not the case with this volume. This book is both highly engaging and strongly recommended. Perhaps our own *Canadian Naval Review* will merit a similar centenary gift in future. 🍷



The first of the Arctic Offshore Patrol Ships to be built in Halifax will be named after a Nova Scotia native who was one of Canada's most distinguished sailors during the Second World War. Vice-Admiral Harry DeWolf CBE DSO DSC CD (26 June 1903–18 December 2000) had a lengthy naval career including command of HMCS *St. Laurent* and HMCS *Haida* from 1939 until 1944. DeWolf earned a number of accolades for his service, including an appointment as a Commander of the Order of the British Empire and as an Officer of the US Legion of Merit. Captain DeWolf commanded the aircraft carriers HMCS *Warrior* (R31) and HMCS *Magnificent* (CVL 21) between January 1947 and September 1948 before being promoted to Rear-Admiral. He served as Flag Officer Pacific Coast at Esquimalt from 1948 to 1950, then was recalled to NDHQ where he served as Vice Chief of Naval Staff from 1950 to 1952, then was posted to Washington, DC as principal military advisor to the Canadian Ambassador from 1952 to 1956. DeWolf was promoted to Vice-Admiral in January 1956 and served as Chief of the Naval Staff before retiring from the RCN on 31 July 1960.

Ready aye Ready.

Lest we forget!



HMCS Regina's CH-124 Sea King helicopter deploys flares during a routine flight operation in the Indian Ocean on 14 August 2014.

Credit: Cpl Michael Bastien, MARPAC Imaging Services