



## Royal United Services Institute of Nova Scotia Dispatches 20 December 2019

*The Royal United Services Institute of Nova Scotia provides a forum for the study, promotion and debate of defence and security issues.*

*Dispatches* is a weekly collection of links and news of current interest, included those tweeted and posted by the Institute on social media. Links to articles are checked at the time they are put into *Dispatches* but may be unavailable at a later date or in some states other than Canada.

If you are not a routine recipient of *Dispatches* but wish to be so, email the Institute's Chief Information Officer (CIO) at [RUSINovaScotia@gmail.com](mailto:RUSINovaScotia@gmail.com). If you do not want to receive *Dispatches*, or wish to receive it at some different frequency, please inform the CIO. If you wish to receive *Dispatches* at a different address (i.e., not your work address), please inform the CIO. Past editions of *Dispatches* may be requested by contacting the CIO.

Everyone is encouraged to email to the CIO links and other content to be included in *Dispatches*.

Submissions and feedback are welcome anytime. Comments to articles can be from members or non-members of RUSI(NS). Any comment in *Dispatches* is the sole opinion of the author and does not necessarily represent the views of the Canadian Department of National Defence, the Canadian Armed Forces, the Royal Canadian Mounted Police or the Royal United Services Institute of Nova Scotia

RUSI(NS) also publishes a weekly *Defence & Security Newsletter*, aimed at opinion leaders and industry. If you are interested in receiving the newsletter, or want past editions, email [admin@duncom.ca](mailto:admin@duncom.ca).

### Best of the Holidays Season and Merry Christmas!

The Board of the Royal United Services Institute of Nova Scotia wishes you and yours a happy holidays, and a safe and prosperous New Year.

*(MV Asterix with tree at masthead, per tradition.)*



**Membership Renewal.** It is year end and time for membership renewal for 2020. A notification email has been sent to RUSI(NS) members and prospects. Whether you are paying dues or your dues are waived, please fill out the renewal form. Your information is important for the accuracy of our data base and therefore our operations. Please return your renewal form promptly.

**Survey.** The beginning of 2020 is also time for the annual RUSI(NS) survey. Survey Monkey will be used again to manage the survey. You will receive a survey email in January asking you to fill in the survey. The survey will be short. Your feedback is important and wanted – please take the time to complete the survey. For those who receive RUSI(NS) emails at an @forces address and therefore would have issues

with a Survey Monkey link, a separate email will be sent to you.

**Events:**

To list an event in *Dispatches*, email the CIO by noon Thursday. RUSI(NS) events are by invitation only. If you are interested in attending and have not been invited, email [RUSINovaScotia@gmail.com](mailto:RUSINovaScotia@gmail.com). RUSI(NS) events may be cancelled at short notice – email RUSI(NS) if there is a question of an event occurring.

**22 January, Wednesday** - Distinguished Speaker Brigadier-General Roch Pelletier, Commander 5th Canadian Division. The title of his talk is "Commander 5th Canadian Division – Army Reserve Update." 1130-1330. Royal Artillery Park Officers' Mess. **Note** this is the third Wednesday of the month, not our normal second.




**19 February, Wednesday** – (to be confirmed) Distinguished Speaker Dr Harvey-Clark, Dalhousie about on diving on heritage wrecks (ocean war graves), and Major (retired) John McCallum about munitions. 1130-1330. Royal Artillery Park Officers' Mess.

**Recent Publications:**


The Military Institute of Windsor Communiqué, Volume XXXVIII Number 1 January 2020 is available on request to [RUSINovaScotia@gmail.com](mailto:RUSINovaScotia@gmail.com).

**Tweeted by @RUSI\_NS:** RUSI(NS) tweets may also be viewed by clicking on the icon at <https://RUSI-NS.ca>. To have something tweeted or retweeted, email the CIO at [RUSINovaScotia@gmail.com](mailto:RUSINovaScotia@gmail.com). Original article title in parentheses.

<p>STRATCOMCOE @STRATCOMCOE 11 Dec tweeted and RUSI(NS) retweeted: "An opponent may now be targeted more effectively with Tweets instead of Tomahawk missiles." Many thinkers believe information war can be more effective than conventional war- and here's why: <a href="https://www.realcleardefense.com/articles/2019/12/02/myth_v_ersus_lethality_losing_the_plot_in_the_information_war_114886.html">https://www.realcleardefense.com/articles/2019/12/02/myth_v_ersus_lethality_losing_the_plot_in_the_information_war_114886.html</a> @RCDefense (Myth Versus Lethality: Losing the Plot in the Information War)</p>	
<p>5thCanadianDivision @5CdnDiv 15 Dec tweeted: The 5th Canadian Ranger Patrol Group patrols isolated areas of NL&amp;Lab including the North Warning System. Enjoy these rare pictures of Canada's Mysterious North. #Vigilans #TheWatchers GIF: <a href="https://mobile.twitter.com/5CdnDiv/status/1206172191274029057">https://mobile.twitter.com/5CdnDiv/status/1206172191274029057</a> RUSI(NS) retweeted: .@HarjitSajjan Minister @NationalDefence mandate letter: "...develop better surveillance (including by renewing the North Warning System), defence and rapid-response capabilities in the</p>	

<p>North..." <a href="https://pm.gc.ca/en/mandate-letters/minister-national-defence-mandate-letter">https://pm.gc.ca/en/mandate-letters/minister-national-defence-mandate-letter</a> #Arctic</p>	
<p>Not just @RoyalCanNavy warships enforce sanctions. #Submarines, @RCAF_ARC aircraft &amp; other sensors/platforms are part of surveillance team <a href="https://www.comoxvalleyrecord.com/community/407-squadron-returns-to-19-wing-comox-following-operation-neon/">https://www.comoxvalleyrecord.com/community/407-squadron-returns-to-19-wing-comox-following-operation-neon/</a> #OpNEON <a href="https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-neon.html">https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-neon.html</a> (407 Squadron returns to 19 Wing Comox following Operation NEON)</p>	
<p>Anti-aircraft defence one of top priorities of Comd @CanadianArmy <a href="https://cbc.ca/news/politics/anti-aircraft-canadian-forces-1.5399461">https://cbc.ca/news/politics/anti-aircraft-canadian-forces-1.5399461</a> Says something of current concept of future op. Hmm, air defence not listed in Land procurement projects <a href="https://canada.ca/en/services/defence/defence-equipment-purchases-upgrades/land-equipment-procurement.html">https://canada.ca/en/services/defence/defence-equipment-purchases-upgrades/land-equipment-procurement.html</a> (Canada needs updated anti-aircraft systems for the modern battlefield, says army commander)</p>	
<p>Davie Shipbuilding @chantierdavie 19 Dec tweeted: Davie to Become Strategic Partner under the National Shipbuilding Strategy <a href="https://www.newswire.ca/news-releases/davie-to-become-strategic-partner-under-the-national-shipbuilding-strategy-850761096.html">https://www.newswire.ca/news-releases/davie-to-become-strategic-partner-under-the-national-shipbuilding-strategy-850761096.html</a> (Davie to Become Strategic Partner under the National Shipbuilding Strategy) RUSI(NS) retweeted: Canada announces next step toward adding third strategic partner under National Shipbuilding Strategy <a href="https://www.canada.ca/en/public-services-procurement/news/2019/12/canada-announces-next-step-toward-adding-third-strategic-partner-under-national-shipbuilding-strategy.html">https://www.canada.ca/en/public-services-procurement/news/2019/12/canada-announces-next-step-toward-adding-third-strategic-partner-under-national-shipbuilding-strategy.html</a></p>	

**Posted on Facebook Royal United Services Institute NS with comments:**

<p>Analysis: Russia to begin construction of universal landing ships project 11780 in 2020 - Part 1    <a href="https://www.navyrecognition.com/index.php/focus-analysis/naval-technology/7779-analysis-russia-to-begin-construction-of-universal-landing-ships-project-11780-in-2020-part-1.html">https://www.navyrecognition.com/index.php/focus-analysis/naval-technology/7779-analysis-russia-to-begin-construction-of-universal-landing-ships-project-11780-in-2020-part-1.html</a></p>	
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Russia to begin construction of universal landing ships in 2020 - take 2

<https://navyrecognition.com/index.php/focus-analysis/naval-technology/7785-russia-to-begin-construction-of-universal-landing-ships-in-2020-take-2.html>

Russia to begin construction of universal landing ships in 2020 - take 3

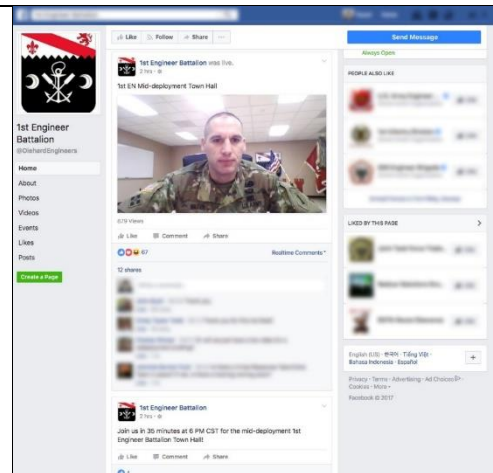
<http://www.navyrecognition.com/index.php/focus-analysis/naval-technology/7789-russia-to-begin-construction-of-universal-landing-ships-in-2020-take-3.html>

Not sure what "universal landing ship" means. Probably just a direct translation from the original Russian. Probably translates in meaning to LHD (landing ship, helicopter, dock), a large multi-role amphibious (meaning landing) vessel.

There is a NATO standard for ship types but not even NATO nations feel obliged to follow it (viz US Littoral Combat Ship and Canadian Arctic and Offshore Patrol Vessel). Certainly the Soviets and now the Russians need not. Ship type designations are more and more a term that generally describes a ship, and as ship capabilities evolve some designations don't necessarily relate to their historical origins.

Soldiers and social media: challenges, benefits, and disadvantages

<https://www.armyupress.army.mil/Journals/NCO-Journal/Archives/2018/June/Soldiers-and-Social-Media/>



"Developing a culture where Soldiers understand social media's limitations are paramount to overall understanding and appreciation of these platforms. The key to individual success is thinking before posting."

This is an old article, but US Army University Press tweeted it 13 December 2019. One wonders about the timing.

The Air Force Just Flew a Surveillance Drone for 2 Days Straight

<https://www.military.com/daily-news/2019/12/13/air-force-just-flew-surveillance-drone-2-days-straight.html>



Acronym alert: Ultra LEAP = Ultra Long Endurance Aircraft Platform.

Innovative use of commercial equipment, towards providing persistent surveillance quickly and at lower cost. Could be quite the enabler.

Weaker GDP growth means Canada's defence spending looks better for NATO

<https://www.theglobeandmail.com/politics/article-slower-than-expected-economic-growth-to-help-canadas-defence-spending/>

**Note:** You may encounter a pay wall when trying to read the article.

"...attributed the change to slower-than-expected economic growth over the next few years and more spending on non-military specific activities like veterans' benefits and the Canadian Coast Guard."



Groundbreaking research gives snapshot of world in which politics coverage is warped by social media algorithms and friendship groups

<https://www.theguardian.com/politics/2019/dec/05/uncovered-reality-of-how-smartphones-turned-election-news-into-chaos>

"If everything that people are seeing is via social media – who is accountable? There is very little human intelligence or decision-making behind it, no attempt to give a balanced view. That seems to leave all responsibility on the reader."



Russia's Tank Forces Got A Really Rude Awakening In Syria

<https://nationalinterest.org/blog/buzz/russias-tank-forces-got-really-rude-awakening-syria-105237>

"...the real lesson to be drawn was less about technical deficiencies and more about crew training, competent morale, and sound tactical employment matter more even than 'invulnerable' armor."



I helped write the official lies to sell the Afghanistan war

[https://www.washingtonpost.com/outlook/i-helped-write-the-official-lies-to-sell-the-afghanistan-war/2019/12/13/384df194-1d1d-11ea-87f7-f2e91143c60d\\_story.html](https://www.washingtonpost.com/outlook/i-helped-write-the-official-lies-to-sell-the-afghanistan-war/2019/12/13/384df194-1d1d-11ea-87f7-f2e91143c60d_story.html)



A (US) public affairs staffer whose job was to mislead the American public, the Afghan people and higher-ups within the American military itself. Hmm, how widespread was that? How many public affairs staff of other coalition countries were operating similarly? Gotta figure the deception was widespread between partners otherwise it would not have stood up long to scrutiny.

The Dawn of the Age of ‘Astropolitics’?

<https://www.geopoliticalmonitor.com/the-dawn-of-the-age-of-astropolitics/>



"After all, even in the cosmos, locations matter, and conflict has been inseparable from the human condition since the time of the Pharaohs."

Canadian NORAD Region hosts first Arctic Airpower Seminar

<http://www.rcaf-arc.forces.gc.ca/en/article-template-standard.page?doc=canadian-norad-region-hosts-first-arctic-airpower-seminar/k42ze0qb>



"... established this series of seminars to help build relationships and deep dive into the specific of polar logistics and sustainment. Forging partnerships across Arctic communities, mission stakeholders, and allied forces are requirements for success." Good to read the focus on polar logistics.

Banerjee: Why we still need a review of Canada's role in Afghanistan

<https://ottawacitizen.com/opinion/columnists/banerjee-why-we-still-need-a-review-of-canadas-role-in-afghanistan>



"Undoing the past is not possible but learning from it will help us avoid the mistakes made and save us from losses in similar ventures. Let us move our government to launch an independent comprehensive review of our Afghanistan mission with this purpose."

US-China tech war's new battleground: undersea internet cables

<https://www.scmp.com/week-asia/politics/article/3042058/us-china-tech-wars-new-battleground-undersea-internet-cables>



The vulnerability of submarine (‘nother word for undersea) communication cables has long been a concern for Canada, what with the Canadian east coast (especially Halifax) being points of landing for the cable. The Royal Canadian Navy has long patrolled our sea approaches to protect cables, whether against the Soviets or against modern adversaries. Protection of this critical infrastructure has been considered and exercised by staff planners in headquarters.

There is good potential for underseas drones to add to cable protection patrols. Of course, there is great potential for adversaries to use drones to tap or cut cable communications. That is a routine disruptive activity, albeit escalatory.

It is quite possible for an adversary to use 'financial/economic warfare' to take control of a submarine communication cable. Cables are vulnerable in more than just the physical domain.

Remember: the majority of inter-continental communications pass by submarine cables, not by satellite.

Report: Fight Against China Requires Navy to Field Modern Unmanned Eyes In The Sky

<https://news.usni.org/2019/12/17/report-fight-against-china-requires-navy-to-field-modern-unmanned-eyes-in-the-sky>



"A fleet without eyes cannot fight." The composition of the Royal Canadian Navy, at least, its ships, is public knowledge in the intended figures of the projects of the National Shipbuilding Strategy. What are intentions for drones in the Navy?

Defence materiel expensive, even more so when it's made at home

<https://www.theaustralian.com.au/nation/defence/defence-materiel-expensive-even-more-so-when-its-made-at-home/news-story/fd22cca544e894b0dae985bc3406b260>



"The problem with our total order of 72 (F-35) is not that they're expensive, but that 72 is just way too few to defend Australia with."

Hmm, it'd be interesting to see the (unclassified) math that led to Canada's decision to buy 88. Canada is not the only country to have a challenging defence procurement situation/process.

Canada to join NATO's cyber defence research centre

<https://www.opencanada.org/features/canada-to-join-natos-cyber-defence-research-centre/>



"Cybersecurity challenges and threats will not abate anytime soon, and these challenges require multilateral and global solutions. Close collaboration with our friends is the surest way forward."

China commissions 2nd aircraft carrier

<https://www.globaltimes.cn/content/1173837.shtml>



"China Commissions Second Aircraft Carrier" is an article by Liu Xuanzun and Gua Yuandan, published in the Global Times on 17 December 2019. Hull 17 has a name, the SHANDONG. She will be deploying to the South China Sea shortly. The carrier air group is considerably larger than the first Chinese carrier, the LIAONING, a Soviet-era hull and machinery. The article provides an optimistic overview of the ship's aircraft capacity, capabilities and future types of operations that China envisions.

On another note, there are rumours and suggestions that China's first carrier, LIAONING, may be sold to Pakistan. Just what Pakistan needs, an expensive white elephant. Training alone would be prohibitively expensive, let alone purchase of suitable aircraft, ship maintenance and building of the necessary infrastructure to support such a capability. At least India has that part already in place. It would be ironic if a Pakistani and current Indian carriers fight, both being ex-Soviet creations and neither really that capable.

China expects to produce its third carrier within two years with an operational date sometime in 2025 according to the article "China's Third Aircraft Carrier in two Years: Report" (<https://www.globaltimes.cn/content/1174015.shtml>) by Liu Xuanzun, published in the Global Times on 18 December 2019.

In the recent past there was much speculation that this third carrier might be nuclear powered. The article suggests that is not necessarily the case but rather she will be conventionally powered and slightly larger than the newly commissioned SHANDONG (72,000 tons), at roughly 80,000 tons. Unlike the SHANDONG with a ski jump, this carrier is expected to have electromagnetic catapults and arrestor gear. This is an interesting development if true. The article also suggests that Chinese current nuclear propulsion capability is not yet available but that would be available in a future carrier in the late 2020s or early 2030s.



It was interesting that the article also states this new launch and recovery system would be a marked improvement over “the old-fashioned ski jump” launching technique. One might think this was a deliberate knock against the newly built Queen Elizabeth-class of the Royal Navy, which of course has the ski ramps.

The article does give an overview of this third carrier which is interesting if true. It is an open source article in the Chinese English language press, so a certain degree of skepticism is necessary.

The bottom line is: China will have three carriers, and all are different, very different, which may be a mechanical nightmare and bad for the long-term health of their fleet. The rapid growth also calls into question their ability to train sufficient people quickly in an area they have little long-term experience. Infrastructure of a complex fleet is also a concern longer term. Lack of proper facilities can lay up a technologically advanced ship. Can China produce the necessary infrastructure and technical folks in such a short period? Time will tell.

Lockheed Martin and Canadian UAVs to Improve Unmanned Beyond Visual Line of Sight Operations

<https://www.suasnews.com/2019/12/lockheed-martin-and-canadian-uavs-to-improve-unmanned-beyond-visual-line-of-sight-operations/>



"The ability to fly unmanned aerial vehicles (UAVs) beyond the visual line of sight (BVLOS) significantly improves their effectiveness and potential. The increased range of BVLOS operations requires real-time airspace situational awareness for the UAV pilot and support crew to ensure safe, repeatable operations."

"...provide an unmanned traffic management solution to meet this challenge. This solution will build a complete airspace picture necessary to conduct unmanned operations beyond visual line of sight in Canada and beyond."

Wudda thought such a capability would have been obvious and have been developed much earlier.

Culture of austerity: Maple Resolve challenges brigade by prioritizing resources

<https://canadianarmytoday.com/culture-of-austerity-maple-resolve-challenges-brigade-by-prioritizing-resources/>



"...focus was on enhancing regional mobility and sustainability." Good, an attention to logistics. That needs to be a focus for higher-echelon elements.

Apparent in the article that good attention was paid to other areas: information ops, cyber ops, irregular ops, CBRN, the human/operating environment, movement, C2, combined ops and joint ops. Good training, and an interesting exercise.

Canada looking at military engineers, on-the-ground training for peacekeeping

<https://www.msn.com/en-ca/news/canada/canada-looking-at-military-engineers-on-the-ground-training-for-peacekeeping/ar-BBY5ENV>



"Canada is exploring the possible deployment of military engineers as ... government takes a fresh look at ways to step up its support for United Nations peacekeeping..."

"The government is also looking at having Canadian military trainers join peacekeepers from other nations in the field to help them better do their jobs."

"In order for Canada to provide expert trainers in the field, it needs to get experience in UN field operations."

Even when deploying niche specialty capabilities, a military has to be good (experienced) at it first.

Ocean tech: Robot sea snakes and shoal-swimming subs

<https://stockdailydish.com/ocean-tech-robot-sea-snakes-and-shoal-swimming-subs/>



"Robot sea snakes" reads like a capability that could be very useful for underwater inspection, repairs, salvage, counter-mine and diver support.

Micro drone submarines that swim in 'shoals' (groups). Hmm, now we have the term analogous to the swarming of aerial drones - shoaling.

**Posted on Facebook Royal United Services Institute NS:** RUSI(NS) postings may be viewed by clicking on the icon at <https://RUSI-NS.ca>. To have something posted or commented, email the CIO by noon Thursday.

 <p><b>RUSI</b> www.rusi.org</p> <p>This Week</p> <p><a href="https://mailchi.mp/rusi.org/thisweek-6-december-167289?e=a539211a30">https://mailchi.mp/rusi.org/thisweek-6-december-167289?e=a539211a30</a></p>	
<p>Turkey, Russia 'very close' to deal for 2nd S-400 system: defense industry head</p> <p><a href="https://www.reuters.com/article/us-turkey-defence-russia/turkey-russia-very-close-to-deal-for-2nd-s-400-system-defense-industry-head-idUSKBN1YH126?utm_source=Sailthru&amp;utm_medium=email&amp;utm_campaign=EBB%2012.13.19&amp;utm_term=Editorial%20-%20Early%20Bird%20Brief">https://www.reuters.com/article/us-turkey-defence-russia/turkey-russia-very-close-to-deal-for-2nd-s-400-system-defense-industry-head-idUSKBN1YH126?utm_source=Sailthru&amp;utm_medium=email&amp;utm_campaign=EBB%2012.13.19&amp;utm_term=Editorial%20-%20Early%20Bird%20Brief</a></p>	 <p><b>REUTERS</b></p>
<p>Fire sweeps Russia's only aircraft carrier</p> <p><a href="https://www.navytimes.com/news/your-navy/2019/12/13/fire-sweeps-russias-only-aircraft-carrier/?utm_source=Sailthru&amp;utm_medium=email&amp;utm_campaign=EBB%2012.13.19&amp;utm_term=Editorial%20-%20Early%20Bird%20Brief">https://www.navytimes.com/news/your-navy/2019/12/13/fire-sweeps-russias-only-aircraft-carrier/?utm_source=Sailthru&amp;utm_medium=email&amp;utm_campaign=EBB%2012.13.19&amp;utm_term=Editorial%20-%20Early%20Bird%20Brief</a></p>	
<p>Sajjan given mandate to modernize NORAD, buy fighter jet fleet</p> <p><a href="https://www.cbc.ca/news/SOMNIA-1.5395390">https://www.cbc.ca/news/SOMNIA-1.5395390</a></p>	

Three ministers to work on options for creation of the new Defence Procurement Canada

<https://ottawacitizen.com/news/national/defence-watch/three-ministers-to-work-on-options-for-creation-of-the-new-defence-procurement-canada>



Competing in the Gray Zone

[https://www.rand.org/pubs/research\\_reports/RR2791.html?utm\\_source=WhatCountsEmail&utm\\_medium=RAND%20Policy%20Currents+AEM:%20%20Email%20Address%20NOT%20LIKE%20DOTMIL&utm\\_campaign=AEM:631600804](https://www.rand.org/pubs/research_reports/RR2791.html?utm_source=WhatCountsEmail&utm_medium=RAND%20Policy%20Currents+AEM:%20%20Email%20Address%20NOT%20LIKE%20DOTMIL&utm_campaign=AEM:631600804)



Boeing Declines to Bid for ICBM, Leaving Northrop the Sole Contestant

[https://www.defenseone.com/business/2019/12/boeing-declines-bid-icbm-leaving-northrop-sole-contestant/161898/?oref=defense\\_one\\_breaking\\_nl](https://www.defenseone.com/business/2019/12/boeing-declines-bid-icbm-leaving-northrop-sole-contestant/161898/?oref=defense_one_breaking_nl)



Arctic features prominently in new Canadian defence marching orders

<https://www.rcinet.ca/en/2019/12/13/arctic-features-prominently-in-new-canadian-defence-marching-orders/>



Minister of National Defence Mandate Letter

<https://pm.gc.ca/en/mandate-letters/minister-national-defence-mandate-letter>



The 2019 Mandate Letter to Minister of Defence: Some Reactions

<http://saideman.blogspot.com/2019/12/the-2019-mandate-letter-to-minister-of.html>



Defence Department Assistant Deputy Minister Chris Henderson to return to Canadian Coast Guard

<https://ottawacitizen.com/news/national/defence-watch/defence-department-adm-chris-henderson-to-return-to-canadian-coast-guard>



US Army's High-Powered Skull Study May Yield Better Helmets

[https://www.defenseone.com/technology/2019/12/us-armys-high-powered-skull-x-rays-may-yield-better-helmets/161904/?oref=defense\\_one\\_breaking\\_nl](https://www.defenseone.com/technology/2019/12/us-armys-high-powered-skull-x-rays-may-yield-better-helmets/161904/?oref=defense_one_breaking_nl)



Lockheed Martin awarded \$18M for F-35 support for Australia, UK, Canada

<https://www.upi.com/Defense-News/2019/12/13/Lockheed-Martin-awarded-18M-for-F-35-support-for-Australia-UK-Canada/5401576266672/?ts=24>



Turkey could close Incirlik air base in face of U.S. threats: Erdogan

[https://www.reuters.com/article/us-turkey-usa-sanctions-incirlik/turkey-could-close-incirlik-air-base-in-face-of-u-s-threats-erdogan-idUSKBN1YJ0LL?utm\\_source=Sailthru&utm\\_medium=email&utm\\_campaign=EBB%2012.16.19&utm\\_term=Editorial%20-%20Early%20Bird%20Brief](https://www.reuters.com/article/us-turkey-usa-sanctions-incirlik/turkey-could-close-incirlik-air-base-in-face-of-u-s-threats-erdogan-idUSKBN1YJ0LL?utm_source=Sailthru&utm_medium=email&utm_campaign=EBB%2012.16.19&utm_term=Editorial%20-%20Early%20Bird%20Brief)



HMCS Ottawa along with Republic of Korea Navy ships to arrive Wednesday on west coast

<https://ottawacitizen.com/news/national/defence-watch/hmcs-ottawa-along-with-republic-of-korea-navy-ships-to-arrive-wednesday-on-west-coast>



China's new aircraft carrier enters service at South China Sea base

[https://www.reuters.com/article/us-china-defence-carrier/chinas-first-domestically-built-aircraft-carrier-enters-service-idUSKBN1YL136?utm\\_source=Sailthru&utm\\_medium=email&utm\\_campaign=EBB%2012.17.19&utm\\_term=Editorial%20-%20Early%20Bird%20Brief](https://www.reuters.com/article/us-china-defence-carrier/chinas-first-domestically-built-aircraft-carrier-enters-service-idUSKBN1YL136?utm_source=Sailthru&utm_medium=email&utm_campaign=EBB%2012.17.19&utm_term=Editorial%20-%20Early%20Bird%20Brief)



Finland's Defense Minister Antti Kaikkonen on AI and new fighter jets

[https://www.defensenews.com/smr/nato-2020-defined/2019/12/17/finlands-defense-minister-antti-kaikkonen-on-ai-and-new-fighter-jets/?utm\\_source=Sailthru&utm\\_medium=email&utm\\_campaign=EBB%2012.17.19&utm\\_term=Editorial%20-%20Early%20Bird%20Brief](https://www.defensenews.com/smr/nato-2020-defined/2019/12/17/finlands-defense-minister-antti-kaikkonen-on-ai-and-new-fighter-jets/?utm_source=Sailthru&utm_medium=email&utm_campaign=EBB%2012.17.19&utm_term=Editorial%20-%20Early%20Bird%20Brief)



US Forces Can't Hide from Ubiquitous Satellites. They Need to Fool Them.

[https://www.defenseone.com/ideas/2019/12/us-forces-cant-hide-ubiquitous-satellites-they-need-learn-fool-them/161913/?oref=defense\\_one\\_breaking\\_nl](https://www.defenseone.com/ideas/2019/12/us-forces-cant-hide-ubiquitous-satellites-they-need-learn-fool-them/161913/?oref=defense_one_breaking_nl)



RCAF puts restrictions on training aircraft after three engine-related incidents

<https://www.msn.com/en-ca/news/canada/rcaf-puts-restrictions-on-training-aircraft-after-three-engine-related-incidents/ar-BBY69QJ?ocid=se>



Canada needs updated anti-aircraft systems for the modern battlefield, says army commander

<https://www.cbc.ca/news/somni-1.5399461>



Cyber-Security: The Threats from Russia and the Middle East

[https://www.cgai.ca/cyber\\_security\\_the\\_threats\\_from\\_russia\\_and\\_the\\_middle\\_east?utm\\_campaign=pp\\_cyberferry&utm\\_medium=email&utm\\_source=cdfai](https://www.cgai.ca/cyber_security_the_threats_from_russia_and_the_middle_east?utm_campaign=pp_cyberferry&utm_medium=email&utm_source=cdfai)



Russian spy ship lurking off US coast conducting 'unsafe operation'

[https://www.militarytimes.com/flashpoints/2019/12/18/russian-spy-ship-lurking-off-us-coast-conducting-unsafe-operation/?utm\\_source=Sailthru&utm\\_medium=email&utm\\_campaign=EBB%2012.19.19&utm\\_term=Editorial%20-%20Early%20Bird%20Brief](https://www.militarytimes.com/flashpoints/2019/12/18/russian-spy-ship-lurking-off-us-coast-conducting-unsafe-operation/?utm_source=Sailthru&utm_medium=email&utm_campaign=EBB%2012.19.19&utm_term=Editorial%20-%20Early%20Bird%20Brief)



Russia's top military officer airs concern about NATO drills

[https://www.militarytimes.com/flashpoints/2019/12/18/russias-top-military-officer-airs-concern-about-nato-drills/?utm\\_source=Sailthru&utm\\_medium=email&utm\\_campaign=EBB%2012.19.19&utm\\_term=Editorial%20-%20Early%20Bird%20Brief](https://www.militarytimes.com/flashpoints/2019/12/18/russias-top-military-officer-airs-concern-about-nato-drills/?utm_source=Sailthru&utm_medium=email&utm_campaign=EBB%2012.19.19&utm_term=Editorial%20-%20Early%20Bird%20Brief)



The Department of Defense Posture for Artificial Intelligence

[https://www.rand.org/pubs/research\\_reports/RR4229.html?utm\\_source=WhatCountsEmail&utm\\_medium=RAND%20Policy%20Currents+AEM:%20%20Email%20Address%20NOT%20LIKE%20DOTMIL&utm\\_campaign=AEM:631600804](https://www.rand.org/pubs/research_reports/RR4229.html?utm_source=WhatCountsEmail&utm_medium=RAND%20Policy%20Currents+AEM:%20%20Email%20Address%20NOT%20LIKE%20DOTMIL&utm_campaign=AEM:631600804)



Russia Plans to Cut Off Some Internet Access Next Week

[https://www.defenseone.com/technology/2019/12/russia-plans-cut-some-internet-access-next-week/162028/?oref=defense\\_one\\_breaking\\_nl](https://www.defenseone.com/technology/2019/12/russia-plans-cut-some-internet-access-next-week/162028/?oref=defense_one_breaking_nl)



The US Air Force's UH-1N Huey replacement helicopter has a new name

<https://www.defensenews.com/air/2019/12/19/the-air-forces-uh-1n-huey-replacement-helicopter-got-a-new-name-today/>



**Other Sources:** Recommendations for 'themes' (e.g., #drones) to list in this section are welcome.

### #Arctic

Arctic threats, water shortages and rising conflicts: Climate change will require military responses

<https://www.militarytimes.com/news/your-military/2019/12/12/arctic-threats-water-shortages-and-rising-conflicts-climate-change-will-require-military-responses/>

### #China-US relations

Looking back: WWII remembered

<https://thecritic.co.uk/issues/december-2019/looking-back-wwii-remembered/>

This 'future cast' article coincides with a book being circulated amongst SAC members: "Destined for

War: Can America and China Escape Thucydides's Trap?" (<https://www.amazon.ca/Destined-War-America-Escape-Thucydides-ebook/dp/B01IAS9FZY>). There have been a number of Thucydides's Trap-related publications of late.

### #China

Resetting Canada's Approach to China: Charles Burton and Brett Byers in Inroads

<https://www.macdonaldlaurier.ca/resetting-canadas-approach-china-charles-burton-brett-byers-inroads/>

### #cyber ops

Military Cyber Operations: The New NDAA Tailors the 48-Hour Notification Requirement

<https://www.lawfareblog.com/military-cyber-operations-new-ndaa-tailors-48-hour-notification-requirement>

US, but worth a read, especially as it considers legal aspects.

### #domestic operations planning

The Value of Conceptual Planning During Disasters

[thesimonscenter.org/featured-article-conceptual-planning-during-disasters/](https://thesimonscenter.org/featured-article-conceptual-planning-during-disasters/)

### #evaluations

We Need to Talk About Your Military Appraisal

<https://wavellroom.com/2019/12/17/we-need-to-talk-about-military-appraisals/>

UK, but interesting to compare.



## **#government**

Prime Minister welcomes new parliamentary secretaries

<https://pm.gc.ca/en/news/news-releases/2019/12/12/prime-minister-welcomes-new-parliamentary-secretaries>

Several parliamentary secretaries are related to the interests of RUSI(NS). Congratulations to Darrel Samson, one of our local (to Halifax) Members of Parliament for his appointment as Parliamentary Secretary to the Minister of Veterans Affairs and Associate Minister of National Defence.

## **#immigration**

Illegal Immigration and Refugees

<https://www.armyupress.army.mil/Special-Topics/Hot-Topics/Illegal-Immigration-and-Refugees/>

Army U Press on Twitter: "Hot Topic: Illegal Immigration and Refugees - This compilation consists of articles from Military Review, the Combat Studies Institute, monographs from students at the Command and General Staff College, and selected works from other sources. <https://t.co/ANMW4fdFZs> <https://t.co/JiuFSkUE7M>"

## **#information operations**

How the West struggled to combat digital foreign interference

<https://www.politico.eu/article/misinformation-disinformation-uk-general-election-canada-facebook/>

Licence to hack: using a keyboard to fight Islamic State

<https://www.abc.net.au/news/2019-12-18/inside-the-islamic-state-hack-that-crippled-the-terror-group/11792958>

## **#influence activities**

The assessment of situational factors to support Influence Activities

[https://cradpdf.drdc-rddc.gc.ca/PDFS/unc339/p810507\\_A1b.pdf](https://cradpdf.drdc-rddc.gc.ca/PDFS/unc339/p810507_A1b.pdf)

## **#immigration**

Canada 2040: No Immigration Versus More Immigration

<https://www.conferenceboard.ca/e-library/abstract.aspx?did=9678>

"This report examines the economic implications of no immigration in Canada and quantifies the impacts of gradually increasing immigration. It also looks at the economic impacts of Canada's three immigrant admissions classes (economic, family, and refugee)."

Recalling our CBSA speaker March 2018.

## **#land warfare**

Future soldier technologies: Laser sight trial

[www.army-armee.forces.gc.ca/en/news-publications/national-news-details-no-menu.page?doc=future-soldier-technologies-laser-sight-trial/k3t033hw](http://www.army-armee.forces.gc.ca/en/news-publications/national-news-details-no-menu.page?doc=future-soldier-technologies-laser-sight-trial/k3t033hw)

## **# location awareness**

Smart Technology Use with Public Safety and First Responders

[https://cradpdf.drdc-rddc.gc.ca/PDFS/unc339/p810391\\_A1b.pdf](https://cradpdf.drdc-rddc.gc.ca/PDFS/unc339/p810391_A1b.pdf)

## **#national security**

How to Think about Homeland Security: The Imperfect Intersection of National Security and Public

Safety book review: <https://www.hsaj.org/articles/15587>

### **#Royal Canadian Navy**

Defence Deconstructed: Commander of the Royal Canadian Navy on modernizing Canada's naval force podcast: <https://soundcloud.com/user-609485369/defence-deconstructed-commander-of-the-royal-canadian-navy-on-modernizing-canadas-naval-force>

### **#special operations**

Time for External Oversight of Britain's Special Forces

<https://www.oxfordresearchgroup.org.uk/time-for-external-oversight-of-britains-special-forces>

### **#transnational crime**

Lines, Flows and Transnational Crime: Toward a Revised Approach to Countering the Underworld of Globalization

<https://www.hsaj.org/articles/15514>

Hmm, LoC now means 'lines of crime' rather than 'lines of communication?'

### **#weapons**

Hypersonic missiles: Three questions every reader should ask

<https://thebulletin.org/2019/12/hypersonic-missiles-three-questions-every-reader-should-ask/>

### **Other:**

#### **Minister of National Defence Mandate Letter and the Arctic**

Levon Sevunts @LevonSevunts 13 Dec tweeted: Prime Minister @JustinTrudeau released the mandate letters for his cabinet ministers. To all those #defence #policy wonks out there, I'm curious what do you make of it.

<https://twitter.com/LevonSevunts/status/1205543391901241352>

(Minister of National Defence Mandate Letter

<https://pm.gc.ca/en/mandate-letters/minister-national-defence-mandate-letter>)

Levon Sevunts retweeted: I'm particularly curious about what you make of this mandate for @HarjitSajjan: "develop better surveillance (including by renewing the North Warning System), #defence and rapid-response capabilities in the North and in the maritime and air approaches to Canada, to strengthen continental defence, protect Canada's rights and sovereignty and demonstrate international leadership with respect to the #navigation of #Arctic waters." I find the last point interesting, is it a reference to US FONOPs in the Arctic? #China? #Russia

The RUSI(NS) SAC is discussing the MND's mandate letter. Meanwhile, the following comments: Whether for defence, security and safety (including environmental) of the region, or prosperity and health of Northern peoples, Canadian sovereignty in the Arctic/North needs enhancement/reinforcement by development of the transportation infrastructure, especially the marine lines of communication. All activities in the North are a concern, China's (a non-Arctic state) particularly. Robust surveillance and reaction capabilities ensure that Canada is aware of and can take appropriate action in response to the movement of great powers (US, China, Russia) and small. No single activity (e.g., FONOPS) is a cue. This approach should be laid out in Canada's Arctic strategy.

Following his tweet and prior to receiving SAC's comments, Levon Sevunts published "Arctic features prominently in new Canadian defence marching orders" <https://www.rcinet.ca/en/2019/12/13/arctic-features-prominently-in-new-canadian-defence-marching-orders/>. Good to see Adam MacDonald, RUSI(NS) member, quoted in the article.

## CDA Institute Aerogram: USMA Modern War Institute War Books: Major General Mick Ryan's 2020 Reading List

Below and available at <https://mwi.usma.edu/war-books-major-general-mick-ryans-2020-reading-list/> is The United States Military Academy's Modern War Institute War Books: Major General Mick Ryan's 2020 Reading List. VR Howard

Editor's note: For the past two years, Maj. Gen. Mick Ryan has compiled a reading list for professional development that the Modern War Institute has published. Each of these has been widely read, and we're thrilled to present the newest installment of his list. Many readers will be familiar with Maj. Gen. Ryan from social media, and for any who are not, be sure to follow @WarInTheFuture on Twitter—one of the best resources available for professional development.

Welcome once again to my annual reading list...There are some "carry over" resources and classics, but many new ones as well.

Reading is an indispensable element of membership in the profession of arms, and indeed for all national security practitioners. It provokes us to think outside of the day-to-day duties that often absorb us. It allows us to develop an understanding of the larger context of our profession—national policy, strategic cultures, military strategy, and societal issues—which impacts on the training for, and conduct of, military operations and wider national security affairs. Reading also provides the practitioner with an excellent opportunity for vicarious learning, through studying the "breadth and depth" of our profession.

This single-page list of readings and other PME (professional military education) resources is not designed as a comprehensive reading program. It is, however, a small collection of resources for those who wish to begin (or re-engage in) their voyage of exploration in the many tenets of our profession. And it is not just books. It is a wider range of other resources that allows the military professional to connect into a global discourse on professional education and development. This permits us to reach out to fellow travelers seeking enlightenment about the profession of arms and national security issues. I have again included several science-fiction novels that feature themes that are relevant to the military. I have written previously about why military officers should read sci-fi, and have collaborated with Nate Finney on two sci-fi reading lists. Given the small number of sci-fi books I included, this might be the most controversial aspect of this list—there is no *Starship Troopers* or *Enders Game*. I don't think these are bad novels. From my perspective, I just find the *Old Man's War* series, *The Forever War* and the recent *Murderbot* series by Martha Wells more relevant, enjoyable, and interesting. And they have been useful for students in our Perry Group elective at the Australian War College.

This year, I have included just one film on my list. I will admit some bias in its selection. *Danger Close* is an Australian film released in 2019 about the Battle of Long Tan during the Vietnam War. The battalion involved, the 6th Battalion, Royal Australian Regiment (6RAR) is one I served with in East Timor in 2000, and whose soldiers served with my task force in Afghanistan in 2006–2007. It is a terrific film about leadership and battlefield ambiguity, the nature of service, and the last full measure of devotion.

Senior members of the military, as stewards of our profession, must provide the leadership, direction, and incentives that nurture the follow-on generations of military leaders. I trust that this list goes part way to fulfilling this duty, and that it is useful for individuals in their self-study and unit-based PME programs. I hope too that it provides a good line of departure for those who wish to re-energize their reading and professional study habits. I look forward to hearing what everyone thinks.

Books

Classics:

Strassler, R. (ed), The Landmark Thucydides  
Sun Tzu, The Art of War  
Von Clausewitz, C. On War

The Profession of Arms:

Brown & Leonard (eds), Why We Write  
Huntington, S., The Soldier and the State  
Hackett, J., The Profession of Arms  
Finney & Mayfield (eds), Redefining the Modern Military  
Murray & Mansoor, The Culture of Military Organizations  
White, C.E., The Enlightened Soldier

Learning from Military History:

Fox, A., Learning to Fight  
Fredrick, J., Black Hearts  
Heuser, B., The Evolution of Strategy  
McCrae, M., Coalition Strategy and the End of WW1  
Brands & Edel, The Lessons of Tragedy  
Murray & Millet, Military Innovation in Inter War Period  
Slim, W., Defeat into Victory  
Wohlstetter, R., Pearl Harbor: Warning and Decision  
Yoshikawa, E., Musashi

Contemporary Issues:

Bricker, D., Empty Planet  
King, A., Command  
Krepps, S., Taxing Wars  
Qiao & Wang, Unrestricted Warfare  
Shanks Kaurin, P., On Obedience  
Singer, P. and Brooking, E., Like War  
Cheung, Tai Ming, Forging China's Military Might  
White, H., How to Defend Australia

The Future:

Gray, C., The Future of Strategy  
Harari, Y.N., 21 Lessons for the 21st Century  
Payne, K., Strategy, Evolution and War: From Apes to AI  
Russell, S., Human Compatible: AI & the Problem of Control

Military Fiction and Sci-Fi:

Haldeman, J., The Forever War  
Scalzi, J., Old Man's War (series)  
Wells, M., All Systems Red (series)

## Websites, Podcasts, & Other Resources

### Websites:

The Strategy Bridge  
Small Wars Journal  
The Modern War Institute at West Point  
Logistics in War  
War on the Rocks  
The Forge (Australian Defence College)  
Mad Scientist Laboratory (US Army Training and Doctrine Command)  
Grounded Curiosity  
>From the Green Notebook  
The Angry Staff Officer  
Leverhulme Centre for the Future of Intelligence  
Wavell Room  
The Runway (Royal Australian Air Force)  
Wired

### Twitter Feeds:

@FeralData  
@Doctrine\_Man  
@EBKania  
@WarInstitute  
@SecurityScholar  
@MilWritersGuild  
@KaraAFrederick  
@JessicaScott09  
@pptsapper  
@KMansted  
@QueenOfThinAir

### Podcasts:

The Dead Prussian  
AI with AI

### Journals:

Foreign Affairs  
Australian Journal of Defence and Strategic Studies  
MIT Tech Review

### Reports:

Development, Concepts, and Doctrine Centre (UK), Global Strategic Trends: The Future Starts Today  
Defense Innovation Board (US), AI Principles: Recommendations on the Ethical Use of Artificial Intelligence by the Department of Defense

Films:

Danger Close (2019)

Mick Ryan is an Australian Army officer. A graduate of Johns Hopkins University and the USMC Staff College and School of Advanced Warfare, he is a passionate advocate of professional education and lifelong learning. He is a science fiction fan, a cricket tragic, and an aspiring (but very average) writer. In January 2018, he assumed command of the Australian Defence College in Canberra, Australia.



<https://link.govexec.com/view/56c715c86e4adc434d8b5279b9rig.87j/bc7c0f9b>