



Royal United Services Institute of Nova Scotia Dispatches 13 October 2023

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

Dispatches is a weekly collection of news of interest, including posts to social media by the Institute. Links to articles are checked at the time they are put into *Dispatches* but may be unavailable at a later date or in some countries other than Canada.

Everyone is encouraged to submit links and other content to be included in *Dispatches*. Submissions and feedback are welcome anytime. Email to RUSINSDispatches@gmail.com. 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 Royal United Services Institute of Nova Scotia, the Department of National Defence or other government department, the Canadian Armed Forces, or the Royal Canadian Mounted Police or other agency.

If you wish to receive *Dispatches* at a different address (i.e., not your work address), please inform RUSI(NS). Past editions of *Dispatches* may be requested by contacting RUSI(NS).

RUSI(NS) Remembrance Dinner 2023 Cancellation

Regrettably, we must cancel the RUSI(NS) November Dinner 2023. As most of us are aware, the Royal Artillery Park Officers' Mess has been under renovation for some time and we just learned that the dining / kitchen facilities will very likely not be ready for our November 9 Dinner. It's a frustrating situation and we regret the inconvenience; all the same we thank you for your support -- fees paid will be returned within the next few days. Those who paid via EMT and do not have "auto deposit" set up, the password is RUSI. Once again, thanks and we look forward to our next social gathering in December and of course, our Remembrance Dinner 2024, complete with table and chairs and kitchen!

Dan Tanner
Immediate Past-President

Events:

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

17 October, Tuesday - "Re-Fighting History - The War in the East, Boardgames, and Histories of WWII." 7-9 pm ADT. Online. For more info and to register: <https://www.eventbrite.com/e/re-fighting-history-the-war-in-the-east-boardgames-and-histories-of-wwii-tickets-684218986407>.

18 October, Wednesday - Distinguished Speaker Vice-Admiral Angus Topshee, Commander Royal Canadian Navy, titled "Why Canada Needs Submarines." 1400-1600. Royal Artillery Park Officers' Mess. Registration required; see call-to-meeting/invitation.

Pre-event reading:

Canada's Future Submarine Capability

<https://cdainstitute.ca/canadas-future-submarine-capability/>

and:

Can a new operational profile fix Canada's submarine problem?

<https://www.shephardmedia.com/news/naval-warfare/canadas-submarines-have-had-limited-availability-in-recent-years-but-a-transition-to-a-new-operation/>

and:

Canada's Future Submarine Capability

<https://cdainstitute.ca/canadas-future-submarine-capability/>

and because some articles can just be fun:

<https://www.forces.net/services/navy/why-are-submarines-black-answer-isnt-straightforward-you-might-think>

New: and (also see Facebook post below in *Dispatches*)

How many nuclear-powered submarines for Australia?

<https://www.aspistrategist.org.au/how-many-nuclear-powered-submarines-for-australia/>

18 October, Wednesday - Society of Naval Architects and Marine Engineers Canadian Atlantic Section presentation "Frigate Boats and Cranes." 6:30-7:45 pm AT. Online. To register:

<https://communities.sname.org/events/event-description?CalendarEventKey=cf8b4df9-67c1-4344-bd9e-018af5a5a533>

New: 2 November, Thursday - panel presentation "National Security During Natural Disasters in Atlantic Canada." See box below.

14 November, Tuesday - Georgetown University Wargaming Society presentation "Read Threat Rising - US Marine Corps Educational Wargames." 7-9 pm AST. Online. For more info and to register:

<https://www.eventbrite.com/e/read-threat-rising-us-marine-corps-educational-wargames-tickets-698764231627>

12 December, Tuesday - Georgetown University Wargaming Society presentation "The Tyranny of Binaries: how wargame rules build narratives." 7-9 pm AST. Online. For more info and to register:

<https://www.eventbrite.com/e/the-tyranny-of-binaries-how-wargame-rules-build-narratives-tickets-633057882167>.

National Security During Natural Disasters in Atlantic Canada

Jay Heisler, RUSI(NS) member, extends an invitation to a panel presentation by Canadian hurricane celebrity Jim Abraham and anti-human trafficking trainer Larry Cameron. The presentation will be held Thursday, **2 November**, from 5 to 6:30 pm at CoWork Halifax, 6156 Quinpool Road, Halifax.

Join Jim Abraham and Larry Cameron to discuss national security matters during national disasters, ranging from emergency management to anti-human trafficking and including an overview of both hurricane response and anti-human trafficking in general. The event will be a one hour discussion, with half an hour for questions. Moderator will be Jay Heisler.

As seating is limited, **please email** Jay at jayoscarheisler@gmail.com if you want to attend.

Presenter bios:

Jim Abraham has spent over 45 years involved in weather, water and climate. He was President of the Canadian Meteorological & Oceanographic Society (CMOS) from 2021 to 2023. He is well known nationally and internationally, and is frequently invited as an expert speaker by a variety of organizations and the media. As President of ClimAction Services Inc., he and colleagues assist municipalities, including African NS and Indigenous communities, to understand and adapt to climate change and extreme weather. Jim started his career with Environment Canada at CFB Greenwood, then transferred to Whitehorse and on to Montreal where he learned to work in French. Subsequently, Jim managed a wide variety of weather, water, and environmental operational and research programs, including meteorological research and the observing program for all of Canada including the Arctic. His most proud accomplishment was starting the Canadian hurricane forecast and research program. He was lead investigator for several reconnaissance flights into hurricanes threatening Canada...and he survived. Jim was awarded the Patterson Medal for Meteorology in 2003, the Queens Jubilee Medal in 2013, and a Fellowship of the Canadian Meteorological and Oceanographic Society in 2017.

Larry Cameron has 20+ years experience in the technology and cyber security industries. He is currently with Project Sentinel and is an OSINT Investigator / Team Lead for the Blockchain Forensic Team at the National Child Protection Task Force (NCPTF). He is a trainer for Interpol, trainer for all 5400 agencies making up the 61 Internet Crimes Against Children (ICAC) task forces, a Computer Forensics and Cloud Security Professor at St Lawrence College and Head of Cyber Security for the Cyber Rights Organization out of The Hague. He works with local, state, federal and international Law Enforcement, along with military organizations on Human Trafficking and Child Exploitation investigations.

Publications:

Publications without links are available on request to RUSINovaScotia@gmail.com.

RUSI(NS) Paper "Kingston-class Ships – Less than meets the eye" by SWD Swan, 1 August 2023, <https://rusi-ns.ca/kingston-class/>

RUSI(NS) Comments "Naval Doctrine and Strategy," 25 July 2023, https://rusi-ns.ca/naval_doctrine_strategy/

New: Canadian Marine Industries and Shipbuilding Association *On Watch*, 11 October 2023
<https://www.cmisa.ca/cpages/on-watch-current>

Edmonton United Services Institute President's *Enews*, October 2023

Military Institute of Windsor *Communiqué*, Volume XLI, Number 9, October 2023

Nautical Professional Education Society of Canada *Seatimes*, August 2023.

Naval Association of Canada Ottawa Branch September 2023 Speaker's Evening recording "Canadian Sea Power in the Wake of Changing Geopolitics" with Dr Rob Huebert
<https://www.youtube.com/watch?v=JfPImxlyZqg>

New: Royal Alberta United Services Institute *Dispatches*, October 2023
<https://rausi.ca/component/acym/archive/212-rausi-dispatches-october-2023>

Royal Canadian Artillery Association *The Canadian Gunner News* 28 September 2023

Royal Canadian Logistics Service Newsletter *The Logician* September 2023
<https://sway.office.com/pA4cFB1V3YMF4WNI>

Royal Canadian Naval Association Admiral Hose Branch *Scuttlebutt*, October 2023

Royal United Services Institute for Defence and Security Studies New South Wales *Newsletter*, Issue No.87 August 2023

Royal United Services Institute of Vancouver Island *Newsletter*, Volume 55, 3rd Quarter 2023

New: Royal United Services Institute of Victoria (Australia) *Defence Update*, Volume 21, Issue 2, 9 October 2023

New: Royal United Services Institute of Victoria (Australia) *Quarterly Newsletter*, Volume 22, Issue 3, September/October 2023

New: Vancouver Artillery Association and Royal United Services Institute Vancouver *Members News* 10 Oct 2023


Veterans Affairs Canada *Salute!*, September 2023, <https://www.veterans.gc.ca/eng/about-vac/news-media/salute>

@RUSI_NS on X:

@RUSI_NS posts may also be viewed by clicking on the icon at <https://RUSI-NS.ca>. To have something posted or reposted, email RUSI(NS).

Murray Brewster @Murray_Brewster 6 Oct posed: Top generals warn allies - including Canada - are running low on ammunition to donate to Ukraine and to defend NATO. #cdnpoli #cdnpolitics #Ukraine #RussiaUkraineWar #NATO (<https://www.cbc.ca/news/politics/canadian-armed-forces-artillery-shells-nato-ukraine-wayne-eyre-1.6988281>) CDA Institute @CDAInstitute 6 Oct quoted and RUSI(NS) reposted: We have to increase our capacity to make artillery shells in the West and do so dramatically. Canada has excellent companies that are well equipped to deal with this quickly. All they need is the word "go" and multi-year appropriations to avoid boom and bust.



CDN Defence Academy/L'Académie cdn de la défense @CDACanadaACD 6 Oct posted and RUSI(NS) reposted:  Lethal autonomous weapons: between myths and confusions (12min read or 15:30 listen) (@RAS_NSA) (<https://ras-nsa.ca/fr/les-armes-letaales-autonomes-entre-mythes-et-confusions/>)



CNA @CNA_org 9 Oct posted: 📄 New CNA Report 📄 Our analysts characterize the scope of China’s illegal, unreported, and unregulated (#IUU) fishing, tools available for nations to counter it, and how special operations forces (#SOF) could contribute.

(Implications of Illegal, Unreported, and Unregulated Fishing for US Special Operations Forces

<https://www.cna.org/reports/2023/10/implications-of-iuuf-for-specopsforces>)

RUSI(NS) quoted: Illegal, unreported & unregulated #IUU fishing is environmental, economic, security & defence threat in many regions. CAN🇨🇦 marine services must be prepared to collaborate to counter: centralized intelligence & information sharing; exchange best practices; plan, train & exercise
Ignore the Special Operations Forces bit, value can be taken from the report for general consideration and application.



NAADSN_RDSNAA @NAADSN_RDSNAA 9 Oct posted and RUSI(NS) reposted: 📄 Newly released workshop report from our North American Arctic Security Workshops alongside @nasiffik_ and the Ted Stevens Center

https://www.naadsn.ca/wp-content/uploads/2023/10/NAASW-Report-2023_Final.pdf







CBC News @CBCNews 11 Oct posted: Canada is sending more munitions to Ukraine, including artillery rounds and aircraft bombs, Defence Minister Bill Blair announced at NATO headquarters in Brussels.

<https://cbc.ca/news/politics/canada-donating-more-artillery-shells-bombs-ukraine-1.6992204>

RUSI(NS) quoted: Donation includes 76mm naval gun ammunition <https://www.canada.ca/en/departement-national-defence/news/2023/10/minister-blair-announces-new-military-donations-for-ukraine-at-the-16th-meeting-of-the-ukraine-defense-contact-group.html> How long has that been sitting in magazines? @RoyalCanNavy paid off 76mm gun armed ships some years ago. How much more useful material can be available when @NationalDefence supply depots are closely checked?

(Minister Blair announces new military donations for Ukraine at the 16th meeting of the Ukraine Defense Contact Group)



COM SNMCMG1 @COM_SNMCMG1 12 Oct posted:
During the historical ordnance disposal operations on  territorial waters @COM_SNMCMG1   paid a short visit to  HMCS Shawinigan, where got an insight into the mine countermeasure specifics of the ship and especially how the crew handles with minehunting in #FRAHODOPS.
RUSI(NS) quoted: #FRAHODOPS = France Historical Ordnance Disposal. @RoyalCanNavy Kingston-class mine warfare ships have participated for some years with divers & underwater #drones. "NATO Conducts Historical Ordnance Disposal Operations Off French Coast" <https://maritime-executive.com/article/nato-conducts-historical-ordnance-disposal-operations-off-french-coast>



“Royal United Services Institute of Nova Scotia” on Facebook:

RUSI(NS) posts may also be viewed by clicking on the icon at <https://RUSI-NS.ca>. To have something posted or commented, email RUSI(NS).

Shipyards use 3D tech to create parts for USS Oklahoma

<https://www.13newsnow.com/article/news/national/military-news/shipyards-use-3d-technology-to-create-parts-for-navy-virginia-class-submarine-oklahoma/291-f1d4320a-a9bc-4f7a-aac5-1d3149fd970d>



"The ability to make a part in real time, to address emergent or critical material needs is a game-changer," This is one possible solution to improve our supply chain. One of the large benefits we see in this is improved product quality, improved schedule performance and it could have some positive influences in costs as well."

When RUSI(NS) visited the Royal Canadian Navy's Fleet Maintenance Facility Cape Scott's additive manufacturing (AM) shop, staff there emphasized that one of the greatest advantages of AM was the capability to make otherwise difficult-to-obtain (usually because of system age) and costly parts.

Defence Research and Development Canada (DRDC) currently has a collaboration underway with academia and industry to develop additive manufacturing (AM) processes for copper-based alloys. The goal is to transition these processes to the industrial partners so that they can provide additively manufactured parts and repairs for the alloys of interest to the Royal Canadian Navy (RCN). It can be said that this project aims to help propel AM capabilities in Canadian industry. Of course, before these services can be widely used it will be up to the Department of National Defence Material Group to set (or adopt third-party) requirements for validating/qualifying the processes and contractors. So, it is probably a few years out before significant varieties of AM parts from industry for RCN applications can be sourced, even if the current collaboration is successful.

It is understood that when it comes to new ship builds, the decision whether or not to use a particular manufacturing technique is generally made by the shipyard (and/or their subcontractors). In the case of submarines, since who will be contracted to build them is not known, it's impossible to comment on their appetite for employing AM. But if DRDC efforts toward improving the availability of AM

services from Canadian industry are successful, then this could only help to promote AM and its potential benefits to the shipbuilder.

Canada is a latecomer to the Indo-Pacific – and we need to prove we’re serious players

<https://www.theglobeandmail.com/opinion/article-canada-is-a-latecomer-to-the-indo-pacific-and-we-need-to-prove-were/>

"Canada is a Pacific country, and so it is also in our national interests to contribute to regional security, including the physical security of maritime trade routes to ensure that supply chains are not compromised. That means beefing up our defence spending – not cutting it – to ensure an active defence presence in the region."



Ten RAstar 3200-W ASD Tugs to be built for the Suez Canal Authority

<https://ral.ca/2023/09/19/ten-rastar-3200-w-asd-tugs-to-be-built-for-the-suez-canal-authority/>

This is the same Canadian designer of the RAmports 2400 tugs being delivered to the Royal Canadian Navy under the Navy Large Tug project (<https://ral.ca/2019/06/25/robert-allan-ltd-to-design-new-tugs-for-the-canadian-navy/> and <https://www.tpsgc-pwgsc.gc.ca/app-acq/amd-dp/mer-sea/sncn-nss/naval-largegros-eng.html>).

- - -

Editor: Doesn't look like the tug will be built in Canada though!. Canada has a history in the Second World War of building a lot of tugs.



Has Canada Reached an Inflection Point on National Security?

<https://www.cigionline.org/articles/has-canada-reached-an-inflection-point-on-national-security/>

"With a comprehensive and integrated road map for national security that speaks to the four compass points (economic, security, climate and social policy), current and future (Canadian) governments can begin to climb out of reactive mode."

Yes, a call for a current national security strategy, and action driven by that strategy.



North Korea says military satellite key to countering US 'space militarisation'

<https://www.thenews.com.pk/print/1118072-north-korea-says-military-satellite-key-to-countering-us-space-militarisation>

"In another KCNA dispatch, an international affairs commentator named Ra Jong Min denounced Canada's planned dispatch of military ships, aircraft and personnel for 'Operation NEON,' aimed at ensuring implementation of UN sanctions against North Korea."

Operation NEON

"Operation NEON is Canada's contribution to a coordinated multinational effort to support the implementation of United Nations Security Council sanctions imposed against North Korea."

<https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-neon.html>

If North Korea is complaining, Operation NEON must be having effect.



China's 'blue dragon' strategy in the Indo-Pacific

<https://www.aspistrategist.org.au/chinas-blue-dragon-strategy-in-the-indo-pacific/>

Comments from RUSI(NS) members:

1. Very interesting to note the breadth of China's reach into its periphery. Canadians who are watching are familiar with the expansion of maritime capability and its aggressive use in the East and South China Seas, with that being a formidable but still quite traditional threat. More subtle, and potentially more immediately impactful upon millions of lives and livelihoods, is the manipulation of water levels by the damming of rivers that have their headwaters in the Tibetan Plateau. The use of "water diplomacy" by a state that has shown itself willing to employ coercion to achieve compliance with its will, or to punish perceived transgression, is a powerful weapon in China's arsenal.
2. There are differing opinions as to what constitutes strategy. What is described in this article as 'blue dragon strategy' may more be grand strategy (again a term that is debated) or, considering the level and how it is being applied, international policy. Whatever, 'blue dragon' is a catchy/message-centric and academic/strategy-students appealing term. Not sure if and how it could be used by strategists (naval and other commanders).



How many nuclear-powered submarines for Australia?

<https://www.aspistrategist.org.au/how-many-nuclear-powered-submarines-for-australia/>

"Since the 2009 defence white paper, successive reviews have affirmed the need for 12 submarines supported by a base on each coast providing specialised infrastructure, workshops and a submarine squadron staff."



Rather simple math to conclude Australia needs 12 submarines to ensure two boats are out at any time on the two coasts. But useful and good messaging for a general public. On that basis (and ignoring

differences between conventional and nuclear-powered submarines), and reasonably presuming Canada wants a submarine presence in the North, Canada would need 18 to 24 boats. More than the 12 mooted publicly these days, and certainly more than the four in the fleet now whose at-sea presence is low.

This commenter can attest to the utility of two submarines operating in an area at one time. Two at sea considerably adds to the operational problem for potential adversaries. "Think second submarine."

- - -

From a RUSI(NS) member: This article is thoughtful and illuminating. It raises serious questions about the AUKUS program. There are no easy solutions as money is not the only issue. The RAN will be challenged to build sufficient crews for the new fleets of submarines and surface ships.

Australians are creative and resilient but there are limitations in human and technical resources. I would expect the submarine project timelines will require extension and costs will increase.

Other Sources:

#armour

Historical articles, but kinda suspect some (lots?) of the points therein still apply.

Tanks: The Basics

<https://tacticalnotebook.substack.com/p/tanks-the-basics>

The Employment of Tanks

<https://tacticalnotebook.substack.com/p/the-employment-of-tanks>

The Tiger Tank

<https://tacticalnotebook.substack.com/p/the-tiger-tank>

Thirty Rules for the Leader of an Armored Panzer Grenadier Company

<https://tacticalnotebook.substack.com/p/thirty-rules-for-the-leader-of-an>

The Armored Reconnaissance Radio Operator

<https://tacticalnotebook.substack.com/p/the-armored-reconnaissance-radio>

Armored Reconnaissance Patrols

<https://tacticalnotebook.substack.com/p/armored-reconnaissance-patrols>

#artificial intelligence #drones #Russia-Ukraine War

Tomorrow's Technology in Today's War: The Use of AI and Autonomous Technologies in the War in Ukraine and Implications for Strategic Stability

<https://www.cna.org/reports/2023/10/ai-and-autonomous-technologies-in-the-war-in-ukraine>

#artillery

New 155mm round exceeds range of some rockets, can be fired by standard Army artillery

<https://www.defenseone.com/business/2023/10/new-155mm-round-exceeds-range-some-rockets-can-be-fired-standard-army-artillery/391046/>

These much great ranges are going to put quite the call (sorry for the put) on improved targeting capabilities and processes.

#drones #logistics

Change of plans: US Army embraces lessons learned from war in Ukraine

<https://www.defensenews.com/digital-show-dailies/ausa/2023/10/09/change-of-plans-us-army-embraces-lessons-learned-from-war-in-ukraine/>

#China

Report to Congress on Chinese Naval Modernization

<https://news.usni.org/2023/10/11/report-to-congress-on-chinese-naval-modernization-18>

#command #war

Unity of Command or Unity of Effort? Rethinking a Fundamental Principle of War

<https://mwi.westpoint.edu/unity-of-command-or-unity-of-effort-rethinking-a-fundamental-principle-of-war/>

#defence policy

The first step to reclaiming Canada's cratering credibility? It's time to take foreign policy seriously

<https://thehub.ca/2023-10-02/andrew-evans-canadas-credibility-is-cratering-its-time-to-take-foreign-policy-seriously/>

As Blair sets sights on nearly \$1-billion DND cuts, pressure ramping up on Canada to spend more on defence, NATO commitments, say experts

<https://www.hilltimes.com/story/2023/10/09/as-blair-sets-sights-on-nearly-1-billion-dnd-cuts-pressure-ramping-up-on-canada-to-spend-more-on-defence-nato-commitments-say-experts/399411/>

Government invests \$220 million in local munitions manufacture

<https://www.australiandefence.com.au/news/news/government-invests-220-million-in-local-munitions-manufacture>

Australia is investing in readiness and self-sufficiency.

The Liberals' reckless retreat on defence

<https://www.theglobeandmail.com/opinion/editorials/article-the-liberals-reckless-retreat-on-defence/>

#Department of National Defence #research and development

2021-2022 'About Innovation for Defence Excellence and Security' (IDEaS) Annual Report

<https://www.canada.ca/en/department-national-defence/corporate/reports-publications/ideas-annual-report-2021-2022.html>

#drones

Australian-made undersea Defence drone nears production

<https://www.innovationaus.com/australian-made-undersea-defence-drone-nears-production/>

An Israeli Gap in Drone Defenses

<https://www.lawfaremedia.org/article/an-israeli-gap-in-drone-defenses>

#adaptation

(US) Army moves ahead on Ukraine-style bomber drones

<https://www.defenseone.com/technology/2023/10/army-moves-ahead-ukraine-style-bomber-drones/390918/>

#force development

The Army's new chief has a plan and it's all about warfighting

<https://www.armytimes.com/news/your-army/2023/10/09/the-armys-new-chief-has-a-plan-and-its-all-about-warfighting/>

#Indo-Pacific

#space

Japan is renaming its air force as threats from above become more 'complex'

https://www.stripes.com/theaters/asia_pacific/2023-10-11/japan-space-air-defense-force-11664863.html

(Paraphrased) The Japan Air Self-Defense Force changing its name to Air and Space Self-Defense Force as potential threats from space become "more diverse, complex and advanced,"...

#strategy(?)

China's 'blue dragon' strategy in the Indo-Pacific

<https://www.aspistrategist.org.au/chinas-blue-dragon-strategy-in-the-indo-pacific/>

There are differing opinions as to what constitutes strategy. What is described here as 'blue dragon strategy' may more be grand strategy (again a term that is debated) or, considering the level and how it is being applied, international policy.

Whatever, 'blue dragon' is a catchy/message-centric and academic/strategy-students appealing term. Not sure if and how it could be used by strategists (naval and other commanders).

#warfare

How China is fighting in the grey zone against Taiwan

<https://www.bbc.com/news/world-asia-66851118>

#land warfare

A battlegroup commander's perspective on battlegroup operations

<https://wavelroom.com/2023/05/17/a-battlegroup-commanders-perspective-on-operations/>

Integrating Offence and Defence: Lessons from the Israeli Experience

<https://rusi.org/explore-our-research/publications/commentary/integrating-offence-and-defence-lessons-israeli-experience>

#NATO

The Invasion of Ukraine Revived NATO. Is it Enough?

<https://warroom.armywarcollege.edu/articles/ukraine-revived-nato/>

#Russia-Ukraine War

The Russo-Ukrainian War – Day 589

good summary: <http://www.dupuyinstitute.org/blog/2023/10/05/the-russo-ukrainian-war-day-589/>

The minefields of Ukraine

<https://thehill.com/opinion/national-security/4242642-the-minefields-of-ukraine/>

Might Canada be able to support Ukraine by providing more assistance and equipment for mine clearing?

#drones

How autonomous systems can turn the tide for Ukraine

A call for more UGV development, production and employment:

<https://www.c4isrnet.com/opinion/2023/10/05/how-autonomous-systems-can-turn-the-tide-for-ukraine/>

(Note that an author is head at a vehicle autonomy company providing autonomous products and services for defense.)

Ukraine Situation Report: Kyiv Prepares For Unprecedented Winter Drone War

<https://www.thedrive.com/the-war-zone/ukraine-situation-report-kyiv-prepares-for-unprecedented-winter-drone-war>

Other:

Canadian Defence Academy *The Torch*: What's New This Week?

10-16 October: <https://cfc-ca.libguides.com/c.php?g=709488&p=5224119>

Surface Combatants

The below or variation has been emailed to CAF/DND including RCN, reporters and politicians:

A number of Canadian reporters have written lately about the Canadian Surface Combatant (CSC) project * (e.g., "The uncontrolled military program plundering the public purse, desperate for adult attention" <https://nationalpost.com/opinion/ivison-canadas-uncontrolled-military-program-plundering>). Similarly there have been articles, opinion pieces and editorials in Australia about their Hunter-class surface combatants which are based on the same UK Type 26 design as the CSC. Attached FYI is a 6 October 2023 *Sydney Morning Herald* article [Editor: "Floating 'turkeys': Is Australia spending \$50bn on dud ships? <https://www.smh.com.au/politics/federal/floating-turkeys-is-australia-spending-50bn-on-dud-ships-20231002-p5e941.html>]; available on request to RUSI(NNS).] As a RUSI(NS) colleague emailed "Same narrative unfolding in Australia, the UK and here. Similar issues, causes and criticisms".



Related, from the Australian National Audit Office:

Department of Defence's Procurement of Hunter Class Frigates

<https://www.anao.gov.au/work/performance-audit/department-defences-procurement-hunter-class-frigates>

* "Canadian Surface Combatant" is a project title, not a ship type. The vessels resulting from the CSC project may be designated by the Royal Canadian Navy as frigates, as the Royal Navy and Royal Australian Navy are designating their builds, or as destroyers, reflecting design changes to give the Canadian ships more anti-air capability (more missiles, better radar) because of Canada's geo-strategic situation and assessment of naval warfare. When/if/how that type designation may occur is unknown to RUSI(NS), though the Commander Royal Canadian Navy has been public about destroyers. For more info, see: "Types of Royal Canadian Navy Combatant Warships" (<https://rusi-ns.ca/types-of-rcn-combatant-warships/>) and attached.

Earlier this week the email below was sent to addressees including politicians:

FYI: "Independent analysis into Navy's surface combatant fleet received by Government" <https://www.minister.defence.gov.au/media-releases/2023-09-29/independent-analysis-navys-surface-combatant-fleet-received-government>

The Australian analysis could make for interesting reading (comparison for Canada) when (if?) the report or details from it are released publicly.

A RUSI(NS) colleague, someone who was much engaged in Canadian Navy ship project management, commented "Aye, but a similar report about Canada would be even better." Members of RUSI(NS) hope that Canadian government authorities are thinking similarly and closely investigating, seeking answers from senior naval commanders, about how the Royal Canadian Navy should be composed ("fleet design") to meet what activities Canadians want it and the Canadian Armed Forces able to undertake.

When RUSI(NS) participated in the submissions and town halls that led to the current defence policy *Strong, Secure, Engaged*, RUSI(NS) developed this simple approach to defence policy development:

1. What do Canadians want their country to be able to do in the world?
2. What do Canadians want their Armed Forces to be able to do in support of the answer to question 1?
3. How should the Armed Forces be composed in order to be able to do the answer to question 2? (This should be when the generals and admirals are asked for their assessments.)

Comments from RUSI(NS) members and colleagues:

1. Construction of warships is a complex process that requires a great level of expertise and competence throughout the complete process from the development of the military requirement through the design, build and commissioning of new warships. The Australian federal government is deep in such process now and Canada is getting into it. Hopefully, Canada can learn from the Aussie experiences, as the ships required are similar in general aspects. My great concern is whether Canada has enough "corporate" and "bureaucratic" experience to avoid the pitfalls that usually impact the stop and start features of major government procurements. The RCN needs new warships in this decade, and more in the next decade. Time waits for no person or government and we live in a dangerous world.
2. The article raises some interesting issues about real defence needs and priorities, ASW vs other missions, submarines vs surface warships, and the possible impending obsolescence of surface combatants. I wish Canada would engage in open debate in the public domain about these and other matters.

3. *About the Australian auditor's report:* The failure to maintain records on the key decisions taken and available were a surprise. (*For Canada, too*): There needs to be a users' simple guide to recording and records.

Security Affairs Committee Synopsis

O Canada

The Minister of Defence Bill Blair announced a further \$25m CAD in aid to Ukraine this week. This includes winter kit including sleeping bags, more than 2000 uniforms for female soldiers and ammunition. A very limited contribution once again, especially when Ukraine is fighting essentially for everyone in the West.

In a show of solidarity, the Prime Minister and the Leader of the Loyal Opposition joined in condemning Hamas' attack against Israel. Hamas is considered a terrorist organization by Canada. It was particularly disturbing to watch the celebration by certain elements in Canada over an assault on unarmed people in a violent and indiscriminate way with little attempt to sort civilians from legitimate military personnel. Canadian broadcasters even decided not to have Hamas described as terrorists despite the Canadian official position that it is in fact a terrorist organization. It is disturbing at best. The answer is not immediately obvious, but this has to be sorted out within Canadian society. Once again, our diversity can also be a weakness if not carefully managed as we have seen recently with India and the Free Khalistan movement and now between our Jewish and Palestinian domestic population. This is also an internal security issue for Canada.

The Minister of Foreign Affairs Melanie Jolie stated on 10 October that aircraft will be sent to Israel to pick up Canadian citizens who wish to leave in the coming days (now announced as Friday, 13 October 2023); this will include ground transport when necessary. There was no mention of how Canadian citizens will leave Gaza as yet. Canadians have been killed and have been taken hostage but final numbers are unknown. Three are confirmed dead. This will likely be the subject of much handwringing.

Canada's lack of military preparedness is now legendary. The CAF is considered the poor man of the block by most of NATO. It lacks the ability to recruit and train itself but it is also incapable of even acquiring the necessary tools it needs to just survive on a modern battlefield. It is beset with a non-functioning recruiting system built at the time of the Force Reduction Program in the mid-1990s, a training system also built to the same thinking and a procurement system that is historically non-functional unless Government says that it is a priority such as the new "gussied up" A-330 aircraft in Government of Canada livery - can't deliver fuel but they do look pretty. A big change is necessary. Consideration must be given to the concept of mobilization, how do we get relatively large numbers in the door, trained equipped and out the door to their tasks? We fought in Afghanistan on the back of the existing forces, we didn't mobilize in the traditional sense. As the Cold War really took off, Canada produced an armour brigade for northern Germany and a constant rotation of a brigade group in Korea as part of that conflict. We also maintained an airborne brigade and motorised brigades in Canada equipped with tanks - even the Reserve had tanks. The Reserve itself was massive with Reserve fighter squadrons, large numbers of naval reservists and a large militia to back up the Regular Army. We also maintained war stocks of older equipment that was still viable for training and even rear area security. Consideration was made for a national communications system that would likely survive an attack. Canada's current efforts are lacking in all respects.

Australia

My apologies to our Australian correspondent last week, didn't get his material out, although much of it is found in *Dispatches*. Mea culpa.

<https://www.defensenews.com/global/asia-pacific/2023/10/06/australia-invests-in-expanding-155mm-munitions-aerial-bomb-capacity/>

More ammunition production capacity.

<https://www.smh.com.au/politics/federal/floating-turkeys-is-australia-spending-50bn-on-dud-ships-20231002-p5e94l.html>

The Australian frigate debate is heating up. Where this ends is yet to be determined but the implications for the RCN are significant? Canada has some serious thinking and research to do! Additional comment from our correspondent: As you know, construction of warships is a complex process that requires a great level of expertise and competence throughout the complete process from the development of the military requirement through the design, build and commissioning of new warships. The Australian federal government is deep in such process now and Canada is getting into it. Hopefully, Canada can learn from the Aussie experiences, as the ships required are similar in general aspects.

My great concern is whether Canada has enough "corporate" and "bureaucratic" experience to avoid the pitfalls that usually impact the stop and start features of major government procurements. The RCN needs new warships in this decade, and more in the next decade. Time waits for no person or government and we live in a dangerous world.

<https://www.abc.net.au/news/2023-10-11/ukraine-military-resilience-program-psychological-challenges-war/102951216>

Canada should be looking at this as well.

<https://www.australiandefence.com.au/news/news/government-invests-220-million-in-local-munitions-manufacture>

Australia is taking the world situation seriously, Canada is not.

United States

The US has dispatched the USS Gerald R Ford Carrier Strike Group to the Eastern Mediterranean Sea off Israel to support if necessary the Israeli effort near Gaza. It will also support the evacuation of US and other foreign citizens. The US has also sent planeloads of various equipment and ammunition to Israel in response to the latest attack by Hamas. The US Secretary of State will visit Israel shortly to shore up support and to ensure the right type of support is available in a timely fashion.

In Congress, several members have suggested that all support to Ukraine should be suspended and sent to Israel. The current Administration stated it will continue with both efforts. Support to Ukraine has been generally good with the understanding that Ukraine is crippling Russia overall and is also supported by other NATO and EU countries. While this effort is ongoing there is considerable concern about the US ability to sustain this effort as well as keeping China away from attacking Taiwan at the same time. Such an event would sorely push all of the Western world into a difficult position and provide some respite for authoritarian regimes undergoing tremendous pressures at home and abroad.

Moldova

Iulian Rusu, the head of Moldova's Anti-corruption Centre, resigned ahead of an EU report on Moldova's efforts to curb corruption as part of an ongoing effort to lead potentially to Moldova's ascension into the EU. Six of nine requirements involved anti-corruption efforts. The EU report is expected to show the lack of positive movement in these areas. Mr Rusu was thanked for his effort by the Government - a new director would be appointed shortly.

Ukraine-Moldova and Romania have developed a new corridor for the export of grain from Ukraine according to President Zelensky this week after discussions with Klaus Iohannis, President of Romania. This would provide Ukraine with a safe route for future exports of grain. It is suspected that Russia will take note; there are suspicions that they will try to lay sea mines near this corridor then attempt to blame Kyiv. It is more dangerous for Russian efforts as Romania is part of NATO.

Belarus

Belarus continues to attempt to use immigrants as a weapon against its neighbouring NATO countries. This has led to increasing tensions with NATO nations that have sealed the borders including crossing points with Belarus. In mid-August, the US advised all citizens to leave Belarus due to increasing tensions. This warning is still in place. NATO forces of the host nations of Latvia and Poland are now in place along the border. Russia's Putin has warned against actions towards Belarus although short of nuclear weapons Russia no longer has the necessary resources to deal with a major incident. Still, strange incidents could occur. This issue is not over.

Alexander Lukashenko apparently gave a rambling interview covered on social media. Newsweek stated that one of the first to repost this interview was Anton Gerashchenko, who is an advisor to Ukraine's Minister of Internal Affairs. The whole interview is actually an attack on Western support to Ukraine. It is believed this was made to cause discomfort for Western politicians as opposed to providing actual support to President Zelenski.

Armenia-Azerbaijan War

Most of the Armenian population of approximately 120k in Nagorno-Karabakh have left, only a few for their own reasons have stayed. The internally displaced persons have caused a great deal of pressure on the current largely pro-Western government of Prime Minister Nikol Pashinyan. Demonstrators are still calling for his resignation. There is a general feeling that Russia failed to help because Prime Minister Pashinyan is disliked by President Putin, hence Russian peacekeeping forces did nothing to stop the Azeri attack. It is expected pro-Russian forces within the population will continue to demonstrate against the current government. One point should be noted, Russia will not lift a finger to support Armenia under the current government.

France and the EU have stated their support for Armenia. Azerbaijan is obviously less than happy over this decision. Earlier they left talks that included France aimed at the resolution of the conflict.

This war is a distraction for elements in the West and further stretches the ability of the West to deal with multiple problems. Could Russia and Turkiye have contrived such an outcome; both countries have vested interests in this regard. It is possible.

Russia-Ukraine War

The war will reach day 600 this coming Monday. Keep in mind the war has been going on since the arrival of "little green men" in Crimea, Donetsk and Luhansk in 2014 and not just since 24 February

2022. Despite the long haul, Ukraine continues in action with some success against a much larger foe. Both sides have astronomical losses of men, equipment and material both military and civilian. It also seems to re-establish the idea of a war of attrition, based on the defence as opposed to the staff college view of maneuver warfare being key. Neither side has sufficient capacity to create a breakthrough to set conditions for a rapid advance.

In the north, Russian troops continue to make minor gains around the Kupiansk-Svatova-Krimmena line. These have come with losses, but exact details are hard to come by at present. Russia is assessed at having between 110k and 120 k in the north. In the east around Bakhmut, Ukrainians have made gains just south of the city, small in nature but most seem to provide better observation and thus more opportunity to disrupt resupply or reinforcing troops. Russia's ability to maintain large numbers of troops in and around Bakhmut seems to be decreasing daily. It now becomes an issue of how long Russian commanders are willing to absorb increasingly large losses without the ability to return the favour. Somewhere around 50k Russian soldiers are in the vicinity of Bakhmut. At Advika, Russian forces made a strong attempt at encircling the city, formerly about 30k in population. They failed to advance but video shows that they took severe losses in equipment and personnel with little effect. In the south, Ukraine has made significant gains overall as the last major line of defence before Tokmak has been breached in the past 48 hrs although not confirmed. Tokmak itself is now under Ukrainian long range fire including all routes in and out of that city. Russian troops are continuing to build defences around and near the city but these are not as well prepared and Ukrainians are specifically targeting engineering equipment in the area. Some media sources have suggested that the Russians have about 80k troops in the area. Further south, Russian troops continue to patrol forward but most troops are apparently further inland than the banks of the Dnipro River; essentially neither side is pushing one way or another with any great effort. It seems mainly in the hands of individual patrol commanders of either side.

The biggest success for Ukraine is the displacement of the Russian Black Sea fleet from Sevastopol to other ports both civilian and military further to the east including Feodosia in Crimea and Novorossiysk in southern Russia. As of 11 October 2023 only one missile-carrying ship seems to be in place to launch surface-to-surface missiles on short notice. Only two of the three submarine are capable of firing missiles. The other missile-capable ships are in the larger naval port, Novorossiysk. It is suspected that smaller non-descript vessels will be tasked with laying mines, especially the newly created route with Moldova and Romania, to prevent Ukrainian grain from reaching customers. It potentially would put Russian and NATO forces in a tricky situation if Russia is caught in the act. NATO stated this week that it will be using regional fleets to create a local mine clearance capability.

President Zelensky attended the NATO Contact Group meeting in Brussels this week. He is pushing for more air defence assets and ammunition as well as discussing F-16 Fighting Falcon training of Ukrainian fighter pilots. This is taking on new importance as the war progresses. Sweden is also offering training on the J-39 Gripen which is also an excellent choice. It is a robust aircraft capable of launching from less than ideal air strips.

Israel-Hamas Conflict

This is actually a conflict started much earlier depending how one looks at it, as early as the mid-1800s when the first lands were purchased by Jewish settlers from Arab tribal leadership thus displacing the first fedayeen. One could even say it goes back to 70 AD and the enslavement and dispersal by the Romans of the Jews after the fall of Jerusalem during the last Jewish Revolt as noted by the writer Josephus. The stories of the Jewish suicide pact at Masada and Gamla are well known to people of the Jewish faith and are part of the oath made by new members of the Israeli Defence Forces (IDF) on graduation. The ceremony is quite moving and a reminder of grimmer days ahead.

It was announced this week that Israel will form a Government of National Unity to support the necessary actions of going to war on a prolonged basis. Netanyahu will still be Prime Minister although his key rivals are now part of the new government as observers within cabinet.

Hamas conducted a multi-pronged attack by land sea and air on southern Israel on 7 October 2023. This was the eve of Sukkot, one of the few happy days in the Jewish calendar. Hamas achieved surprise and displayed not a little skill. How they were able to do this without alerting Israeli intelligence, surveillance and reconnaissance forces will be something to consider for all the West. One suggestion is that Israel relied too much on technology rather than depending on their own soldiers conducting in-person patrols with mark one eyeballs. Casualties have been high with Israeli casualties now as high as 1200 killed and 2500+ people injured. Gazan casualties just over 1000 at this stage. Israeli forces state they have killed more than 1700 Hamas terrorists within Israel. Fighting has mainly ceased within Israel proper although apparently shots have been fired within the city of Ashkelon. More than 360k Israeli reservists have been called to active service. No ground operation has been started at the time of writing. All normal crossings have been closed and supplies stopped from entering Gaza. Apparently, the power plant has stopped running from lack of fuel. This is not over and it will get uglier.

China

The social media posts coming from China have been interesting. One of the biggest discussions revolves around the role of Xi in China's current economic decline, whether he is to blame or is the whole of the system created by the Communist Chinese Party is to blame because of its reluctance to risk their own self-enrichment by party elites. It seems either is possible but the latter seems to be taking on a new life especially after Xi was reprimanded by the Party elder at the August Beidaihe meeting. Xi is the Chairman of the Party, he is the President of China and Chair of the Central Military Commission, the three most powerful positions in China, and seldom is one person appointed to all three positions. As we have mentioned before, with these positions comes great responsibility and also the prime focus of blame if the situation warrants it. It is unlikely at this point that there would ever be a general uprising against the Party, but there very well may be a revolt amongst the Party elites, also unlikely but the circumstances can change. The CCP is not monolithic, it contains many factions, some we know of such as Jiang Chemin's faction or the faction surrounding Hu Jintao, both former Presidents of China, but we are not really aware of other factions that may be based on specific provinces or autonomous regions. It is complex.

The CCP runs China for its own survival. Most all the decisions are not based on the welfare of the country but rather the survival of the Party and also the enrichment of the Party elite. The Party elite are unlikely to allow too many changes that threaten overall stability nor their ability to enrich themselves. They will take any action to ensure that survival as we have seen on 4 June 1989 at Tiananmen Square where hundreds and perhaps thousands of students died at the hands of the Peoples' Liberation Army. We have also seen it again recently in Hong Kong.

Xi has been very busy changing key leadership to ensure his ongoing leadership. He created new military structures that should have made the PLA more effective by appointing essentially joint force commanders who would be the force employers, and relegated the service chiefs of staff as the force trainers and generators. When necessary, he has removed and in fact purged when necessary (in his view) to eliminate corruption. He has conducted purges in the Navy and the Strategic Rocket Forces. Most recently, he has taken aim at the Central Military Commission and removed key military members including the Minister of Defence. New personnel have not been appointed at least in public as yet.

What changed recently? The biggest change was the alleged loss of a nuclear hunter killer submarine of the Type 093 class, pennant number 417, with the loss of all hands in the Yellow Sea near Lianyungang. This is not confirmed as yet although social media sites including Chinese ones all suggest this happened, although some are now backing away. The 093 is based on a Russian design of the Victor III class with Chinese characteristics and is equipped with six torpedo tubes with 22 torpedoes and an unspecified number of YJ-18 cruise missiles. It is approximately 6000 tonnes and has a crew of around 100 when fully manned. There are about six in the current fleet which may be minus one. This may explain why the Minister of Defence disappeared especially as his previous job was the Chief of Logistics for the entire PLA. China has been quiet about this event which is usually a sign that something occurred. Is it enough to cause further dissatisfaction within the CCP? Maybe...if it is true. The causes of the loss suggested by various agencies include: running into a chain and anchor trap set for unsuspecting non-Chinese submarines; second, a torpedo launch failure; third, a mechanical failure within the boat such as the central oxygen monitoring system; an accident caused by a diving accident; and fifth, a reactor shutdown; but all could be true and multiple factors led to its destruction and the loss of crew. Neat story, all may be possible but not confirmed. It might explain the sudden dismissal of key leadership within the PLA.



CANADIAN FORCES INTELLIGENCE COMMAND
COMMANDEMENT DU RENSEIGNEMENT DES FORCES CANADIENNES

RUSSIA'S CLAIM:

On October 2, 2023, the Deputy Speaker of the State Duma, Irina Yarovaya, claimed that "suspicious infections" in the Ukrainian military are, "with a high degree of probability," the result of U.S.-led biolaboratories in Ukraine.

BASED ON CANADIAN FORCES INTELLIGENCE COMMAND ANALYSIS:

- Russia has promoted the narrative of American biolaboratories in Ukraine since the beginning of the war.
- Ukraine and the United States are signatories to the Biological Weapons Convention that prohibits biological weapons. This effectively bans the development, stockpiling, acquisition, retention, and production of biological agents and weapons.
- There are no American or Ukrainian biological weapons laboratories inside Ukraine.

UKRAINE / RUSSIA UPDATE // 2023-10-05



National
Defence
Défense
nationale

INTELLIGENCE UPDATE

- On 03 October 2023, Ukrainian Melitopol Mayor, Ivan Federov, said that Russian forces were building additional fortifications on the contested Orikhiv axis. In Novopokrovka, complex underground two-storey bunkers are being built with tunnels and trenches.
- In Tokmak, additional defensive fortifications were being built and trenches filled with concrete. Russian officers have also started to evacuate their families from Tokmak. Fortifications were observed on the southern approach from Robotyne, the axis of Ukrainian forces.
- The bunkers will add additional protection for Russian soldiers and command and control elements from heavy Ukrainian artillery and Uncrewed Aerial Vehicle attacks. The concrete likely reinforces the trench systems in advance of the potentially wet and muddy conditions in the coming weeks. These fortifications and evacuations likely reflect Russia's concern of a further Ukrainian breakthrough.

INTELLIGENCE UPDATE

- On 01 October 2023, the Russian Black Sea resort town of Sochi was struck by uncrewed aerial vehicles for the second time in two weeks. Media reporting stated a helicopter landing site at Sochi Airport was damaged.
- The previous attack on 20 September 2023 caused a large fire at an oil storage facility, near the airport. It was the first recorded strike on the area since Russia's invasion of Ukraine.
- Sochi is a popular holiday destination, heavily associated with Russian President Vladimir Putin, and serves as the summer base for many of Russia's elite. Strikes near the city mark a further example of the war directly affecting Russia's population well away from the Ukrainian border.

INTELLIGENCE UPDATE

- The Velyka Novosilka sector, west of the Donetsk Oblast town of Vuhledar, has become relatively quiet over the last four weeks, with fighting much less intense from its height in June-July 2023. Over the summer, Ukraine almost certainly liberated at least 125 square kilometres of territory on this axis.
- Ukrainian operations in this sector have tied down elements of the 36th and 5th Combined Arms Armies of Russia's Eastern Military District, preventing them from reinforcing other areas. It has also drawn in a number of Russian airborne units.
- While this axis has stabilised, Russian forces likely remain in a defensive posture to guard against possible future Ukrainian offensive operations. It is unlikely there will be a significant drawdown of Russian forces from this axis in the next six weeks.

INTELLIGENCE UPDATE

- Russia's partnership with Iran has strengthened in recent years, almost certainly accelerated by Russia's invasion of Ukraine. International isolation has forced Russia to redirect its foreign policy efforts towards previously less-desirable partnerships to gain diplomatic, economic and military support.
- Iranian military aid to Russia's campaign in Ukraine has included hundreds of one-way attack uncrewed aerial vehicles (OWA UAV) and artillery munitions. Iranian OWA UAVs have been a core element of Russia's campaign of long-range strikes into Ukraine. This arrangement has now been extended to include assembling and production of these UAVs, under licence, in a facility in Russia.
- Russo-Iranian diplomatic and economic ties have also intensified. Russia's engagement with Iran through multinational forums will almost certainly increase following Iran's recent admission into the Shanghai Cooperation Organization, and its invitation to join the economic BRICS forum. Iran recently claimed that Russia had invested USD \$2.76bn into Iran in 2022-23. Economic ties are highly likely to deepen as Russia seeks to mitigate sanctions.

INTELLIGENCE UPDATE

- Russia's presidential election will take place on 17 March 2024. Russian President Vladimir Putin will almost certainly run again, despite having not yet publicly announced his intention to do so. There is speculation that Putin's election campaign will begin informally in November 2023.
- While elections in Russia are subject to interference and control by the Kremlin, they remain a core tool of political legitimisation. It is almost certain that Putin's election campaign will focus on the theme of Russia as a separate civilisation in need of defence from external enemies – a narrative frequently used to justify the state's actions and Putin's consolidation of power.
- In the build-up to the election, the Kremlin will almost certainly seek to minimise unpopular policy moves. It is therefore highly unlikely that any further mobilisation wave will be implemented before the March 2024 presidential election.

INTELLIGENCE UPDATE

- The Russian military is facing a mental health crisis. In December 2022, Russian psychologists identified approximately 100,000 military personnel suffering from post-traumatic stress disorder (PTSD). This number is almost certainly now higher as the Russian military fails to provide sufficient rotation and recuperation from the battlefield.
- This was a problem highlighted by multiple commanders, including the former 58th Combined Arms Army's General-Major Ivan Popov who was relieved of command in July 2023.
- There are additional indications that doctors in Russia are sending military personnel who are unfit to fight to the front. Appeal claims against Russian military medical commissions are higher in 2023 than they were in 2022, with many cases denied or claims abandoned.
- With a lack of care for its soldiers' mental health and fitness to fight, Russia's combat fighting effectiveness continues to operate at sub-optimal levels.

Mental health – a big lesson there.