



Royal United Services Institute of Nova Scotia Dispatches 27 December 2019

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

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

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

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

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

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

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

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

Events:

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

22 January, Wednesday - Distinguished Speaker Brigadier-General Roch Pelletier, Commander 5th Canadian Division. The title of his talk is "Commander 5th Canadian Division

– Army Reserve Update." 1130-1330. Royal Artillery Park Officers' Mess. Note this is the third Wednesday of the month, not our normal second.




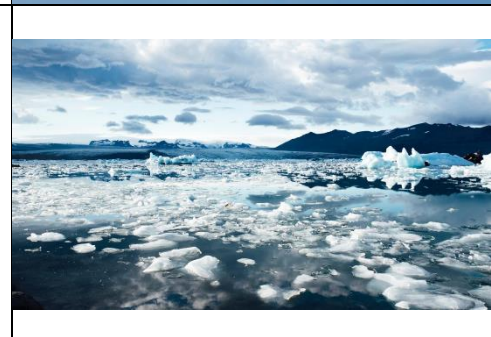
12 February, Wednesday - RUSI(NS) *Annual General Meeting*. Noon start. Royal Artillery Park Officers' Mess.

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

18 March, Wednesday - Distinguished Speaker Dr Jonathan Fowler, Saint Mary's University, about archeological surveys of fortifications and burial grounds of old Halifax. 1130-1330. Royal Artillery Park Officers' Mess (site of one of the 1749 forts).

15 April, Wednesday – (to be confirmed) Chief of Halifax Regional Police Dan Kinsella, about policing in HRM. 1130-1330. Royal Artillery Park Officers' Mess.

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

<p>CAN  National Shipbuilding Strategy #NSS is well progressed https://www.cbc.ca/news/SOMNIA-1.5402285 Considering duration of such programs, yes, is time for gov't to provide clarity on longer term vision. What build beyond 2040? Need #submarines (manned and/or drone) at least (Quebec shipyard at the heart of the Mark Norman case poised to become federal builder)</p>	
<p>Canadian Forces @CanadianForces 20 Dec tweeted: We have formally accepted the first Canadian FWSAR aircraft on December 18 in Spain http://forces.gc.ca/en/business-equipment/fixed-wing-snr.page RUSI(NS) retweeted: Looking forward to naming ceremony for #RCAF Fixed Wing Search & Rescue CC295 aircraft</p> <p>See also: https://www.facebook.com/CanadianForces/posts/2738188623074989</p>	
<p>Considering impending ubiquity of #drones in defence/security services, providing capability to #CanadianRangers would considerably enhance their presence/surveillance https://ipolitics.ca/2019/12/20/amid-arctic-sovereignty-questions-canadian-rangers-still-see-few-credible-reports-of-unusual-activity/ Besides, more R&D/trial use of #Arctic drones would be good (Amid arctic sovereignty questions, Canadian Rangers still see few credible reports of unusual activity also Canada's Sovereignty in the Arctic</p>	

<https://www.ourcommons.ca/Committees/en/FAAE/StudyActivity?studyActivityId=10158962>

Availability of people (pilots, techs) is critical part of whether an air force is robust
<https://www.msn.com/en-ca/news/canada/contractors-to-help-air-force-manage-shortage-of-experienced-pilots-technicians/ar-BBYbJWu> Good move by #RCAF to contract for instructors. Besides, good use of experienced people who still want to fly, fix planes
(Contractors to help Air Force manage shortage of experienced pilots, technicians)



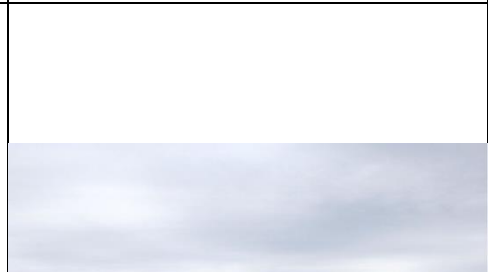
Hmm, imagine sending in a 'picket screen' of saildrones to measure conditions/sense activity in area prior to conflict ops or disaster response <https://www.cbc.ca/news/canada/british-columbia/new-fleet-of-robotic-vessels-off-west-coast-will-improve-weather-monitoring-1.5395837> Or as part of blockading sanctioned area #drones #USV
(New fleet of robotic vessels off West Coast will improve weather monitoring)



Canadian Global Affairs Institute @CAGlobalAffairs 22 Dec tweeted and RUSI(NS) retweeted: Why has there been a large uptake of #cybersecurity and #disinformation campaigns from #Russia and #Iran? Ferry de Kerckhove explores in his latest CGAI policy perspective:
https://cgai.ca/cyber_security_the_threats_from_russia_and_the_middle_east
(Cyber-Security: The Threats from Russia and the Middle East)




David Pugliese @davidpugliese 22 Dec tweeted: My latest article....Deal allows Canada to continue operating aging RCAF VIP aircraft in U.S. airspace
(Deal allows Canada to continue operating aging RCAF VIP aircraft in U.S. airspace)
<https://ottawacitizen.com/news/national/defence-watch/deal-allows-canada-to-continue-operating-aging-rcaf-vip-aircraft-in-u-s-airspace>



RUSI(NS) retweeted: RUSI(NS) Paper "New Air Surveillance System" on Automatic Dependent Surveillance – Broadcast (ADS-B) <https://rusi-n.ca/new-air-surveillance-system/>

David Pugliese on Twitter: "Since two Challenger aircraft are not ADS-B compliant, they may be subject to suboptimal flight routings in parts of U.S. That could mean that the Canadian aircraft might need to be rerouted or take a different flight path if the level of air traffic in an area is high."
<https://t.co/Wn76W9z7Uo>"



National Post @nationalpost 21 Dec tweeted: Back to the drawing board for missing heavy icebreaker: Coast Guard <https://nationalpost.com/news/canada/missing-heavy-icebreaker-back-on-drawing-board-coast-guard/>
 (Back to the drawing board for missing heavy icebreaker: Coast Guard <https://nationalpost.com/news/canada/missing-heavy-icebreaker-back-on-drawing-board-coast-guard/>)
 RUSI(NS) retweeted: Heavy Icebreaker: Very large multitasked icebreaker (approx 130m length) capable of sustained operations in #Arctic Archipelago over 2 seasons/year & escort operations Gulf of St Lawrence & east coast of Newfoundland. Capability to deliver variety of Gov't of CAN  programs



Army U Press on Twitter: "North Korean Hot Spot - A compilation of articles from Military Review, the Combat Studies Institute, monographs from students at the Command and General Staff College, and selected works from other sources discussing North Korea. <https://t.co/wHOR9RmOsq> <https://t.co/PwTEX2oTye>" / Twitter
 (<https://twitter.com/ArmyUPress/status/1209111832977444869>)
 (Primer on Sociopolitical and Military Developments in North Korea <https://www.armyupress.army.mil/Special-Topics/World-Hot-Spots/North-Korea/>)

Posted on Facebook Royal United Services Institute NS with comments:

Canadian Forces had valuable 'insights' in Afghanistan, defence minister says following damning U.S. report <https://ipolitics.ca/2019/12/19/canadian-forces-had-valuable-insights-in-afghanistan-defence-minister-says-following-damning-u-s-report/>



"...the Canadian Armed Forces had a better understanding of the realities of the conflict than its closest allies."

Canada to join NATO's cyber defence research centre

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



"Canada could outline its position on how international law applies vis-à-vis cyber conflict, as many of its allies...have done. Both this and an international strategy for cyberspace, which Canada also lacks, would provide important signalling for allies and adversaries alike."

The latest U.S. national defense bill expands focus on Russia and China in the Arctic

<https://www.arctictoday.com/the-latest-u-s-national-defense-bill-expands-focus-on-russia-and-china-in-the-arctic/>



"It contains several Arctic provisions — from analyzing the ways in which Russian and Chinese activities in the region should inform U.S. policies to locating one or more Arctic strategic ports to preparing for potential disasters in the region."

U.S. Navy Gets New Heavily-Armed Port Patrol Boat

<https://www.maritime-executive.com/article/u-s-navy-gets-new-heavily-armed-port-patrol-boat>



"The Navy specified a 'visual-deterrent' appearance for the new vessel, which the design satisfies with a futuristic and 'menacing' faceted hull profile above the waterline."

Leads one to recall Soviet warships bristling with weapons; Italian cruisers with sleek, graceful lines; and the tall pagoda-like superstructures of Imperial Japanese Navy battleships. (Okay, some of us fondly recall the appearance of Royal Canadian Navy 'Cadillacs' when they were first built, but that wasn't a 'threatening' look.) Visual deterrence has not been a major operational requirement for Western navies, and certainly is not a term that has come up in writings about the Royal Canadian Navy. Still, naval types instinctively understand the utility of a ship's appearance as part of the spectrum of 'signalling' national messages. You want to have the properly looking warship sitting off someone's coast when you want that state to pay attention!

China's first unmanned cargo ship makes maiden test

<http://www.navyrecognition.com/index.php/news/defence-news/2019/december/7811-china-s-first-unmanned-cargo-ship-makes-maiden-test.html>



Some states start with unmanned naval ships, and some with civil. Whichever way, you can figure on the world's oceans will be getting a lot busier with drone vessels. And a strong drone merchant navy could be very useful in direct and indirect support of naval operations.

Developments in Ship Recycling in 2019

<https://maritime-executive.com/editorials/developments-in-ship-recycling-in-2019>



RUSI(NS) has written a number of pieces on ship breaking (e.g., "Breaking Up Former Canadian Warships" <https://rusi-ns.ca/breaking-up-former-canadian-warships/>), what with the Royal Canadian Navy and Canadian Coast Guard ships sent in recent years to the breakers here in Nova Scotia. Further to this developments article, a check was made of the status of Canada's ratification of the Hong Kong Convention (full title "Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009")(HKC). What appears to be the appropriate government website "(Agreement on safe and environmentally sound recycling of ships: Hong Kong Convention" <https://www.canada.ca/en/environment-climate-change/corporate/international-affairs/partnerships-organizations/safe-recycling-ships-hong-kong.html>) provides no indication of when ratification might occur. A colleague noted that India has recently signed onto the HKC (see "an a new ship-recycling law help India regain its status as the world's top dismantler of vessels?" <https://economictimes.indiatimes.com/industry/transportation/shipping/-transport/can-a-new-ship-recycling-law-help-india-regain-its-status-as-the-worlds-top-dismantler-of-vessels/articleshow/72918468.cms>). Ratification is getting close - it requires China or both Pakistan and Bangladesh for the HKC to be ratified. The HKC is not relevant to Canada or Europe as Canadian breakers operate to compliance and protection requirements more stringent.

Industry briefing questions Ottawa's choice of guns, defence systems for new frigates

<https://www.cbc.ca/news/politics/frigate-gun-radar-canadian-navy-1.5405054>



Challenges with defence procurement is a bit of a self-inflicted wound. Self, meaning the Canadian electorate and the governments we elected in the last century. A good procurement system needs capable people, and without a reasonable flow of major projects in years past, the result was not enough procurement staff with the right experience. We are reaping that harvest now.

See: The Defence Procurement Outlook for Canada's 43rd Parliament

https://www.cgai.ca/the_defence_procurement_outlook_for_canadas_43rd_parliament

"...in 1989, Canada entered a decade of budget cuts and military downsizing which greatly curtailed the availability of recapitalization funding for DND. Without funding, few big procurements were put forward and much recapitalization was deferred (despite identified need). Life extension and modernization programs, rather than replacements, were initiated for major combat fleets, and innovative solutions such as contracted pilot training were launched, in part due to the financial shortfalls. With much less big kit to buy, and amid public service reductions across government, the procurement workforce was reduced by more than half in some instances."

China is becoming an Atlantic sea power, says US military analyst

<https://www.scmp.com/news/china/diplomacy/article/3042868/china-becoming-atlantic-sea-power-says-us-military-analyst>



"Chinese deployment of naval power beyond maritime East Asia likely reflects Beijing's incorporation of certain elements of an 'exterior' strategy into its overall approach for coping with the US threat."

Hmm, Canada better not pivot too fast and far from the Atlantic to the Pacific. Might find ourselves out-flanked (if an army term can be applied to the maritime domain).

Des navires de patrouille de l'Arctique pourraient porter secours lors d'ouragans

<https://www.rcinet.ca/regard-sur-arctique/2019/12/23/navire-patrouille-arctique-ouragans-caraibes-catastrophes-naturelles-hmcs-harry-dewolf-hmcs-margaret-brooke-transport/>



The French translation of Arctic and Offshore Patrol Ship used by the Royal Canadian Navy (RCN) is "Navires de patrouille extracôtier et de l'Arctique" (<http://www.navy-marine.forces.gc.ca/fr/flotte-unites/npea-multimedia.page?>). The name, with its "Arctic and Offshore/extracôtier et de l'Arctique," is so written to emphasize that the ships are deployable both in the Arctic and anywhere globally (likely for coastal/offshore operations). That point was recently emphasized by the Commander RCN in "Canada's new Arctic patrol ships could be tasked with hurricane relief" (<https://www.cbc.ca/news/politics/arctic-offshore-patrol-ships-frigates-irving-canadian-navy-1.5404650>).

Also, the name of a RCN ship should be written in French as "le NCSM SHIPNAME" rather than "le HMCS SHIPNAME" as NCSM (navire canadien de sa majesté) is French for HMCS (Her Majesty's Canadian Ship). Also, one never writes a definite article before a pronoun.

Pentagon Remains Bullish on 3D Printing, Despite Regulatory ‘Slog’

<https://www.defenseone.com/technology/2019/12/pentagon-remains-bullish-3d-printing-despite-regulatory-slog/162074/>



Is there a Canadian DND office responsible for 3D printing/laser additive manufacturing, and what legal and regulatory issues are being faced?

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

 RUSI
www.rusi.org

LOOKING AHEAD

End of year message from the
Royal United Services Institute
December 2019

<https://mailchi.mp/rusi.org/looking-ahead-to-167321?e=a539211a30>



Contractors to help Air Force manage shortage of experienced pilots, technicians

<https://www.msn.com/en-ca/news/canada/contractors-to-help-air-force-manage-shortage-of-experienced-pilots-technicians/ar-BBYbJWu?ocid=se>



Top US General Defends Afghanistan War

https://www.defenseone.com/politics/2019/12/top-us-general-defends-afghanistan-war/162057/?oref=defense_one_breaking_nl



Quebec shipyard selected to be new partner under shipbuilding program - will construct six icebreakers

<https://ottawacitizen.com/news/national/defence-watch/quebec-shipyard-selected-to-be-new-partner-under-shipbuilding-program-will-construct-six-icebreakers>



UK government to launch 'radical assessment' of Britain's place in the world

https://www.defensenews.com/global/europe/2019/12/19/uk-government-to-launch-radical-assessment-of-britains-place-in-the-world/?utm_source=Sailthru&utm_medium=email&utm_campaign=EBB%2012.20.19&utm_term=Editorial%20-%20Early%20Bird%20Brief



Back to the drawing board for missing heavy icebreaker: Coast Guard

<https://nationalpost.com/news/canada/missing-heavy-icebreaker-back-on-drawing-board-coast-guard>



Canada's new Arctic patrol ships could be tasked with hurricane relief

<https://www.cbc.ca/news/somni-1.5404650>



The Space Force is officially the sixth military branch. Here's what that means.

https://www.airforcetimes.com/news/your-military/2019/12/21/the-space-force-is-officially-the-sixth-military-branch-heres-what-that-means/?utm_source=Sailthru&utm_medium=email&utm_campaign=EBB%2012.23.19&utm_term=Editorial%20-%20Early%20Bird%20Brief



Japan approves record defense

https://www.navytimes.com/news/your-navy/2019/12/20/japan-approves-record-defense-budget/?utm_source=Sailthru&utm_medium=email&utm_campaign=EBB%2012.23.19&utm_term=Editorial%20-%20Early%20Bird%20Brief



New NATO surveillance drones bet on Italian safety ruling

https://www.defensenews.com/smr/nato-2020-defined/2019/12/22/new-nato-surveillance-drones-bet-on-italian-safety-ruling/?utm_source=Sailthru&utm_medium=email&utm_campaign=EBB%2012.23.19&utm_term=Editorial%20-%20Early%20Bird%20Brief



'Good life' still left in Canada's submarines: Navy commander

<https://www.msn.com/en-ca/news/canada/good-life-still-left-in-canadas-submarines-navy-commander/ar-BBY8euy?ocid=se>



Canada's new frigates could take part in ballistic missile defence — if Ottawa says yes

<https://www.cbc.ca/news/SOMNIA-1.5407226>



RCAF accepts first new search-and-rescue plane despite issue with manuals

<https://www.cbc.ca/news/SOMNIA-1.5407890>



French military kills 33 terrorists in Mali in its first drone strike

https://www.upi.com/Defense-News/2019/12/23/French-military-kills-33-terrorists-in-Mali-in-its-first-drone-strike/4851577129128/?sl=1&utm_source=Sailthru&utm_medium=email&utm_campaign=EBB%2012.24.19&utm_term=Editorial%20-%20Early%20Bird%20Brief



Breaking News 23 December 2019

<https://link.govexec.com/view/56c715c86e4adc434d8b5279bapbc.1f9t/38fba6f1>



Canadians won't be allowed to work on portions of new Canadian spy planes because of U.S. security regulations

<https://ottawacitizen.com/news/national/defence-watch/canadians-wont-be-allowed-to-work-on-portions-of-new-canadian-spy-planes-because-of-u-s-security-regulations>



407 Squadron returns to 19 Wing Comox following Operation NEON

<https://www.comoxvalleyrecord.com/community/407-squadron-returns-to-19-wing-comox-following-operation-neon/>



Documents show myriad federal agencies crafting plan for homeless veterans

<https://o.canada.com/pmn/news-pmn/canada-news-pmn/documents-show-myriad-federal-agencies-crafting-plan-for-homeless-veterans/wcm/49dd2e54-8a0b-4c2d-9ec9-8fa8709a89d5>



Putin says Russia is leading world in hypersonic weapons

https://www.militarytimes.com/news/your-military/2019/12/24/putin-says-russia-is-leading-world-in-hypersonic-weapons/?utm_source=Sailthru&utm_medium=email&utm_campaign=EBB%2012.26.19&utm_term=Editorial%20-%20Early%20Bird%20Brief



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

#A2R

What Happened to Retention?

<https://wavellroom.com/2019/09/17/what-happened-to-retention-military-army-career/>

The (UK) Army Has a Revolutionary New Talent Management System. Now We Have to Make it Work.

<https://mwi.usma.edu/army-revolutionary-new-talent-management-system-now-make-work/>

#artificial intelligence

Defense Innovation Board's AI Principles Project

<https://innovation.defense.gov/ai/>

and

Summary of the 2018 (US) Department of Defense Artificial Intelligence Strategy

<https://media.defense.gov/2019/Feb/12/2002088963/-1/-1/1/SUMMARY-OF-DOD-AI-STRATEGY.PDF>

and

AI Principles: Recommendations on the Ethical Use of Artificial Intelligence by the Department of Defense

https://media.defense.gov/2019/Oct/31/2002204458/-1/-1/0/DIB_AI_PRINCIPLES_PRIMARY_DOCUMENT.PDF

#China

The Global Expansion of China’s Military 2019

<https://jmss.org/article/view/69450/53632>

A New Consensus Is Emerging On How to Handle The Risk from China’s 5G

<https://www.defenseone.com/technology/2019/04/new-consensus-emerging-how-handle-risk-chinas-5g/156355/>

#drones

Armed Drones for the Royal Canadian Navy

<https://www.cfc.forces.gc.ca/259/290/405/305/manley.pdf>

#information operations

Three Swords Interview

http://jwc.nato.int/images/stories/threeswords/Interview_DIRECTORStratComCOE.pdf

Director of the NATO Strategic Communications Centre of Excellence interview on disinformation, Russian bots, and ongoing influence activities targeting the Baltics.

The West Isn't Ready for the Coming Wave of Chinese Misinformation: Report

<https://www.defenseone.com/technology/2019/03/researcher-west-isnt-ready-coming-wave-chinese-misinformation/155400/>

Beyond Hybrid War: How China Exploits Social Media to Sway American Opinion

<https://www.recordedfuture.com/china-social-media-operations/>

#international relations

Report to Congress on Great Power Competition and National Defense

<https://news.usni.org/2019/12/20/report-to-congress-on-great-power-competition-and-national-defense>

Strategic Opportunity in an Era of Change or: How Australia Can Learn to Stop Worrying and Love the Coming Multipolar World Order

<https://mwi.usma.edu/strategic-opportunity-era-change-australia-can-learn-stop-worrying-love-coming-multipolar-world-order/>

#land warfare

Operational Effect: The Argument for a British Corps

<https://uklandpowe.com/2018/11/09/operational-effect-the-argument-for-a-british-corps/>

Interesting, the discussion about effectiveness of divisions.

#location data #surveillance

How Your Phone Betrays Democracy

<https://www.nytime.com/interactive/2019/12/21/opinion/location-data-democracy-protests.html>

#reading

Christmas #PME: Looking for something to read?

<https://wavellroom.com/2019/12/11/christmas-pme-reading-list/>

Army University Press

<https://www.armyupress.army.mil/>

#space

(US) Space Force Is Go for Launch, But 'Thousands' of Decisions Remain

<https://www.defenseone.com/technology/2019/12/space-force-go-launch-thousands-decisions-remain/162070/>

Other:

Government Executive

Government Executive e-magazine

<https://www.govexec.com/insights/>

Some epubs available at the website (or request from RUSINovaScotia@gmail.com)

Future of the Army
The Future of the Navy
The Future of the Air Force
Artificial Intelligence

A map showing **camouflage** patterns across continental Europe and others

https://www.reddit.com/r/MapPorn/comments/ciov2u/a_map_showing_camouflage_patterns_across/



A comment on the Redit site: Fellow colourblind here. I was a grown man when I realised camouflage is supposed to *actually* hide things, and it's not just a symbolic style. It just never worked on me at all, like a person in the forest with camo is exactly as visible as someone without. I've later learned they used colourblind people during WWII bombing raids to spot things hidden under camo tarps.