



Royal United Services Institute of Nova Scotia

Dispatches

27 January 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).

Renewal of RUSI(NS) Membership

An email was sent to members on 4 January announcing renewal of membership for 2023. If you have not received the email, please check your spam folder and, if necessary, contact RUSI(NS).

RUSI(NS) Survey 2023

A survey with a few questions has been sent by email to RUSI(NS) members asking for their comments about the Institute. Your feedback is important to the running of RUSI(NS) – please take the time to provide your thoughts about how we are doing.

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.

15 February, Wednesday - RUSI(NS) Distinguished Speaker Brigadier-General G Michael Adamson, Commander 3 Canadian Space Division, titled “3 Canadian Space Division.” 1300-1500. Via Zoom. To register, email RUSINovaScotia@gmail.com - indicate whether you are RUSI(NS) or, if not, of what department/ agency, unit, association or company you are a member. Put “RUSI(NS) Distinguished Speaker 15 February 2023 Registration” as the subject line of your email.

Advance reading:

The Growing Complexity of Space: Implications for Security and Stability

https://lop.parl.ca/sites/PublicWebsite/default/en_CA/ResearchPublications/202210E

new: Government of Canada supports commercial space launches in Canada

<https://www.canada.ca/en/transport-canada/news/2023/01/government-of-canada-supports-commercial-space-launches-in-canada.html>

21 February, Tuesday - Georgetown University Wargaming Society presentation "The Politics of Play: Wargaming with the US Military." Noon-1400 EST. Online. To register: <https://www.eventbrite.com/e/the-politics-of-play-wargaming-with-the-us-military-tickets-415461174557>

7 March, Tuesday - Georgetown University Wargaming Society presentation "Malign: Gaming Influence in the Information Age." 1800-200 EST. Online. To register: <https://www.eventbrite.com/e/malign-gaming-influence-in-the-information-age-tickets-484966807777>

Publications:

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

RUSI(NS) Information Note "Armoured Fighting Vehicles," 17 January 2023
<https://rusi-ns.ca/armoured-fighting-vehicles/>

RUSI(NS) Information Note "RCN Ship Pennant Numbers," 9 January 2023
<https://rusi-ns.ca/rcn-ship-pennant-numbers/>

Canadian Marine Industries and Shipbuilding Association *On Watch*, 18 January 2023
<https://www.cmisa.ca/cpages/on-watch-current>

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

Military Institute of Windsor *Communiqué*, Volume XLI, Number 1, January 2023

Naval Association of Canada recording "Seaspan Shipyards" by Denis Stevens, VP of Government Relations for Seaspan, 9 January 2023
https://youtu.be/XHKH6MQa_eE

Royal Alberta United Services Institute *Dispatches*, January 2023
<https://www.rausi.ca/component/acym/archive/178-rausi-january-2023-dispatches>

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

Royal Canadian Navy *Your Navy Today* Volume 5 Issue 7
<https://www.canada.ca/en/navy/corporate/navy-news/your-navy-today/volume-5-issue-7.html>

Royal United Services Institute of Vancouver Island *Newsletter*, Volume 55, 1st Quarter 2023.

New: Royal United Services Institute of Victoria (Australia) *Defence Update*, Volume 16, Issue 6, 23 January 2023

Royal United Services Institute of Victoria (Australia) *Quarterly Newsletter*, Volume 21, Issue 4, December 2022





St. Francis Xavier University Mulroney Institute of Government *Canadian Naval Review* Volume 18, Number 2 (2022)

Veterans Affairs Canada *Salute!* January 2023

<https://www.veterans.gc.ca/eng/about-vac/news-media/salute/2022-12>


Tweeted by @RUSI NS:

RUSI(NS) tweets may also be viewed by clicking on the Twitter icon at <https://RUSI-NS.ca>. To have something tweeted or retweeted, email RUSINovaScotia@gmail.com.

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| <p>"Upgrades to Inuvik runway are primarily focused on improving airfield's suitability to operate larger & heavier aircraft, which is important enhancement to @NORADCommand & @RCAF_ARC ability to operate in North & #Arctic" https://www.canada.ca/en/departement-national-defence/news/2023/01/departement-of-national-defence-to-increase-funding-contribution-for-inuvik-airport-runway-upgrades.html</p> |  |
| <p>"Casualty evacuation: Fine-tuning @RCAF_ARC Canadian Medical Emergency Response Team (CMERT) capability" https://skiesmag.com/features/casualty-evacuation-fine-tuning-rcaf-cmert-capability/ Tactics, techniques & procedures developed for forward casualty aeromedical evacuation by @CanadianForces helicopters & medical staff</p> |  |
| <p>"The only way the government, both politicians and bureaucrats, can be held accountable for such crucial decisions is through maximum transparency" https://nationalpost.com/opinion/andre-pratte-less-politics-more-transparency-could-help-fix-canadas-military-procurement #DefenceProcurement, especially of major capital projects, needs to be clear of politics & to be transparent</p> |  |
| <p>RUSI @RUSI_org 23 Jan tweeted and RUSI(NS) retweeted: @New report, 'Navies and Economic Warfare: Securing Critical Infrastructure and Expanding Policy Options' by Dr Sidharth Kaushal is out now! (Navies and Economic Warfare https://rusi.org/explore-our-research/publications/occasional-papers/navies-and-economic-warfare)</p> <p><i>From the RUSI tweet thread:</i> "Our report examines what the naval function should be in the context of contemporary economic warfare, and how the contributions of navies to economic warfare will need to evolve in the face of emerging strategic and operational realities."</p> |  |

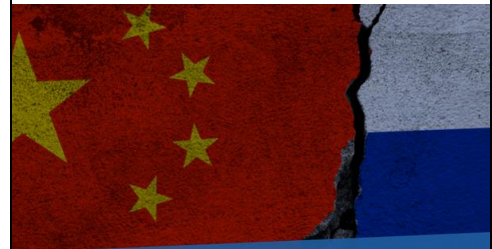
"The report seeks to answer a number of questions, including how the ways in which #navies defend economic interests at sea will have to evolve as the structure of modern economies makes them increasingly reliant on physical infrastructure such as undersea cables and pipelines."

From a colleague: An interesting read. Unlike most legacy studies, it explores the topic of economic warfare from the new context of deep sea warfare, offensive UXV mining systems, global ISR and the challenges of dealing with the relevant adversarial capabilities. Although UK focused, it also extrapolates nicely into the challenges of North American continental defence and expeditionary ops.

STRATCOMCOE @STRATCOMCOE 23 Jan tweeted and RUSI(NS) retweeted: The worsening of relations between RU and the West has pushed RU towards CN putting information operations of both countries on the forefront of the threats assessment for #NATO. Might the #InfoOps of two countries be coordinated? Read more here 

<https://stratcomcoe.org/publications/dragons-roar-and-bears-howl-convergence-in-sino-russian-information-operations-in-nato-countries/258>

(Dragon's Roar and Bear's Howl: Convergence in Sino-Russian Information Operations in NATO Countries?)



DRAGON'S ROAR AND BEAR'S HOWL:
CONVERGENCE IN SINO-RUSSIAN INFORMATION OPERATIONS IN NATO COUNTRIES?

CDA Institute @CDainstitute 23 Jan tweeted and RUSI(NS) retweeted: "The way current events are unfolding, the CAF will be hard-pressed to make meaningful military contributions, which will only grow tougher. We are essentially allowing our current systems to go into block obsolescence."

(Looking Ahead: What are Canada's Most Pressing Security Challenges in 2023?)

<https://cdainstitute.ca/looking-ahead-what-are-canadas-most-pressing-security-challenges-in-2023/>



Canadian Centre for Cyber Security @cybercentre_ca 24 Jan tweeted and RUSI(NS) retweeted: Cyber threat actors use misinformation, disinformation, and malinformation to try and influence the decisions of Canadians. Read about how threat actors use social media to publish misleading or inaccurate information.

<https://cyber.gc.ca/en/guidance/national-cyber-threat-assessment-2023-2024#a10>

(Cyber threat actors are attempting to influence Canadians, degrading trust in online spaces

National Cyber Threat Assessment 2023-2024)



"Canada considering sending 4 Leopard tanks to Ukraine: sources" <https://www.cbc.ca/news/politics/trudeau-donate-leopard-battle-tanks-1.6725868> Donating only 4 older model Leopards would be more a sign of support than adding to combat capability but every tank helps & they could be used for training Ukrainian tank crews



Maritime Security

Sal Mercogliano (WGOW Shipping) @mercoglianos 24 Jan tweeted: 1/My initial review of @NavyLeagueUS & @CMS_Washington new 2023-204 Maritime Policy. Great opening statement on "America's economic prosperity and national security depend on free access to global sea lanes and oceanic shipping routes."

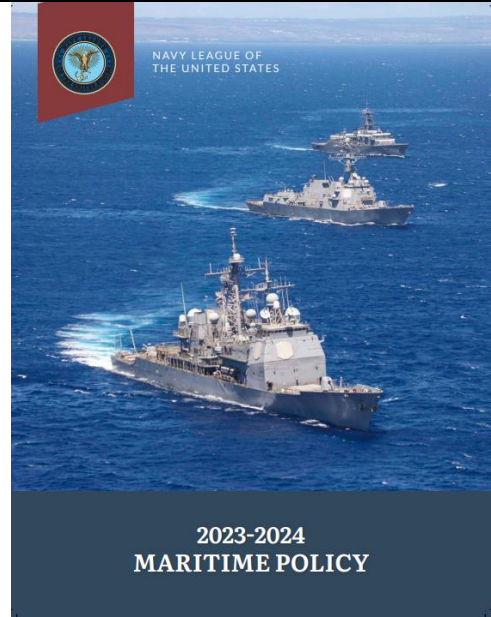
<https://twitter.com/mercoglianos/status/1617898501375152128>

Read the tweet thread.

Navy League of the United States 2023-2024 Maritime Policy

https://www.navyleague.org/wp-content/uploads/2023/01/Maritime-Policy_2023_FINAL.pdf

Could just as easily be: "Canada's economic prosperity and national security depend on free access to global sea lanes and oceanic shipping routes."



Armour - Abrams

M1A2 SEPv3 Abrams @delfoarse 25 Jan tweeted (<https://twitter.com/delfoarse/status/1618274021505925120>): Many people concern Ukrainian Army cannot maintain and sustain M1 Abrams. AGT1500 Turboshift Gas Turbine is widely believed to be a problem because it drains fuel a lot. But it's not true. Fuel efficiency of M1 Abrams tank got significantly improved compared to the past.



A tweet thread worth reading about fueling the Abrams.

Posted on Facebook "Royal United Services Institute of Nova Scotia":

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

Davos 2023: Moldova's Sandu asks Allies for Air Defence, Says Russia is Trying to Destabilize the Country

<https://www.reuters.com/world/europe/moldova-says-requests-air-defence-systems-stems-russia-destabilising-efforts-2023-01-19/>

Moldova is one the poorest countries in Europe. It has also been hampered by Russian agents provocateurs who essentially seized approximately one sixth of the country and have called this Russian protectorate "Transnistria." Moldova has been hit twice by missiles, either Russian missiles or Ukrainian air defence missiles, which ran out of fuel and crashed within Moldovan borders. Moldova has a case here for some basic protection.



Russian has an estimated 1800 troops in Moldova supported by a Transnistrian militia of nearly 6000 troops. Russia has maintained control for over 30 years. Russian efforts have continued in Moldova itself, calling on pro-Russian political parties and criminal elements to help destabilize the country. So far they have been unsuccessful in removing the elected pro-Western government. A destabilized Moldova is not in the best interests of the West.

Arctic naval refuelling station set to open in 2024, 9 years behind schedule

<https://www.cbc.ca/news/canada/north/nanisivik-naval-base-nunavut-2023-update-1.6717971>

"The federal government's Arctic naval base (Nanisivik), when it's finally ready, is supposed to serve as a refuelling station for the Navy and other government ships. The station, according to the federal government, is meant to help protect Canadian sovereignty in the Arctic."



Canada needs more to develop more infrastructure (ports, airfields, depots) in our Arctic and North for the good of the people there and for the defence, security and safety (sovereignty) of the region.

Britain's new undersea cable protection ship arrives

<https://ukdefencejournal.org.uk/britains-new-undersea-cable-protection-ship-arrives/>

Less than half a year to convert a civilian vessel for military purposes. Highlights the utility of procuring civilian vessels through transfer for defence and security roles.



'Subsea/seabed warfare/operations' (protection of telecommunications and power cables on the sea bottom, etc.) is getting the attention it has long deserved. What plans are there within Canadian government departments to identify, take up from trade if necessary, and employ vessels for subsea operations? Are there vessels in Canadian control that can be modified for such operations?

Gotta find a better term than 'mother ship.' Drone carrier or control ship?

Anand's Kyiv pledge more about political optics than what Ukraine needs to fight

<https://nationalpost.com/opinion/canada-tanks-pledge-playing-politics-ukraine>

"Roshel's Senator APC is a civilian armoured vehicle designed for law enforcement; it would stop a bullet but is not intended to be used in combat zones."



Roshel calling a Senator variant an 'Armoured Personnel Carrier' (<https://roshel.ca/products/law-enforcement/senator-apc/>) looks to be more to differentiate the vehicle from the Roshel Senator 'Emergency Response Vehicle' variant (<https://roshel.ca/products/law-enforcement/senator-erv/>). The APC variant is designed "specifically for law enforcement and border patrol applications." Not an armoured personnel car as the military would judge; see RUSI(NS) Information Note 'Armoured

Fighting Vehicles" (<https://rusi-ns.ca/armoured-fighting-vehicles/>). The Senator, both variants, appears more to be an 'armoured car.'

Is Canada not sending its tanks to Ukraine because they're broken?

<https://nationalpost.com/opinion/is-canada-not-sending-its-tanks-to-ukraine-because-theyre-broken>

A bit speculative, especially as one reader's response was to post a current picture of Canadian Leopards exercising on a Canadian range. Still, a good point. There is often reporting of aircraft availability for operational missions (with, at times, the percentage being low) - what is the status of Canada's armour fleet? The official website (<https://www.canada.ca/en/army/services/equipment/vehicles.html>) isn't helpful: no numbers.



Canada's military pulling back in Middle East as European, domestic needs rise

<https://globalnews.ca/news/9422173/canadian-military-ukraine-russia-middle-east/>

The consequences of past decisions come to roost, now affecting options for foreign policy.

Would a fast (relatively) part-fix be to invest in domestic resiliency and response capabilities? Maybe the military shouldn't be involved to the extent it has been in responses to storms, floods and the like.

Mobilization of Reserves and new entry people needs to be looked at more. Canada will not have the luxury of building up its capability over a long time to engage in crisis operations overseas.



Brazil must allow its own toxic aircraft carrier to dock

<https://allaboutshipping.co.uk/2023/01/20/brazil-must-allow-its-own-toxic-aircraft-carrier-to-dock/>

"Three months after its return to Brazil following Turkey's rejection to scrap it, the toxic aircraft carrier SÃO PAULO continues to be towed in circles off the coast of Pernambuco state, Brazil. The Brazilian Environment Agency (IBAMA) and Brazilian Navy have so far failed to provide the vessel with a safe mooring place despite a Salvage Master inspector having declared the ship is taking on water and needs repair."



This would make an interesting scenario for a multi-government department 'staff exercise.' How would Canadian departments collaborate to respond to a former Canadian ship (especially if it were a former warship) that was too contaminated to be accepted elsewhere to be broken? Hopefully Canada would not have let such a ship sail/be towed in the first instance, but?...

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A press release 21 Jan was headlined "Brazilian Navy suddenly seizes its old warship forcing it to sea" and stated: "The former Brazilian Aircraft Carrier named SÃO PAULO, laden with asbestos, PCBs and other toxic waste materials, was seized on Friday and forced out to sea by the Brazilian Navy, claiming

in an official notice yesterday that the move had to be done as the vessel was supposedly in imminent danger of running aground or sinking off the Brazilian coast.” Well, that was one approach/solution.

We Think We Know Why The U.S. Navy Can't Bring Back The Battleships

<https://www.19fortyfive.com/2023/01/we-think-we-know-why-the-u-s-navy-cant-bring-back-the-battleships/>



No manufacturing capability to replace worn-out gun barrels, and spares all disposed. Ammunition too old to be considered safe for firing. The case here may be battleships but the lessons about procuring enough ammunition and spares early in a program can apply elsewhere, whether it be warship, armoured vehicle or fighting aircraft. Yes, there are advantages to stockpiling old equipment for use during crises but as battleships (and, these days, Russian tanks) have demonstrated, there are costs to holding on too long, and after a while it just becomes impractical. A balance has to be found (and Canada apparently disposing of military equipment too quickly may be the other side of the coin).

Better to buy ammunition and spares generously when first procuring equipment, and ensure a defence industry ready to replace when necessary.

In northern Ukraine, Canadian-donated armoured vehicles are a key line of defence

<https://www.cbc.ca/news/world/ukraine-canada-armoured-vehicle-1.6718428>



"We (Roshel) build our vehicles (Senator Armoured Personnel Carriers) in industry-record time, producing four vehicles a day..."

Four armoured cars a day, good production rate. Canada needs more defence industries to be able to operate at that rate and beyond during crises, ultimately to a 'war footing.'

New Sonar For Navy Frigates Could Turn Any Ship into Submarine Hunter, Maker Says

<https://www.defenseone.com/technology/2023/01/new-sonar-navy-frigates-could-turn-any-ship-submarine-hunter-maker-says/381834/>



A modular system that can be placed on vessels of opportunity (VOOP), turning them into anti-submarine 'assets'. Demonstrated being installed on a commercial ship within 48 hours. Being able to convert civilian vessels into military sensors (by treating them as 'trucks' and 'quick installing' equipment onboard) would be a significant enhancement to our anti-submarine capabilities. In a crisis, Canada won't have the luxury of years to build purpose-designed warships (and when we did in the Second World War, it wasn't long before the corvettes we were building needed to be improved into frigates, and post-war quickly paid off/disposed). The availability of VOOP (and COOP - craft of

opportunity, smaller vessels for roles such as inshore mine hunting) needs to be staff studied, trialed and exercised.

"...whether linking a merchant ship to a military sensor network would make it more of a target. The classification of civilian vessels into legitimate targets and illegal ones is an unsettled area (1) of international law; much depends on circumstances. The U.S. Navy's own guidance (2) indicates that merchant ships 'incorporated into, or assisting in any way, the intelligence system of an enemy's armed forces' may be 'attacked and destroyed' by aircraft or surface warships 'with or without prior warning.'"

So maybe VOOP with add-on sensors should be commissioned into naval service, with crews enrolled in the Forces. Wouldn't be the first time Canada has done that (thinking Fishermen's Reserve).

The Royal Canadian navy has trialed 'sensor in a box,' operating a containerized 'tail' (passive acoustic sensor) off HMCS *Harry DeWolf*.

Notes: 1. U.S. Policy on Targeting Enemy Merchant Shipping: Bridging the Gap Between Conventional Law and State Practice (<https://digital-commons.usnwc.edu/cgi/viewcontent.cgi?article=1744&context=ils>)

2. NWP 1-14M The Commander's Handbook on the Law of Naval Operations (linked from the article)

Why Seablindness, Not Putin, Could Be The Biggest Energy Threat

<https://gcaptain.com/why-seablindness-not-putin-could-be-biggest-energy-threat/>



"The biggest threat to global well-being is that we – the world – forget the heroic role shipping has played in stabilizing global energy, food, and the supply chain."

"We must not forget the immense contribution of shipping to our global stability and security..." "We must recognize the importance of maritime leadership and the need for future collaboration ... to ensure the full employment and safety of earth's greatest natural resource: our seas."

Seablindness is a disease that afflicts many countries, Canada included. This is a large continent-spanning country, but so much of our trade, including from the US, comes by water. We need to know the weaknesses of global maritime trade as they affect us, and what needs to be done to improve our maritime strengths.

U.S. Weapons Industry Unprepared for a China Conflict, Report Says

<https://www.wsj.com/articles/u-s-weapons-industry-unprepared-for-a-china-conflict-report-says-11674479916>



"The study also suggests reassessing American requirements for replenishing its stockpiles, creating a strategic munitions reserve and determining a sustainable munitions procurement plan to meet current and future requirements."

Recommendations that Canada should consider, too.

Australia buys 'potent and powerful' sea mines to deter China

<https://www.smh.com.au/politics/federal/australia-buys-potent-and-powerful-sea-mines-to-deter-china-20230119-p5ce1d.html>

Mines are an under-appreciated, and potent, naval weapon. The Royal Canadian Navy has mine-countermeasures capabilities. Does it have a capability to lay mines in defence of Canadian (or allied) ports and shores? What stockpile of mines, if any (and that's a question what with so much current reporting about lack of munition reserves in Western countries), does Canada have? What staff study might be buried in the Navy's files looking at the matter of mining?

See graphic near end of Dispatches.



Faced with Foreign Interference, How Should Democracies Respond?

<https://www.cigionline.org/articles/faced-with-foreign-interference-how-should-democracies-respond/>

"...FI (Foreign Interference) takes place when influence crosses a certain threshold. The Canadian Security Intelligence Service Act defines this threshold (<https://laws-lois.justice.gc.ca/eng/acts/C-23/section-2.html>) as 'activities within or relating to Canada that are detrimental to the interests of Canada and are clandestine or deceptive or involve a threat to any person.'"



Other Sources:

#Arctic

Exploring military security issues in the Arctic

<https://chathamhouse.soutron.net/Portal/Public/en-GB/RecordView/Index/202842>

The Arctic Component of Russia's New Maritime Doctrine

<https://www.wilsoncenter.org/blog-post/no-17-arctic-component-russias-new-maritime-doctrine>

#economic warfare

Sanctions as potent yet unwieldy weapons of war

<https://engelsbergideas.com/book-review/sanctions-as-potent-yet-unwieldy-weapons-of-war/>

#hybrid warfare

Watching out for populism: Authoritarian logics as a vulnerability to hybrid threat activity

<https://www.hybridcoe.fi/publications/hybrid-coe-working-paper-22-watching-out-for-populism-authoritarian-logics-as-a-vulnerability-to-hybrid-threat-activity/>

#Indo-Pacific

Danger zone: the coming conflict with China

<https://www.aspistrategist.org.au/from-the-bookshelf-danger-zone-the-coming-conflict-with-china/>

#strategy

A U.S.-China War over Taiwan: How Bad Could It Get?

<https://www.19fortyfive.com/2023/01/a-u-s-china-war-over-taiwan-how-bad-could-it-get/>

#wargaming

Wargames Can't Tell Us How to Deter a Chinese Attack on Taiwan—But Different Games Might

<https://www.lawfareblog.com/wargames-cant-tell-us-how-deter-chinese-attack-taiwan%E2%80%94different-games-might>

#information operations

21st Century Information Environment Trends Out to 2040

<https://openpublications.org/> (*NATO OPEN Project, worth checking the site*)

and

<https://img1.wsimg.com/blobby/go/f1074002-f794-4e57-99b2-7a26df3e3daa/downloads/21st%20Century%20Information%20Environment%20Trends%20Ou.pdf>

From Fake News to Fake Views: New Challenges Posed by ChatGPT-Like AI

<https://www.lawfareblog.com/fake-news-fake-views-new-challenges-posed-chatgpt-ai>

The US Global Engagement Centre tweeted about a counter:

Mystery Synthetic Text Detector 3000

https://www.tswg.gov/Projects/I2C/Mystery_Synthetic_Text_Detector_3000.html

John Spykerman of the GEC presented to RUSI(NS) in Sep 21: "Information Resilience: Countering Russian Propaganda and Disinformation" https://rusi-ns.ca/information_resilience/

#intelligence

How spies, soldiers and the public should use open-source intelligence

<https://www.economist.com/leaders/2023/01/18/how-spies-soldiers-and-the-public-should-use-open-source-intelligence>

Intelligence, Surveillance and Reconnaissance

<https://www.gov.uk/government/publications/intelligence-surveillance-and-reconnaissance-jdn-123>

#maritime affairs

Navy League of the United States 2023-2024 Maritime Policy

https://www.navyleague.org/wp-content/uploads/2023/01/Maritime-Policy_2023_FINAL.pdf

Worth comparing. Good comments at tweet thread:

<https://twitter.com/mercoglianos/status/1617898501375152128>

#maritime security

China's Maritime Control

<https://www.americanpurpose.com/articles/chinas-maritime-control/>

"Recent supply-chain woes pale in comparison to the havoc China could wreak on international commerce in the event of war over Taiwan."

The utility of navies to protect maritime trade, and advantage of states possessing seapower (naval and civil).

#naval warfare

Are there flaws in the US Navy's distributed maritime operations?

<https://www.defensenews.com/opinion/commentary/2023/01/23/are-there-flaws-in-the-us-navys-distributed-maritime-operations/>

Back to the Future: Resurrecting 'Air/Sea Battle' in the Pacific

<https://breakingdefense.com/2023/01/back-to-the-future-resurrecting-air-sea-battle-in-the-pacific/>

#Russia-Ukraine War

Military briefing: Western allies at 'inflection point' on tank deliveries to Ukraine

<https://www.ft.com/content/7fec5fc-a9a2-4cf4-acb0-fdb9e091ae97>

Ukraine: can the German Leopard change its spots?

<https://www.iiss.org/blogs/military-balance/2023/01/ukraine-can-the-german-leopard-change-its-spots>

The Skyrocketing Costs for Russia's War Effort

<https://jamestown.org/program/russias-skyrocketing-costs-for-war-effort/>

The winner of a war is not necessarily the one with the bigger battalions, but the one with the bigger bucks.

How Ukraine Fought Against Russia's Air War

<https://www.lawfareblog.com/how-ukraine-fought-against-russias-air-war>

Why Russia's war in Ukraine today is so different from a year ago

<https://theconversation.com/why-russias-war-in-ukraine-today-is-so-different-from-a-year-ago-198023>

Peace by exhaustion in Ukraine

<https://www.aspistrategist.org.au/peace-by-exhaustion-in-ukraine/>

In Ukraine, Smartphones Are Thickening the Fog of War

<https://www.worldpoliticsreview.com/ukraine-tanks-aid-war-russia-nato-europe/>

#intelligence

The high-tech hunt for bombers targeting civilians

<https://www.theglobeandmail.com/world/article-ukraine-russia-dnipro-kremenchuk-missile-attack/>

OSINTing in support of war crime investigations.

#armour

Provision of American or European tanks to Ukraine

<https://twitter.com/WarintheFuture/status/1616220284067147776>

<https://en.rattibha.com/thread/1616220284067147776>

The Great Tank Debate

<https://mickryan.substack.com/p/the-great-tank-debate>

The new weapon the U.S. is giving Ukraine isn't a tank, but it is a problem for Russia
<https://www.nbcnews.com/think/opinion/ukraine-russia-war-sees-bradley-non-tanks-enter-fray-rcna64963>

Military briefing: Western allies at 'inflection point' on tank deliveries to Ukraine
<https://www.ft.com/content/7fec5fc-a9a2-4cf4-acb0-fdb9e091ae97>

The Battle Tank Dilemma
<https://frontline.online/defence/featured/12045-The-Battle-Tank-Dilemma>

Ukraine: can the German Leopard change its spots?
<https://www.iiss.org/blogs/military-balance/2023/01/ukraine-can-the-german-leopard-change-its-spots>

Ukraine war reignites debate over what constitutes a 'tank'
<https://www.stripes.com/theaters/europe/2023-01-23/what-is-a-tank-8859538.html>

#economic warfare

Russia Shifting Import Sources Amid U.S. and Allied Export Restrictions

<https://silverado.org/news/report-russia-shifting-import-sources-amid-u-s-and-allied-export-restrictions>

#space #NATO

One More Step for NATO's Space Centre of Excellence

<https://act.nato.int/articles/nato-space-coe-mou>

#wargaming

A Compendium of Wargaming Terms

<https://www.guwargaming.org/wargamingresources/a-compendium-of-wargaming-terms>

Other:

Royal Canadian Navy Our Navy Today - Volume 6 Issue 1

<https://www.canada.ca/en/navy/corporate/navy-news/our-navy-today/volume-6-issue-1.html>

Note: Defensive cyber operations in the information and cyber warfare era

Security Affairs Committee Synopsis

O Canada

There are those in Canada that China rates as influential friends; in quiet places also known as "useful idiots," these are found in business, academia and certain political elites. Our intelligence services have been forthright in bringing some of these issues to the attention of our political leadership, to little avail. It does not give one comfort that apparently some eleven candidates from both the Liberal and Conservative parties have received money and financial backing from China's United Front. Despite this information being made available there has been no concrete action to prevent this type of activity in the future. A lack of transparency on the part of our own government on this issue is troubling. New legislation is needed to track former senior civil servants and politicians from accepting employment such as we have seen with former Prime Minister Jean Chretien as a legal advisor to

China or people like Dominic Barton, the former Ambassador to China, during the period of the "Two Michaels."

In keeping with the theme, it would be interesting to know, whether any after action report was produced for the "Two Michaels" fiasco. It took the US to actually provide a solution and not our government. What has Canada done to prevent such an occurrence in the future? The actions of the Chinese Communist Party have been hostile to Canada for some time, yet its ambassador feels free to ask that a free press not be allowed to cover his remarks at a Canadian university. It seems that Canada almost without any consideration is providing the CCP opportunities to take action against us. Some thought is required before taking counter-action against the activities of CCP. There should be no free rides and certainly no opportunity to speak or write without a suitable review by a free press, those wishing to point out the issues glossed over or lied about by CCP officials as we have seen in the recent past.

On another issue entirely, there is an interesting foreign affairs problem that has just occurred. Canada's foreign minister announced that Canada was facilitating talks to stop the conflict between Cameroon's English minority and the French majority in that country. The article by Canadian Press on 24 January 2023 stated that three meetings have already taken place. The conflict has killed more than 6k people and displaced close to a million. Unfortunately, the Cameroon Tribune published a story including a letter from the Minister of Communications stating that the Government of Cameroon has not authorized any external party to assist or conduct negotiations. Essentially, the point of the article was that any solution would be by the Cameroonian people. Any solution to Cameroon's conflict is good, but this looks more like the right hand doesn't know what the left hand is doing. It will be interesting to see how this actually turns out.

Canadian tanks for Ukraine is being considered. In an interview former Defence Minister Peter MacKay suggested that Canada should send up to fourteen tanks. While the writer is a big fan of the former minister and met him often, this is a time that I have to disagree. We do not have enough tanks to equip a single regiment and still maintain maintenance and training stocks - even 80 is insufficient. Canada never bought enough tanks to meet even minimum requirements of a properly equipped Canadian Army. There are many other countries better able to supply tanks than Canada. What Canada could do is send a large number of recently retired vehicles including M113 armoured personnel carriers, Coyote reconnaissance vehicles, Bison armoured support vehicles, and older LAV-3 instead of turning them into monuments, etc. This would provide nearly two thousand armoured vehicles that should be available, unless Canada once again leaves them to rot. It would be interesting to know where these vehicles are at present.

Australia

Australia is a country that has to take its security and defence seriously as China under the CCP has taken a hostile approach to Australia including shadowing Australian warships and aircraft, "arresting" Australian citizens, interfering with Australian elections, paying off Australian politicians, economic warfare against Australian imports, etc. Strange, sounds like Canada, except we don't pay attention. Australia has determined that they must be able to defend themselves from a hostile China. They have developed a well-rounded navy with both blue- and green-water capabilities supported by an air force that is highly capable with a vast number of critical capabilities including fighters, strike, long range surveillance, transport, tankers, air early warning, aerial electronic warfare and intelligence gathering aircraft, all in suitable numbers. The army is too small to ever protect Australia, thus it is more important to keep it relatively light but with enough firepower to deal with small incursions into the areas of responsibilities while the other services deal with the overall attack.

The main feature of Australia's plan is to hit any potential enemy well away from the shores of Australia (and probably New Zealand.), without support if necessary. Australia is now considering purchase of a B-21 fleet of strategic bombers, land based long range missiles and most recently they have just announced the purchase of modern sea mines to protect Australia's coastal straits and passages. Australia means business.

Australia has also made diplomatic efforts to mitigate against increasingly hostile actions by China. This is a policy also followed by Canada. They deal with China on significant issues of mutual concern including climate change and pollution, yet keep a very firm relationship with the US and others on security and defence issues through the Quad (US, India, UK and Japan) and AUKUS (US, UK and Australia). AUKUS is a particularly useful program as it deals with more than submarines, and includes intelligence electronic surveillance, artificial intelligence, radar technology and several other areas. Canada is definitely on the outside of these agreements. Canadian politicians have failed to grasp that hard power is vital to support soft power initiatives. Australia has learned, Canada remains blissfully oblivious to a changing world.

New Zealand

New Zealand has been surprised by the resignation of their Prime Minister Jacinda Arden effective this past Tuesday. Her replacement is Mr Chris Hipkins, the only candidate. He has been a member of the cabinet as the Minister of Education and Police. There is to be a general election in New Zealand in October of this year.

This week the New Zealand Air Force retired the P-3C Orion fleet of 5 Squadron. The aircraft has been with the air force since the early 1980s. It is being replaced with four P-8 Poseidon, based on the 737 aircraft. The first aircraft has been delivered and is in the US to train NZ aircrews. It is currently in use by the US, UK, Australia and Norway, and ordered by Germany as well to replace their maritime patrol fleet. Canada is yet to sort this out, even though we have one of the largest ocean areas to patrol. The Aurora fleet has dwindled to 14, its replacement is supposed to dwindle yet again to between eight and twelve a far cry from over one hundred fifty air force and navy aircraft available for the same task in the late 1960s. Although a more capable aircraft, it still takes approximately four to keep one in the air. It is something Canadians need to think about as our Arctic becomes more open.

Belarus

In a rather bizarre announcement, the self-appointed President of Belarus Alexander Lukashenko stated that Ukraine offered him a non-aggression pact. If true it would be a popular move with the population of Belarus, which is against any participation in the war. A significant number of Belarus citizens are fighting for Ukraine, something that Lukashenko is all too well aware of at present. His country is occupied by up to 30k Russian troops, most of whom are missile troops and logistics. Although vehicles and equipment are entering Belarus there do not seem to be heavier fighting vehicles. Belarus partisans have continued to create difficulties for the occupying troops and the regime. The bottom line is that Belarus would rapidly swing to support Ukraine if the population had their way. Lukashenko knows that he would not survive either way. Putin would not allow his last ally to leave. As one Polish general officer once stated in a conversation, the Russians are our brothers, one can choose one's friends, but not your family.

Russia-Ukraine War

The war on the ground is virtually static especially around the city of Bakhmut and the town of Soledar. Russia has made some gains but the area in question is of marginal value. The big question is

how many troops is Russia losing and how quickly they can be replaced. So far, Russia seems to be using troops with little training in a manner straight out of the Second World War. It has been brutally expensive in lives with the Ukrainians estimating over 120k dead and more than 300k wounded or missing. The number is somewhat a nebulous figure, it is likely somewhat lower but not by much. Russia does not seem to have a casualty evacuation system and many apparently die where they fall. Even a minor wound can fester and cause death under those circumstances. Failure to take care of one's troops is a major problem for Russians and it will lead to disciplinary and worse problems in the long term. Even Russia does not have that many troops.

The south also remains in a static position, however, superior artillery with longer ranges is making life difficult for the Russians. Russia continues to pound civilian targets with limited military value. Russia is sending more troops to the area but these seem to be eaten up with defensive preparations. It is widely circulated that the south will be the focus of the next large scale Ukrainian attack with the view of making the Crimea untenable for Russia. It will also sever most of the logistics for all Russian forces. If Ukraine is successful in taking most of the east bank of the Dnipro River, the Kerch Bridge will be well within range of Ukraine's artillery systems. Maintaining Crimea and the bases will become difficult at best.

In the north, Ukraine keeps chipping away at the Svatova-Kremmina line with some success despite a large number of Russian attacks along the same line. Generally both sides seem to be holding but recently Russian command centres in the area have left for positions further back. In the near term, it appears Ukraine may be able to break this line. The outcome would likely mean a withdrawal of Russian forces towards Luhansk oblast, however, their logistics and communication lines would be under severe pressure.

The real change will be the arrival of a vast amount of new modern Western equipment for Ukraine including tanks, infantry fighting vehicles, armoured personnel carriers, vast quantities of modern ammunition and a lot of other support. Most of this equipment is vastly superior in capability and lethality. Germany has finally given permission to allied countries to re-export their Leopard 2 tanks as well as providing fourteen tanks themselves. Ukraine has asked for three hundred but it is highly unlikely they will get that many but they will get somewhere around one hundred modern tanks. Russia no longer has the capacity to deal with this slowly rising capability. Time is now not on Russia's side.

One interesting relatively new wrinkle is the ongoing infighting within Russian forces. Like all authoritarian regimes, Russia has developed several different types of armed forces. Until this year private military companies (PMC) such as Wagner group and Patriot group were actually illegal, however, necessity and success allowed the groups to make a case for their official recognition. They are now legal.

Russia has a large number of independent organizations that make the Russian ground forces including the actual ground force of the Russian Federation, better known as the Russian Army. There is also the VDV or parachute forces which are independent of the Army, Russian special forces such as Spetnez, intelligence units of the GRU or military intelligence, the FSB or the internal security troops, border guards, national guard, naval infantry as well as private military companies such as Wagner under Yevgeny Prigozhin and Patriot group owned by Sergei Shoigu. The leadership is divided in many ways although nominally all under General Gerasimov, the Russian Chief of Defence Staff and Commander of Russian forces in Ukraine. During the main battle in Bakhmut and Soledar, the infighting became very open between various factions especially between the PMC and the regular troops. New conscripts and newly mobilized troops were merely tools for the leadership with little

regard for their safety or health. This type of Russian leadership does not bode well for Russian success.

At this point neither side is winning comprehensively, however, Russian actions towards its own troops is deplorable and will likely be enough to cause major problems in the future. Troops eventually will get their way - Russian leadership will not like it then.

The Russian financial situation is not good although to look at official figures one might be impressed considering the level of sanctions. Unemployment is apparently listed at slightly more than 3%, however, many companies are putting their staff on unpaid leave or some Western companies are still paying wages for a period of time although the company no longer operates in Russia. This leads one to have a mistaken impression about the overall health of the system. Russia has also been using its oil wealth to artificially prop up the ruble. While this will work for a while, it is not sustainable and the full measure of sanctions will have an impact.

Russia has not conducted further major missile attacks within the past week.

China

China is celebrating Chinese new Year and the arrival of spring this week. According to some media outlets nearly 2b trips by various means will be taken in one of the world's largest voluntary migrations to see family and friends. It is also the first break with no Covid regulations. The results have been little short of disastrous with wide spread infections across the population with some estimates being as high as one billion people affected. Chinese media are not broadcasting this information and the CCP have been less than transparent with their citizens. The outcome of this policy are visible from space as satellites show the huge line ups for crematoria and videos of stacks of bodies, and news that coffins are impossible to find. The rural and elderly population were not vaccinated in many cases, it is only now there is a push, however, it is far too late for this to be effective. Early estimates of one million to 1.8 million deaths may be far too low.

During the lockdowns, few people had babies for a three year period, which will also have a long term effect on the overall health of the state. This is even worse than the effects of the one child policy over thirty years. The result is likely going to be an accelerated decrease in the size of the population which saw the first officially declared decrease in population this year. The official figure is under one million, but Chinese demographers living in the US have suggested that the Chinese population has been decreasing for over a decade and the actual population numbers are much lower.

The wide spread illness and deaths will have an effect on the population and if the doomsayers are correct, deaths will far exceed the birthrate this year as well. It has been presumed for some time that China was vastly under reporting Covid and lockdown related deaths. These deaths also include ones created by a lack of resources to treat cancer patients on time or deal with a heart attack and other critical diseases that normally would not be fatal. China has forgotten what truth looks like and their official figures are fictions at best.

Chinese surveillance capabilities within China have vastly ramped up over the period of the pandemic. During demonstrations held immediately before the 7 December 2022 dropping of the Covid rules, many demonstrators were covered by surveillance systems whether fixed or hand held. Shortly after the demonstrations, demonstrators started to disappear, arrested by Chinese police using material taken from surveillance systems. The important point is this type of demonstration is legal as it was a memorial to victims of a fire in a locked down building killing ten folks. Firemen were prevented from entering the building because of Covid lockdown systems. Even Xi has stated that "reaction to a

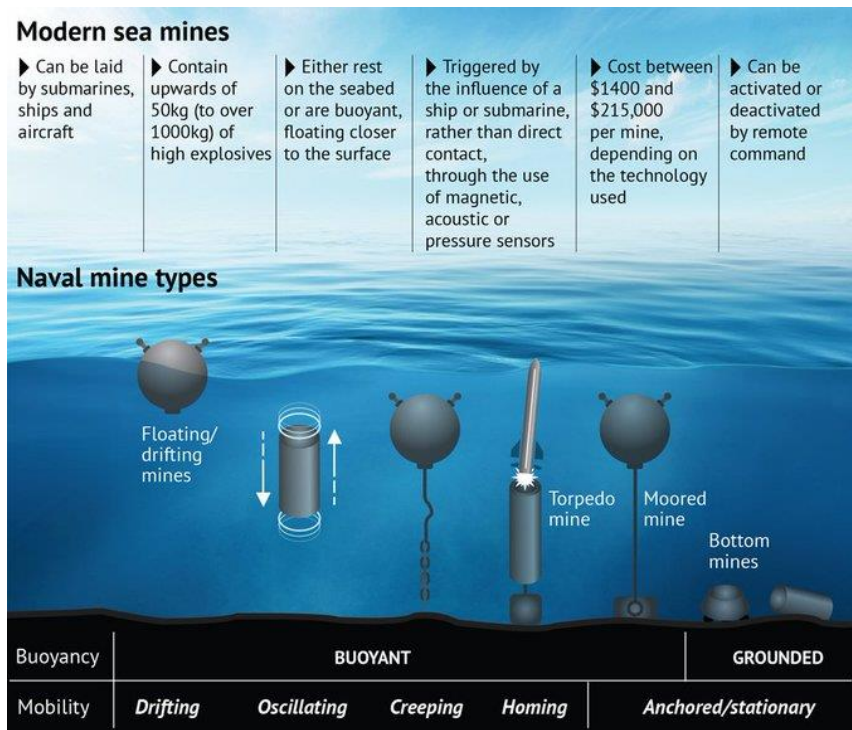
negative event to fellow citizens is not against the law." The police took no notice and demonstrators were arrested and intimidated. Even the Party Chairman cannot get police to stop their intimidation tactics.

China's economy is still sick and continues to deteriorate. Some sectors like property development are likely never to recover and this will have ongoing unintended consequences. It seems hard to believe that any thinking person would invest in China at this time.

A Final Note

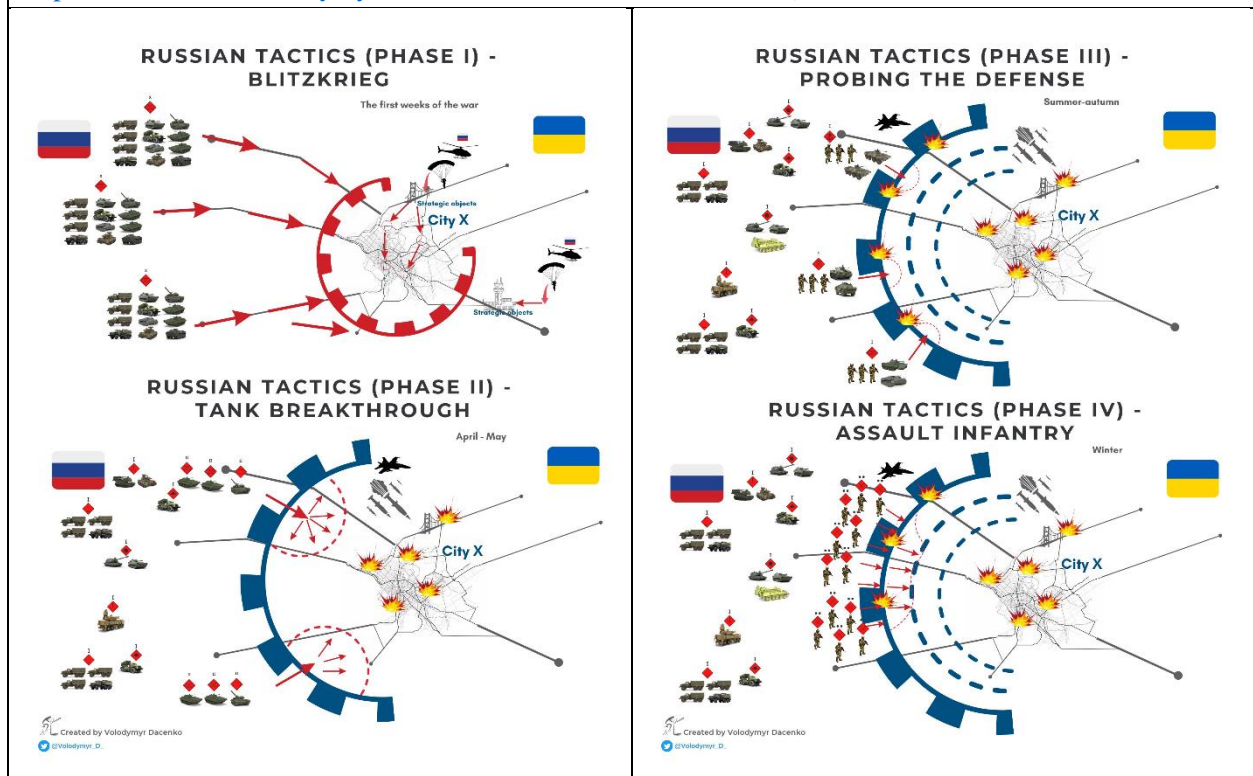
All four of the major authoritarian regimes have major difficulties, in some cases this will cause a history changing event as they collapse. Russia and Iran are especially volatile at present. China's massive debt including likely major financial strains across the economy and handling of the pandemic also make China more vulnerable to internal strife. North Korea is another story not because of its internal strife but rather its inability to act in a logical way or even feed itself. It is forever causing its own difficulties by doing activities that cause the imposition of further sanctions. Its leadership is unhealthy and more than slightly warped, yet its brutal methods keep a very docile population in check. A sudden illness coupled with a patriarchal society may not accept the leadership of Kim Jong Un's sister, widely speculated as his potential successor. Long term, not a great outlook.

The question is, what are we going to do when these countries enter a phase of uncertainty which is almost inevitable in the case of Russia and Iran's next revolution is likely not too far behind? Sitting back and letting life take its course is not a real option. Some thinking, planning and preparation have to be done, especially if nuclear stock piles have to be secured as just one example. Authoritarian regimes are not healthy or ultimately long-lived as they collapse under their own corruption. A certain candidate once stated that he admired the Chinese system because it could make quick decisions and turn things around quickly - they also can make massive mistakes quickly with disastrous consequences that will last for a long time.



Russian Way of War

Volodymyr Dacenko @Volodymyr_D_23 Jan tweeted: How Russia's tactics have changed since the beginning of the war - 4 strategies of the Russian command 1/ #russianlosses #Russiawar #UkraineRussiaWar (Read the tweet thread: https://twitter.com/Volodymyr_D_/status/1617613252988370945)



It's the ammunition, stupid...

Dimitri Alexander Simes
 @DimitriASimes
 19 Jan tweeted:
 How long will it take to replenish US weapons systems sent to Ukraine? A detailed breakdown by the Center for Strategic and International Studies in Washington, DC (@CSIS):

Table 1: Inventory Replacement Times for Key Systems

| | Number transferred to Ukraine | Production rate (year) | Manufacturing lead time (months) | Production time (months) | Total time to rebuild (months) |
|---|-------------------------------|------------------------|--|--------------------------|--------------------------------|
| 155 mm ammunition (recent rate) | 1,074,000 | 93,000 | Inventory rebuild not possible because of U.S. training requirements | | |
| 155 mm ammunition (surge rate) | 1,074,000 | 240,000 | 12–18 | 44 | 59 (5 years) |
| 155 mm precision munition—Excalibur (recent rate) | 5,200 | 1,000 | 22 | 56 | 84 (7 years) |
| 155 mm precision munition—Excalibur (surge rate) | 5,200 | 2,400 | 22 | 23 | 48 (4 years) |
| Javelin (recent rate) | 8,500 | 1,000 | 24 | 12 | 149 (~8 years) |
| Javelin (surge rate) | 8,500 | 2,100 | 24 | 12 | 56 (~5.5 years) |
| HIMARS (recent rate) | 20 | 20 | 26 | 12 | 37 (3 years) |
| HIMARS (surge rate) | 20 | 72+ | 26 | 5 | 30 (2.5 years) |
| GMLRS (recent rate) | "Thousands" | 5,000 | 17+ | ? | ? |
| GMLRS (surge rate) | "Thousands" | 10,000+ | 17+ | ? | ? |
| Stinger (recent rate) | 1,600 | 100? | 24+ | 192 | 216 (18 years) |
| Stinger (historical rate) | 1,600 | 350? | 24+ | 55 | 79 (6.5 years) |

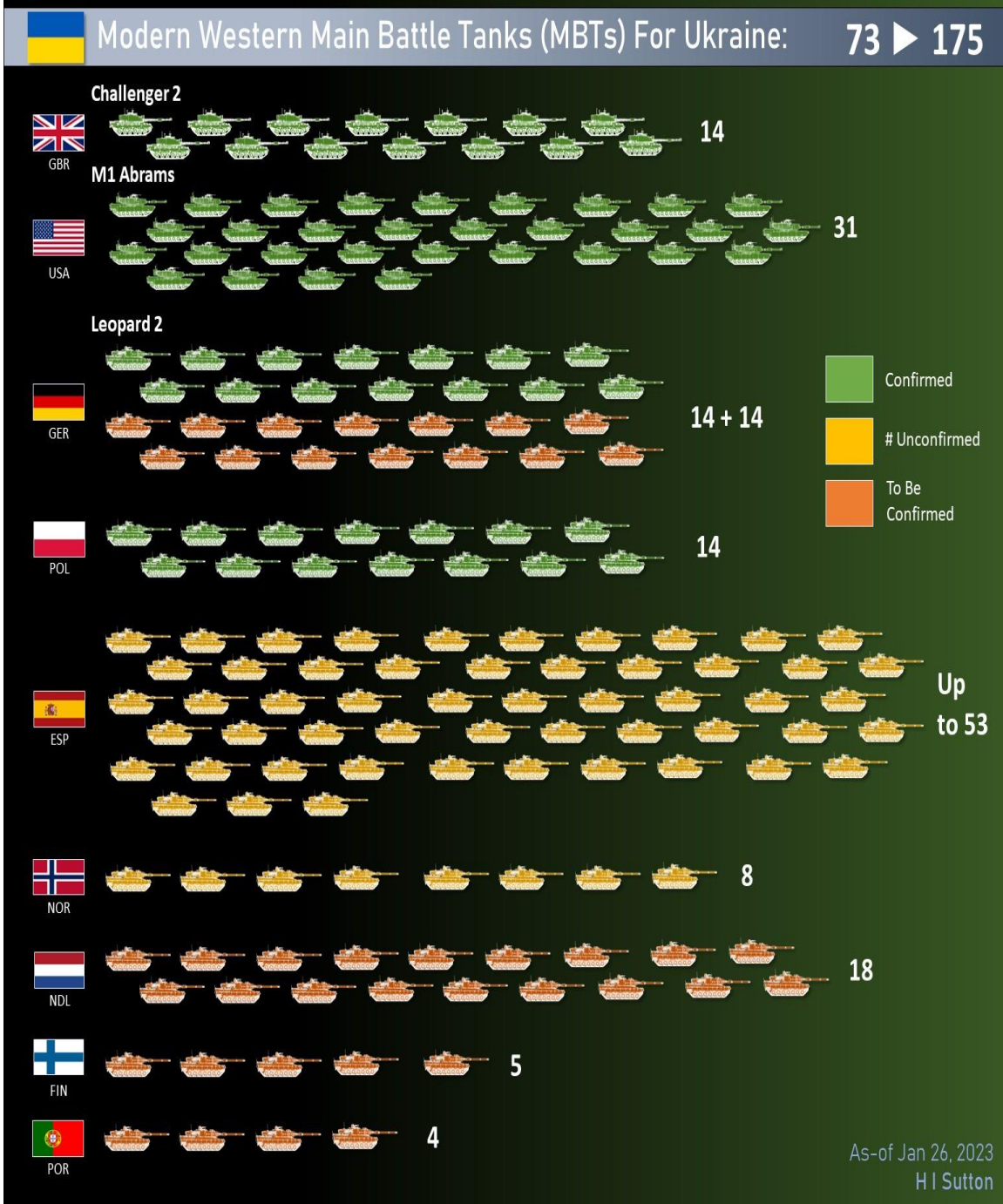
Color Key

- Unlikely to rebuild inventories within five years
- Inventory replacement within five years at low risk
- Rebuilding timeline unclear but substantial risk of low inventories and long replacement cycles

Source: Author's analysis based on multiple sources.

#Armour

H I Sutton @CovertShores 26 Jan tweeted: ***UPDATE*** Refreshed count of Western main battle tanks for #Ukraine. Challenger 2, M1 Abrams and Leopard 2... Between 73 (confirmed) and 175, excluding Canada



INTELLIGENCE UPDATE

- On 17 January 2023, Russian Defence Minister Sergei Shoigu announced plans for major changes to the structure of the armed forces, to be implemented between 2023 and 2026. This included an increase to 1.5 million personnel – an 11% increase on top of the previously announced expansion to 1.35 million.
- Shoigu also announced the re-establishment of Moscow and Leningrad military districts, a partial return to the Soviet era organisation of forces in Western Russia. A new army corps is to be established in Karelia, near the Finnish border.
- Shoigu's plans signal that the Russian leadership highly likely assesses that an enhanced conventional military threat will endure for many years beyond the current Ukraine war. However, Russia will highly likely struggle to staff and equip the planned expansion.

INTELLIGENCE UPDATE

- General Valery Gerasimov, Russia's Chief of the General Staff and newly appointed commander in Ukraine, has likely started his tour with a drive to improve deployed troops' day-to-day discipline. Since he took command, officers have been attempting to clamp down on non-regulation uniform, travel in civilian vehicles, the use of mobile phones, and non-standard haircuts.
- The measures have been met with sceptical feedback. However, some of the greatest derision has been reserved for attempts to improve the standard of troops' shaving. Officials in the Donetsk People's Republic, described the prioritisation a 'farce' that would 'hamper the process of destroying the enemy'. Wagner proxy group owner, Yevgeny Prigozhin criticised military leadership, suggesting that, 'war is the time of the active and courageous, and not of the clean-shaven.'
- The Russian force continues to endure operational deadlock and heavy casualties; Gerasimov's prioritisation of largely minor regulations is likely to confirm the fears of his many sceptics in Russia. Along with Defence Minister Sergei Shoigu, he is increasingly seen as out of touch and focused on presentation over substance.



RUSSIA'S CLAIM:

Russia claims that Ukraine is using its nuclear power plants to house military equipment, raising the risk of a nuclear catastrophe that would affect neighbouring countries.

BASED ON CANADIAN FORCES INTELLIGENCE COMMAND ANALYSIS:

- Independent observers from the International Atomic Energy Agency have found no indication that Ukraine is using its nuclear power plants as military sites.
- Since seizing Ukraine's Zaporizhzhia Nuclear Power Plant in the early days of the invasion, Russian occupation forces have continually stationed military assets in and around the facility.
- Russia's claims are likely intended to generate confusion about the risk of Western military support to Ukraine, while deflecting attention from Russian behaviour at a major nuclear installation.



INTELLIGENCE UPDATE

- Russia has likely completed training of the 2nd Guards Motor Rifle Division (GMRD) in Belarus, which had been carrying out training since autumn 2022. The majority of the 2nd GMRD has now transferred back to Russia, before almost certainly being recommitted to operations in Ukraine.
- The 2nd GMRD is an element of the 1st Guards Tank Army and suffered major losses in the opening phases of the conflict. It is now primarily made up of mobilised personnel operating older equipment taken from storage. Its combat effectiveness will likely be limited despite several weeks of training.
- There is a realistic possibility that other Russian units are being rotated into Belarus for similar training, and that Russia will continue this model to regenerate and prepare units to maintain its force in Ukraine.

Journalist's Guide to Tank Identification

Military

Journalists

Tank



Tank

BMP



Tank

MT-LB



Tank

SAU



Tank

BTR-T



Tank

ZSU



Tank

AT-T



Tank

IMR



Tank

Volvo 740



Tank