



Royal United Services Institute of Nova Scotia

Dispatches

22 January 2021

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:

1. a weekly Dimensions Newsletter, (formally called *Defence & Security Newsletter*) aimed at opinion leaders and industry. If you are interested in receiving this newsletter, email admin@duncom.ca; and
2. a weekly *China Open Source Newsletter* of articles curated from Chinese military-related websites based inside mainland China. If you are interested in receiving this newsletter, email RUSINovaScotia@gmail.com.

Membership Renewal. Renewal reminders have been emailed by our Secretary, Tom Birchall. If you have not yet responded (thank you if you have), please do so soon. Tom is doing a major scrub down of our membership data base. We don't want to lose you. If you are not a member and are interested in becoming one, please email RUSINovaScotia@gmail.com. Annual dues can range from zero to \$25.



Events:

To list an event in *Dispatches*, email the CIO by noon Thursday. If you have an idea for a topic or speaker, please 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.

27 January, Wednesday - RCN presentation "A portrait of an artist - Sculptor-in-Residence, Royal Canadian Navy, Mr. Christian Corbet." In 2012, Christian Corbet was named SiR for the RCN.

Attendees to this virtual presentation will have access his workshop and a once-in-a-life time opportunity to learn more about the RCN SiR and the worldwide work of Christian Corbet, widely recognized as one of Canada's pre-eminent artists. Invitation to follow.

New: 28 January, Thursday - The Institute for Security Policy at Kiel University "The Americas Series" presentation "Sealift and Merchant Marine & US Coast Guard." Via Zoom. To register, see: <https://kielseapowerseries.com/en/the-americas-series.html>.

ISPK future presentations include:

10 February, Wednesday - Americas as a Market & Mexican Naval Strategy

18 February, Thursday - Canada & USA [with RUSI(NS) member Tim Choi]

TBA - Seapower from a South American Perspective & Colombian Naval Strategy

11 March, Thursday - Brazilian Naval Strategy & China and IUU Problems in South America

New: 2 February, Tuesday - Center for Strategic & International Studies Maritime Security Dialogue "USN: Setting the Theater in the Arctic." 10:00 am - 11:00 am. To register, see: <https://www.csis.org/events/online-event-maritime-security-dialogue-usn-setting-theater-arctic>

9 February, Tuesday - Centre for International Governance Innovation "National Security, Economic Prosperity and Canada's Future." Note CSIS Director as speaker. 2:30 pm - 3:30 pm AST. Virtual. To register, see: <https://www.eventbrite.ca/e/national-security-economic-prosperity-and-canadas-future-registration-132849367033>.

New: 17 February, Wednesday - RUSI(NS) Distinguished Speaker TBA. Pencil in the afternoon. Via Zoom.

New: 25 February, Thursday - Royal United Services Institute "Sea Power Virtual Conference 2021: Transforming Maritime Forces for an Age of Persistent Competition." To register: <https://rusi.org/event/sea-power-virtual-conference-2021-transforming-maritime-forces-age-persistent-competition>.

Recent Publications:

RUSI(NS) Presentation "Renewing Coast Guard's Fleet" by Derek Moss, CCG, 9 December 2020
https://rusi-ns.ca/renewing_ccg_fleet/

RUSI(NS) Information Note "Ship Sponsor," 7 December 2020
<https://rusi-ns.ca/sponsor/>

The Military Institute of Windsor Communiqué, Volume XXXIX Number 1 January 2021 is available on request to RUSINovaScotia@gmail.com.

The Edmonton United Services Institute President's Enews January 2021 is available on request to RUSINovaScotia@gmail.com.

The United Services Institute of Nanaimo and North Island (USINNI) Newsletter Vol 29 No 1 January 2021 is available on request to RUSINovaScotia@gmail.com.

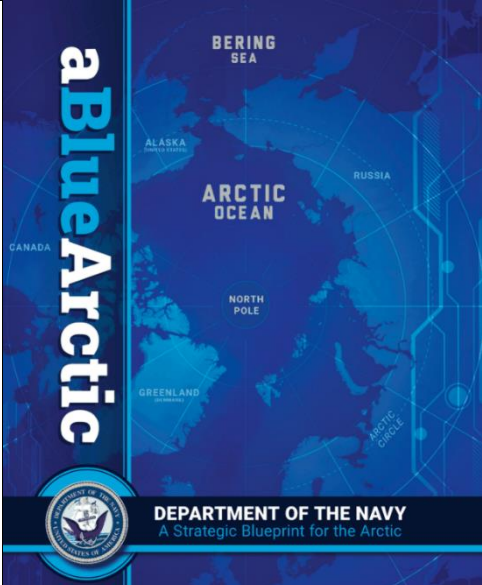


New: Royal Canadian Navy, in collaboration with Gale Force Wins (podcast hub of former RCN officers Allan Dale and Gerry Carew), Monthly Podcast Series for January 2021 "CPO1 David Steeves, CD – Chief Petty Officer of the Canadian Navy."
<https://galeforcewins.com/2021/01/19/8-cpo1-david-steeves-cd-chief-petty-officer-of-the-canadian-navy/>

New: Canada Marine Procurement Outlook 7 January 2021

<https://buyandsell.gc.ca/procurement-data/tender-notice/PW-21-00941112>

Public Services and Procurement hosted presentations by DND, DFO and CCG, and TC about upcoming procurements in small vessel construction, repair, refit and life extension, in-service support, sustainment, chartering, disposal and other special projects in the realm of marine equipment.

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>Adam Lajeunesse @adam_lajeunesse 14 Jan tweeted and RUSI(NS) retweeted: My assessment of the US Navy's new Arctic strategy (with @TimDotChoi) is now out as part of NAADSN's Quick Impact series. https://naadsn.ca/quick-impact/ (https://www.naadsn.ca/quick-impact/) Strategy itself via: "New Navy, Marine Corps Strategic Blueprint for the Arctic" https://news.usni.org/2021/01/05/new-navy-marine-corps-strategic-blueprint-for-the-arctic and at: "Blue Arctic: A Strategic Blueprint for the Arctic" https://beta.documentcloud.org/documents/20441321-arctic-blueprint-2021-final</p>	
<p>NAADSN_RDSNAA @NAADSN_RDSNAA tweeted 11 Jan and RUSI(NS) retweeted: New Quick Impact by @NAADSN_RDSNAA Graduate Fellow Tim Choi @TimDotChoi "Canada's New Arctic Drone in Context" https://naadsn.ca/wp-content/uploads/2021/01/Quick-Impact-Canadas-New-Arctic-Drone-in-Context-Jan2021.pdf</p>	
<p>CDA Institute @CDAInstitute 13 Jan tweeted and RUSI(NS) retweeted: The contract will be for a 'civilian' version of an Israeli military drone from Elbit Systems Ltd. or the acquisition of a Hermes 900 StarLiner remotely piloted aircraft system (RPAS). But won't be used for military purposes. (Canada to get a drone to patrol Arctic https://www.rcinet.ca/en/2021/01/12/canada-to-get-a-drone-to-patrol-arctic/)</p>	

Brian Santarpia @BrianSantarpia 15 Jan tweeted: Terrific news that we are beginning to vaccinate health services personnel in Halifax. It will make us more effective if called upon to support Canada's pandemic actions through Op Laser and Op Vector.

RUSI(NS) retweeted: Operation LASER #OpLASER = @CanadianForces response to worldwide pandemic situation <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/laser.html>

Operation VECTOR #OpVECTOR = #CAF support to CAN federal, provincial & territorial governments for distribution of #COVID19 vaccines <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-vector.html>



Canadian Army @CanadianArmy 15 Jan tweeted and RUSI(NS) retweeted: The @CdnArmyToday Magazine explores one company's innovation in respirators that are more accommodating to our soldiers:

<https://canadianarmytoday.com/iideas-to-solve-bad-beard-breaks/>

(IDEaS to solve bad beard breaks

<https://canadianarmytoday.com/iideas-to-solve-bad-beard-breaks/>)



NATO Association @NATOCanada 15 Jan tweeted: Why does Asia matter to @NATO? In our fall 2020 publication, @DrJoeBurton traces some of the trends that are reshaping global security.

Read more here: <https://natoassociation.ca/wp-content/uploads/2020/12/NAOC-Fall-2020-Issue.pdf>

RUSI(NS) retweeted: "#NATO and the Asia-Pacific." Area of world in which @CanadianForces (@RoyalCanNavy routinely) deploys. Worthy reading (especially Minister @NationalDefence foreword)

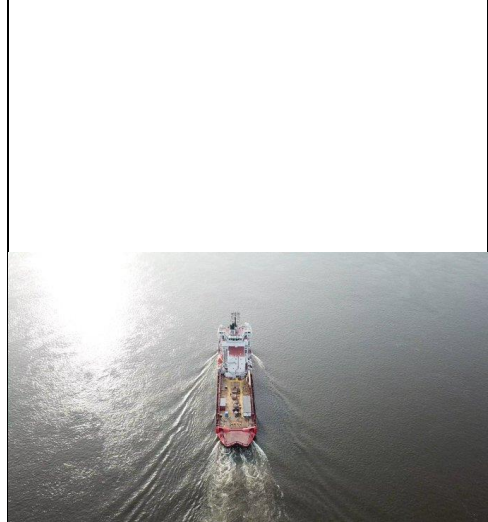


The Naval Association of Canada @navalassn 18 Jan tweeted and RUSI(NS) retweeted: Learn how the Canadian Surface Combatant is operationally focussed, value conscious and technologically-enabled, and why it is the right ship for the RCN and Canada! <http://ow.ly/Lqo050DaoWg>

(CSC: The Single Class Combatant Solution https://www.navalassoc.ca/wp-content/uploads/2021/01/Nucci_CSC_Single_Class_Combatant_Solution_v1.5_Slides.pdf)



Public Services @PSPC_SPAC 15 Jan tweeted: 1/3 What does the future of federal marine procurement look like in Canada? Last week, we held a virtual Federal Marine Procurement Outlook session to explore just that!
 #NationalShipbuildingStrategy
 2/3 This interactive session provided an opportunity for us to present the marine industry with an overview of our procurements over the next 3 years. If you missed it, fear not: we have you covered! Presentations are available here <https://buyandsell.gc.ca/procurement-data/tender-notice/PW-21-00941112>
 3/3 Be sure to check them out if you're a contractor specializing in small vessel construction, vessel repair and life extension, in-service support and other special projects, and are concerned by challenges the industry is experiencing due to COVID-19!
 RUSI(NS) retweeted: Briefs by @PSPC_SPAC, @Transport_gc, @NationalDefence (@CanadianForces, @RoyalCanNavy, #RCNavy) & @CoastGuardCAN
https://buyandsell.gc.ca/cds/public/2021/01/13/b4fff9197ea055977e6a6392f274572/procurement_outlook_complete_presentation_deck_buy_and_sell.pdf National Shipbuilding Strategy
 #NSS



Posted on Facebook Royal United Services Institute NS with comments:

Here's the latest on the US Navy's new Constellation-class frigate

<https://www.defensenews.com/digital-show-dailies/surface-navy-association/2021/01/12/heres-the-latest-on-the-us-navys-new-constellation-class-frigate/>



A comparison on how USN is messaging their next frigate. Canada (the Royal Canadian Navy, Department of National Defence, Irving Shipbuilding) is doing well messaging our next frigate, the Canadian Surface Combatant (CSC), but it'd be nice to see something as simple as this article. Good to see the graphic. It can be appreciated how a similar graphic for the CSC may be problematic until the design is finalized. The design may have progressed enough that something similar (plus black and gray silhouettes) could be published for us ship fans and for the general Canadian public.

It's the Navy's World Now: Preserving the Right Army Force Structure in an Era of Seapower's Strategic Primacy

<https://mwi.usma.edu/its-the-navys-world-now-preserving-the-right-army-force-structure-in-an-era-of-seapowers-strategic-primacy/>



If truly the geo-strategic situation calls for a focus on seapower, what should the force structure of the Canadian Armed Forces look like? Of course, we civilians and especially government authorities (elected officials) should be discussing what we want this country to be able to do internationally, and what we want our country's forces (military, police, etc.) to be able to do as part of that international engagement. Then the generals and admirals (with their juniors publicly preparing the ground, as after all the general public needs to understand what they will be asked to pay for) should be advising what our military should look like.

Chris Cavas @CavasShips 12 Jan tweeted: Key #NAVSEA presentation slides from today's #FFG #frigate briefing by program manager CAPT Kevin Smith. Note in the specs the planned service life of 25 years - which undoubtedly will be extended in real life. The plan is for a summer 2026 delivery of the first ship...

<https://twitter.com/CavasShips/status/1349042620018937858>

The image shows a presentation slide titled "FFG 62 Design Features". At the top, it says "FISCANLIERE MARINDIFFE MARINE FFG62 Design Features and Capabilities". Below the title is a 3D rendering of a frigate. To the right of the rendering is a list of features and capabilities. Below the rendering is a table of specifications.

Category	Value	Category	Value
Principal Characteristics		Deck and Anti-Air Warfare Systems	
Class	3000 T	2010 2010 Programmed Deck	
FFG	422.0	(1) Gun Platform	
Waterline Length	142.0	(2) Deck Gun Platform	
Beam	18.0	(3) Deck Gun Platform	
Draft	4.0	(4) Deck Gun Platform	
Displacement	3000 T	(5) Deck Gun Platform	
Speed	18.0	(6) Deck Gun Platform	
Range	4000 nm	(7) Deck Gun Platform	
Endurance	15 days	(8) Deck Gun Platform	
Complement	100	(9) Deck Gun Platform	
Armament		(10) Deck Gun Platform	
Propulsion		(11) Deck Gun Platform	
Power Plant		(12) Deck Gun Platform	
Service Life	25 years	(13) Deck Gun Platform	

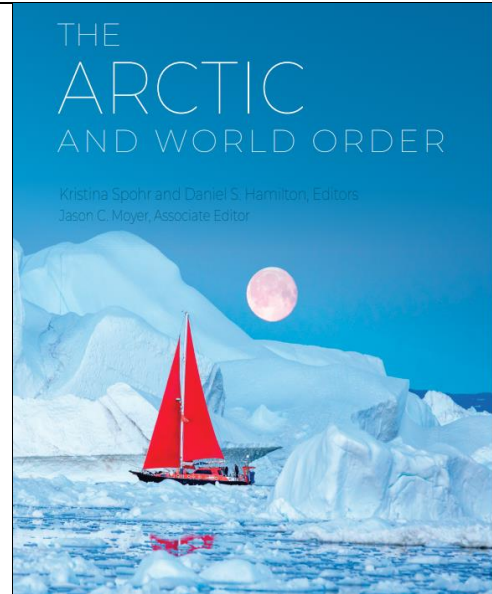
Interesting to see how much detail is being published by the US this early in the ship project (admittedly, construction is to start soon, a testament to US shipbuilding). Particularly interesting to see the build schedule published. A life of 25 years seems short for a modern escort warship, even a frigate whose growth margin (10%?) is smaller than that of a destroyer (15%?) or larger surface combatant. Canada routinely plans for 30 years for its modern frigates, and often extends them longer. (That's one reason not to build corvettes - short life.)

Note use of graphics (different aspects). Yes, there can be issues with publishing graphics before a design is finalized

Aside: this is one of the few times that I have seen a USN pennant ('hull', in their usage) number without a hyphen. Usually US sources write both the ship type (FFG) and number together, with a hyphen, because in their system ships of different types can carry the same number (e.g., USS TICONDEROGA CG-47, USS AYLWIN DD-47, USS NICHOLAS FFG-47) whilst the pennant number of a Royal Canadian Navy ship indicates its type (e.g., 300-series for frigates).

The Arctic and World Order

<https://transatlanticrelations.org/wp-content/uploads/2020/12/The-Arctic-and-World-Order.pdf>



"In this book, scholars and practitioners explore the huge political, legal, social, economic, geostrategic and environmental challenges confronting the Arctic in the face of global warming and a shifting world order, and what this may mean as we look to 2040."

Four Reasons The Navy's Bold Plans For Its Surface Fleet Are Doomed In The Biden Era

<https://www.forbes.com/sites/lorenthompson/2021/01/19/four-reasons-the-navys-bold-plans-for-its-surface-fleet-are-doomed-in-the-biden-era/?sh=2b0ff66f1836>



Note the tweet:

CDN Naval Review @CdnNavalReview 21 Jan tweeted: Interesting article. US Navy will not read it with pleasure. Some points relevant for Canada? i.e., funding and future utility of manned surface fleet? "Four Reasons The Navy's Bold Plans For Its Surface Fleet Are Doomed In The Biden Era via @forbes

I think much of the article doesn't apply to Canada. Funding (and so far it looks good for Canada and the projects under the National Shipbuilding Strategy) and drones (surface and otherwise - what are our plans?) are relevant points, though.

Bringing Back the Big Guns

<https://www.usni.org/magazines/proceedings/2021/january/bringing-back-big-guns>



Apparently the Canadian Surface Combatant (CSC) will have a 127mm (5") gun, bigger than the 57mm of the Halifax-class frigates currently in the Royal Canadian Navy (RCN). A 127mm gun

allows for naval gunfire support (NGFS, sometimes NFS), that is, fire on targets ashore, something that originally differentiated a destroyer from a frigate in the RCN's list of ship capabilities. Developments of weapons and sensors the last couple of decades have increasingly blurred the differences between the two ship types. Still, it is assessed that the RCN will designate the CSC as frigates, if only because their employment will likely be more in line with that type of ship than with destroyers (the latter tending towards escort of aircraft carriers, amphibious ships and other such high value units).

A Flawed U.S. Shipbuilding Plan to Counter China

<https://www.usni.org/magazines/proceedings/2021/january/flawed-us-shipbuilding-plan-counter-china>



"Establishing a standard, sustainable 'normal' shipbuilding program large enough to meet the demands of the new era of great power competition is key to having a 30-year program that can survive the inevitable political swings over such a long period in a democracy. The Royal Navy survived such swings in the critical years before World War I by making its strategic case not only to those in office, but to the public who put them there. American naval strategists need to do the same today..."

Canadian naval strategists need to do the same today.

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.



<https://mailchi.mp/rusi.org/weekly15january2021?e=a539211a30>



Romanian government approves Naval Strike Missile buy

<https://www.defensenews.com/global/europe/2021/01/14/romanian-government-approves-naval-strike-missile-buy/>



Sensitive equipment being purchased by Global Affairs Canada without consultation with security experts: report

<https://ottawacitizen.com/news/national/defence-watch/sensitive-equipment-being-purchased-by-global-affairs-canada-without-consultation-with-security-experts-report>



Federal government looking to settle lawsuit over \$165 million error in veterans benefits

<https://www.cbc.ca/news/SOMNIA-1.5877892>



Canadian selection of Chinese firm for security equipment sparked major concerns in U.S.

<https://ottawacitizen.com/news/national/defence-watch/canadian-selection-of-chinese-firm-for-security-equipment-sparked-major-concerns-in-u-s>



French forces get new batch of micro-drones for recon missions

<https://www.defensenews.com/global/europe/2021/01/15/french-forces-get-new-batch-of-micro-drones-for-recon-missions/>



Iran tests suicide drones that look similar to those used in Saudi attacks

<https://www.defensenews.com/training-sim/2021/01/15/iranian-guard-drones-in-drill-mirror-those-in-saudi-attacks/>



China-US rivalry: how the Gulf War sparked Beijing's military revolution

<https://www.scmp.com/news/china/military/article/3118083/china-us-rivalry-how-gulf-war-sparked-beijings-military>



Canada assumes command of Standing NATO Maritime Group One

<https://www.canada.ca/en/department-national-defence/news/2021/01/canada-assumes-command-of-standing-nato-maritime-group-one.html>



HMCS Halifax departs for six-month Operation REASSURANCE deployment

<http://www.navy-marine.forces.gc.ca/en/news-operations/news-view.page?doc=hmcs-halifax-departs-for-six-month-operation-reassurance-deployment/kjrvl2k8>



Paul Meyer: Canada, NATO, & The Nuclear Ban Treaty

<https://cdainstitute.ca/paul-meyer-canada-nato-the-nuclear-treaty-ban/>



Cyber War

SolarWinds: Update 4

Synopsis:

In 2019 a Russian hacking team known as ATP 29 or 'Cozy Bear', hacked their way into "SolarWinds" an American Computer Management company headquartered in Austin, Texas. 'Cozy Bear' is associated with a Russian Intelligence organization, making this a Russian government attack on an American corporation. SolarWinds is known for their "Orion Platform", a sophisticated tool for managing large computer networks. The Orion Platform is used by over 300,000 clients including: US and UK Government departments, Fortune 500 companies, Intelligence Companies, Computer Security Companies as well as smaller organizations such as local governments and school boards.

We do not know how SolarWinds was breached. Three possible methods have been identified but none of them have been confirmed. What we do know is that by October 2019, Cozy Bear had inserted some modified code into an update that was pushed to Orion Platform clients. This was a proof of concept attack that demonstrated Cozy Bear had access to the development stream for the Orion Platform. In March 2020 another Orion Platform update was distributed by SolarWinds, with a 'backdoor' created by Cozy Bear included. SolarWinds has not stated how many of their Orion Platform clients received the March update. Estimates run as high as 18,000 organizations.

The hack was detected in December 2020 when an American Computer Security company, FireEye, detected that a number of their specialty testing tools had been copied off their network. FireEye published the 'signature' for their tools so that any use of the tools would get detected. They also investigated their network and determined that the hack originated from the Orion Platform. SolarWinds was identified as the source of the malware backdoor that was inserted into their network.

Although the mainstream media has stopped covering the SolarWinds hack, Computer Security media continue their reporting. Over 250 organizations have been identified as being hacked, meaning 'backdoors' were inserted into their computer networks and those networks have 'phoned home' to the Russian hackers command and control infrastructure. Several Canadian cities, school boards and other organizations have been hacked although none of them has admitted it publicly.

Observations (effective 21 Jan 2021):

A second Russian hacking team, "Turla" aka 'Venomous Bear' has been identified by their malware code as participating in exploiting the SolarWinds hack. This was pointed out by a Russian cyber security firm, Kaspersky.

210112 ([theguardian.com](https://www.theguardian.com)): [Code deployed in US cyber-attack linked to suspected Russian Hackers](#)

Four different sets of malware tools sets, used by hackers working for the Russian government, have been identified in hacked networks. The malware programs or more properly toolsets are:

Sunburst backdoor: Sunburst is a malware backdoor, created by the Cozy Bear hackers, and inserted into the Orion Platform. SolarWinds developers digitally 'signed' the Orion Platform update, including the backdoor. This meant the backdoor was identified as legitimate software. One of the primary intentions of 'Sunburst' was to install 'Sunspot' malware, adding even more 'backdoors' to hacked networks.

FireEye identified the Sunburst backdoor, reverse engineering how it communicates with its command and control servers. Most of the information about who was hacked comes from FireEye's computer forensics.

201216 (threatpost): [The SolarWinds Perfect Storm: Default Password, Access Sales and More](#)

Teardrop: This is a mini program, operated by the hackers, that operates in the victims computer memory. Its function is to run any commands they send to it, while remaining invisible.

Teardrop has been detected in a number of U.S. Government departments, compromised by SolarWinds.

210112 (Krebs on Security): [SolarWinds: What Hit Us Could Hit Others](#)

Sunspot: This has been identified as the first software deployed into the SolarWinds network. It allowed the hackers to observe Orion Platform development, and ultimately to assemble their malware/backdoors within Orion.

210112 (ZDNet): [Third malware strain discovered in SolarWinds supply chain attack](#)

210112 (threatpost): [SolarWinds Hack Potentially Linked to Turla APT](#)

Raindrop: The program adds additional backdoors in the infected workstation and spreads through the targeted network to ensure the hackers maintain their access. It also spreads another program called 'Cobalt Strike', a commercially available program that explores networks, identifies vulnerabilities and beacons or signals those vulnerabilities to the attackers.

210119 (Security Week): [SolarWinds Malware Arsenal Widens With 'Raindrop'](#)

Malwarebytes, a computer security company specializing in anti-malware software has announced that they also were hacked as part of the SolarWinds Orion hack.

210121 ([arstechnica.com](#)): [Security Firm Malwarebytes was infected by the same hackers who hit SolarWinds](#)

The only good news is that FireEye has released a tool to detect Solarwinds hacker activity. Even if the Russian hackers have installed additional malware in the network the tool *should* be a good indicator of how severely the network has been penetrated.

210120 (securityaffairs): [FireEye releases an auditing tool to detect SolarWinds hackers' activity](#)

Assessment:

1. Malwarebytes has a good reputation for their own anti-malware as well as being excellent anti-hacker investigators. The discovery that their email was compromised is a strong indicator that the SolarWinds hack will continue for a long time.
2. The hackers had nine months to select and exploit before they were discovered (Mar-Dec 2020). The fact that FireEye detected the hackers in December suggests that the hackers

stayed away from organizations where there was a high probability that they could/would be detected. Since government departments are not usually noted for their security, early targets probably included: U.S. Departments of Treasury, Commerce and Justice.

It is my *assessment* that Intelligence Agencies would be *HIGH PAY OFF TARGETS* and as such would probably be assessed and approached/hacked on a different basis.

3. The lack of comment from Canadian cities and organizations that have been hacked is typical behaviour and should be expected. I *assess* that more organizations will be revealed as being hacked. The reveals will most likely come from computer security companies as they expose the attackers command and control infrastructure. I expect that organizations revealed as hacked will include more computer security and intelligence organizations.

Comment: One of the most sophisticated anti-hacker organizations is the American Banking systems FS-ISAC (Financial Systems - Intelligence Sharing and Analysis Centre). The lack of comment from FS-ISAC and American banks is ... unsettling.

4. Probable Responses (Assessed):

A. Canadian Government: Little or none. The Liberals have no cyber-security policy and no appreciable understanding of the seriousness of the threat.

B. U.S. Government: Minimal. The NSA is the foremost computer espionage organization in the world, by most criteria. This makes it difficult to chastise Russia. Some might argue that the Americans don't indulge in targeting the same things the Russians do however it is a moot point. At a base level, hacking is hacking. The Biden administration also has the same problem as the UK administration.

C. UK Government: Minimal. The UK is mired in multiple crisis. It is unlikely that their leadership have the bandwidth to address Russia given the other stresses on their government.

5. Although the SolarWinds hack has disappeared from mainstream media, I *assess* that it will continue to get worse with more organizations being revealed as hacked and hacked organizations discovering they were deeply penetrated.

This cyber-intelligence product is produced by David Swan as an information service. It is copyright ©David Swan 2021. It MAY be circulated.



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

#Arctic

Blue Arctic: A Strategic Blueprint for the Arctic

<https://cimsec.org/a-new-arctic-strategy-for-an-emerging-maritime-domain/47233>

DHS Releases New Arctic Strategic Approach to Advance U.S. Interests in the Region

<https://www.dhs.gov/news/2021/01/13/dhs-releases-new-arctic-strategic-approach-advance-us-interests-region>

and "Strategic Approach for Arctic Homeland Security"

<https://www.dhs.gov/publication/strategic-approach-arctic-homeland-security>

A Developing Maritime Operational Environment: Forward Presence and Freedom of Navigation in the Arctic

<https://www.naadsn.ca/wp-content/uploads/2021/01/Strategic-Perspectives-A-Developing-Maritime-Operational-Environment-Bouffard.pdf>

#airpower

DesertStorm30 – Planning and Executing the Air Campaign

<https://balloonstodrones.com/>

#command

Vorwärtsdrang

<https://defense-and-freedom.blogspot.com/2021/01/vorwartsdrang.html>

#COVID-19

US Federal Emergency Management Agency Coronavirus Disease (COVID-19) Initial Assessment Report

<https://www.fema.gov/disasters/coronavirus/data-resources/initial-assessment-report>

#cyber operations

Cyber ‘Deterrence’: A Brexit Analogy

<https://www.lawfareblog.com/cyber-deterrence-brexit-analogy>

Innovation and the Proper Context of Cyber Operations

http://www.brandonvaleriano.com/uploads/8/1/7/3/81735138/innovation_and_the_proper_context_of_cyber_operations_-_mcg.pdf

#drones

Underwater Drone Incidents Point to China’s Expanding Intelligence Gathering

<https://rusi.org/commentary/underwater-drone-incidents-point-china-expanding-intelligence-gathering>

Down to the Sea in USVs

<http://cimsec.org/down-to-the-sea-in-usvs/42953>

#future casting

The Faultline Between Futurists and Traditionalists in National Security

<https://warontherocks.com/2021/01/the-faultline-between-futurists-and-traditionalists-in-national-security/>

#information operations

Competing for Influence: Operations in the Information Environment

podcast: <https://mwi.usma.edu/competing-for-influence-operations-in-the-information-environment/>

Lessons from Syria’s Low-Profile Narrative War

<https://warroom.armywarcollege.edu/articles/narrative-war/>

Competing for Influence: Operations in the Information Environment

<https://mwi.usma.edu/competing-for-influence-operations-in-the-information-environment/>

#mobilization

State of War, State of Mind: Reconsidering Mobilization in the Information Age

<https://www.jpolorisk.com/state-of-war-state-of-mind-reconsidering-mobilization-in-the-information-age/>

#NATO

The Future of the NATO Corps

<https://rusi.org/publication/occasional-papers/future-nato-corps>

#professional military education

Decolonising Professional Military Education

<https://wavellroom.com/2021/01/09/decolonising-professional-military-education>

#strategy

Clausewitz’s Library: Strategy, Politics, and Poetry

<https://thestrategybridge.org/the-bridge/2018/8/6/clausewitzs-library-strategy-politics-and-poetry>

#war

Does the Pandemic Tell Us Anything About War Casualties?

<https://rusi.org/commentary/does-pandemic-tell-us-anything-about-war-casualties>

#warfare

Thinking like Sun Tzu – part 2, a series of 6 maxims

<https://wavellroom.com/2021/01/13/thinking-like-sun-tzu-part-2-a-series-of-6-maxims/>

#wargaming

Wargaming has a Diversity Problem

<https://wavellroom.com/2021/01/15/wargaming-has-a-diversity-problem>

#weapons

Hypersonic Superweapons Are a Mirage, New Analysis Says

<https://www.nytimes.com/2021/01/15/science/hypersonic-missile-weapons.html>

Modelling the Performance of Hypersonic Boost-Glide Missiles

http://scienceandglobalsecurity.org/archive/2020/12/modelling_the_performance.html

Other:

Message from National Defence Assistant Deputy Minister of Public Affairs

Colleagues and Partners in Defence,

I would like to wish you a healthy and refreshed start to 2021. In many parts of the country, it's safe to say this one will be remembered more for its household bubbles than its bubbly.

Looking back, to say that my first six months as the Assistant Deputy Minister of DND's Public Affairs branch have been a whirlwind is an understatement. Through it all, I have been so impressed with the hard work, professionalism and dedication of my Defence Team colleagues. Like all Canadians, I am grateful for everything they've done over the last year, one of the most difficult in recent memory, particularly with the tragic loss of 9 CAF members.

As we reach the midway point of January, I want to provide an update on some recent activities and a look-ahead through 2021. On January 14, we welcomed [Admiral Art McDonald as the new Chief of the Defence Staff](#) following his successful tenure leading the Royal Canadian Navy. This proud Bluenoser comes into the role as Canada's 20th CDS with three decades of service that includes various ship, fleet and formation level commands.

Admiral McDonald replaces General Jonathan Vance, who retires after five-and-a-half years as CDS, a distinguished conclusion to an exemplary 39-year military career. As CDS, General Vance worked tirelessly to set the conditions for CAF success into the mid-century and beyond. He established a more respectful and inclusive culture through Op HONOUR and championed the well-being of CAF members at every stage of their careers, from recruitment to transition out of the forces. General Vance helped develop *Strong, Secure, Engaged* (SSE), Canada's defence roadmap for the next twenty years, and he was a strong advocate for the concurrency of operations model. He has also positioned the CAF for continued operational success in an increasingly contested strategic environment as we work with Allies and partners to uphold the rules-based international order.

In a separate change of command ceremony earlier this week, the [Royal Canadian Navy welcomed Vice-Admiral Craig Baines](#) to the helm as its new commander. Vice-Admiral Baines is no stranger to either coast and has held various commands over the course of his 30-plus-year career, including his most recent appointment as Deputy Vice Chief of the Defence Staff. I have every confidence the

incoming CDS and new Commander RCN will uphold the tradition of excellence that Canadians have come to expect from their senior military leadership.

Although 2020 was unpredictable in countless ways, there is much we can depend on in the year to come: CAF members will continue to deploy when and where they are needed from Asia-Pacific to the Middle East, and the Caribbean Basin to Central and Eastern Europe. Leadership at all levels will seek to cultivate a more respectful and inclusive culture. At the same time, DND will remain steady on SSE implementation. This includes further progress on procurement and capital projects to ensure CAF personnel have the tools they need to carry out their duties at home and abroad. To date, 31% of capital projects outlined in the defence policy are in close-out or completed.

Most recently, the federal government last month took delivery of the first of 360 new [Armoured Combat Support Vehicles](#) from General Dynamics Land Systems of London, Ontario. This \$2 billion contract will deliver 360 vehicles by 2025 for use as ambulances, command posts, troop transport, and maintenance vehicles. In addition, Canada awarded a \$16.5 million contract to Zodiac Hurricane Technologies of Delta, British Columbia for the [repair, overhaul, and maintenance of the CAF's fleet of inflatable rubber boats](#). Inflatable boats provide a critical operational capability and support a wide range of missions, including search and rescue. These types of contracts contribute to our vital domestic defence industry which employs some 283,000 Canadians -- an industry that will be key to the country's economic fortunes coming out of the COVID-19 pandemic.

Canadians can be proud of the Defence Team's contribution to Canada's pandemic response. Whether bringing home Canadians stranded abroad, caring for the most vulnerable in Long-Term Care Facilities, or supporting local health officials in remote and Indigenous communities, the military has delivered essential life-saving services to Canadians during the past year. The military is also helping coordinate the Public Health Agency of Canada's nationwide COVID-19 vaccine rollout, with Major-General Dany Fortin serving as Vice President Logistics and Operations.

I view our whole-of-government effort to protect Canadians through a lens of gratitude and great optimism. Though we aren't out of the woods yet, I have the utmost faith that Canadians can hold the course in the months to come. Health care workers and our most vulnerable are already receiving the COVID-19 vaccine, with millions of more doses on the way. Meanwhile, the [CAF has been working with PHAC to prioritize the order of vaccination](#) for all eligible CAF members who choose to receive it. Earlier this month, personnel who work as frontline healthcare providers began receiving the Moderna vaccine. Plans are in place to inoculate the rest of the CAF between now and December.

I am grateful to you — the people who help us share the story of the Canadian Armed Forces. At a time when connecting with family and friends has been particularly challenging, you helped us stay connected with Canadians. You held Public Affairs to the highest standards and always challenge us to produce our best work. I offer you my sincerest thanks for this, and for everything you do to support the Defence community here in Canada.

Wishing you good health and every success in 2021.

*Laurie-Anne Kempton,
Assistant Deputy Minister (Public Affairs)*

Supplementary Mandate Letters January 2021

<https://pm.gc.ca/en/mandate-letters>

MND <https://pm.gc.ca/en/mandate-letters/2021/01/15/minister-national-defence-supplementary-mandate-letter>

Minister of Public Safety and Emergency Preparedness <https://pm.gc.ca/en/mandate-letters/2021/01/15/minister-public-safety-and-emergency-preparedness-supplementary-mandate>
Minister of Veterans Affairs <https://pm.gc.ca/en/mandate-letters/2021/01/15/minister-veterans-affairs-and-associate-minister-national-defence>
Minister of Fisheries, Oceans and the Canadian Coast Guard <https://pm.gc.ca/en/mandate-letters/2021/01/15/minister-fisheries-oceans-and-canadian-coast-guard-supplementary-mandate>
<https://pm.gc.ca/en/mandate-letters/2021/01/15/minister-transport-supplementary-mandate-letter>

Admiral McDonald's Flag Hoist Signal



It is the greatest privilege of my career to address you as your Chief of the Defence Staff. Upon assuming the Watch, I offer tremendous thanks and appreciation to General Vance – wishing him fair winds and following seas. I am humbled and honoured to relieve such a great leader and mentor, to become Canada's twentieth Chief of the Defence Staff and have the responsibility to build on the enormous momentum towards a bright future that is his legacy. I am also thrilled to once again share a Watch with CPO1 Gilles Grégoire, your CAF CWO.

To the incredible members of the Canadian Armed Forces and Department of National Defence, teammates all, you need know that you, who have dedicated yourselves to the service of Canada, are forefront in my mind. I'm so proud to count myself amongst your strength. I'm so proud of you. Your professionalism is what enables us to achieve our important operational objectives. Your ingenuity and creativity allow us to address the complex problems we face. Your integrity shines through and inspires Canadians. Not surprisingly, you have as a result become a beacon of hope when times are difficult. You are Canada at its best when Canada's best are needed at home or abroad.

You are also family. We are family. It's one of the great strength of who we are. In the navy, there's a gender-neutral term for colleagues held so close as to feel like family: shipmate. Obviously as an old salt, I consider you all – sailors, soldiers, aviators, Special Forces operators, and civilians alike – to be my shipmates even though I'll try to use the term "teammates" instead going forward to avoid you suffering from any "sea-sickness."

Teammates, this is a time of change, not only in your leadership, but in the world around us. COVID-19 continues to impact our daily routines at work as well as at home. Vaccine roll-out is underway, including for CAF members. Meanwhile, the world is an ever-more complex and demanding place in which Canada has found increasing need for the Forces, at home and abroad. And so, as we scan the horizon for what is next, I want you to know that it is also a time of continuity. Our course was charted in *Strong, Secure, Engaged*, and in its pursuit our mission is to keep steady.

As a "go-to, no-fail" Force, we will work with our whole-of-government partners to defend Canada, Canadians and Canadian interests at home and abroad. Ever ready, we will answer the call when our fellow Canadians are endangered by the forces of nature or other threat. We will work with our neighbours to the south to modernize NORAD and enhance our continent's defence. And we will be amongst the key instruments through which Canada remains engaged in the world to promote security and stability alongside our allies and partners. The strategic environment is indeed complex and dynamic, but through your service and routine sacrifices – and those of your families - we will continue

to provide the Government of Canada options and will always be ready to produce the required outcomes when called.

Therefore, as we move forward with implementing our Defence policy, you will have the equipment that you need to accomplish the important work you do. So I share your excitement about our clear progress in acquiring new ships, aircraft, vehicles, weapons systems, C4ISR technology, and more. Investment and innovation will continue to set the conditions for future success.

All of this can only be made possible if you are set up for success. We cannot focus solely on outcomes for outcomes' sake. **How** we act matters as much, if not more, than what we accomplish. And we need to show our work here. To these ends, I promise you that we will be unwavering in our commitment to growing an inclusive and diverse workplace, and to identifying and eliminating racism, discrimination, and hateful conduct in the Canadian Armed Forces. All people deserve to be treated with dignity and respect in our ranks.

Creating the culture that we seek is no small task. This culture change will take a concerted effort – by each and every one of us. It will require active leadership and continuous engagement at all levels. It will require that we help one another as we listen, learn, and act. This is not at odds with our thirst for operational excellence. It is a pre-requisite. It is mutually reinforcing – making this work with respect to who we are and how we do things perhaps what excites me most amongst the great things we are doing to ensure our readiness and success today and tomorrow.

People are obviously at the heart of our business. That's why my prime directive has always been people first, mission always. In addition to being an underpinning to our current Defence policy, it is just how I was raised in this family of ours. So I am committed to continuing to prioritize providing you and your families with the support systems that you need and which SSE has outlined – from recruitment to retention to transition out of service. After all, we need remember always that our strength comes from the combined might of our individual members and the families that love and support them – as well as the impressive extended Forces' family.

Teammates, the sacred responsibility that I have undertaken is to advocate for, empower, and lead you. I look forward to navigating through these interesting and exciting waters with you. We got this.

Yours aye,
Admiral Art McDonald
Chief of the Defence Staff

US Army University Press *Military Review* January-February 2021

<https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/January-February-2021/>

contents:

China's Maritime Militia and Fishing Fleets: A Primer for Operational Staffs and Tactical Leaders

Dense Urban Environments: The Crucible of Multi-Domain Operations

Hunting the Adversary: Sensors in the 2035 Battlespace

Humility: The Inconspicuous Quality of a Master of War

Event Barraging and the Death of Tactical Level Open-Source Intelligence

Seeing through the Fog: Developing Fog of War Resistant Visualization

Multi-Domain Operations at Division and Below

Impact of Cultural Globalization on Soldiering: An Emerging Concern for Future Leaders

Teaching the Army: Virtual Learning Tools to Train and Educate Twenty-First-Century Soldiers

The Rock of Gallipoli: The Leadership of Mustafa Kemal

The Pitfalls of Well-Meaning Compassion: Joint Task Force-Haiti's Infowar of 2010

Leadership and Military Writing: Direct, Organized, Strategic

Professional development for Officers

<https://www.canada.ca/en/department-national-defence/services/benefits-military/education-training/professional-development/framework/officers.html>

A succinct description. This was made available after a query about an initialism: JOD = junior officer development, as in CAFJOD Programme.

Security Affairs Committee Synopsis

What a week, with the inauguration of a new US President in the form of Joe Biden. It would also be remiss not to mention the very historical swearing in of the first woman as Vice President who also happens to be the first black woman and a person of South Asian. After listening to President Biden's speech, I was struck that it was a message of hope and unity...that will be a tall order. I also re-listened to the past president's inaugural speech and was amazed in the contrast that seemed to be resentful from day one. One can only hope that all US citizens listen at least to the new President's words. I was also struck by who attended: it included leadership of both parties, people met, smiled and were cordial. One can only hope this continues in the days ahead.

The past President was absent from all the ceremonies and petulantly left Washington without so much of a farewell to the incoming President. It was as petty as the man has always shown himself to be during his term in office. There are rumours that he will establish a new party called "the Patriot Party" who are neither patriots nor a party...more of a personal cult than anything else. Some commentators have suggested that it will be a way for him to continue to get the gullible to continue sending him money. I suspect he will need it for lawyers for fraud, sexual assault, tax evasion, insurrection, sedition and probably many other things. Did he do anything right? Probably his greatest achievement is the new relationships between Arab countries and Israel and his position on China and specifically the Communist Chinese Party. His second impeachment, a first in US history, and his lack of attention to the pandemic will forever keep him in the basement of worst US Presidents.

In the case of Canada, we look as if we may be continually hit by the more protectionist Democratic party. As hard it is to believe after four years of rather bizarre behavior by our neighbour, the Republican Party is usually the one we have better outcomes historically. Think the Mulroney-Regan years where climate issues were the most successfully progressed, such as addressing acid. The Democrats have been traditionally more protectionist. Time will tell, certainly the tone will be better with the new administration but we may be in for disappointment as well.

Canada was disappointed to learn that the Pfizer-BioNTech vaccine would be delayed due to some retooling efforts at its European plant. Canada to date has received less than a million doses, about three-quarters of a million doses as of 13 January 2021. US plants continue to produce vast millions of the vaccine which apparently is going to the US alone. As we have no production capacity anymore, we now have to stand like beggars and hope we get vaccine in a timely fashion. It is also interesting that pharmacies and dentists have not been enrolled in the vaccine rollout in Canada. The pharmacy association has said they alone could do up to three million folks per week, and one has to wonder how many dentists could also provide. Most of the issues stem from the inadequate acquisition rather than a lack of capacity to put it in arms. As for logistics, pharmacies already receive vast quantities of drugs each and every week, and they are known capacities. This new program would also use their normal supply system. My point is that the lack of detail on how Canadians get vaccinated is a major problem that has not been addressed.

Speaking of a lack of planning, there was an article published in the Chronicle Herald by David Pugliese on 19 January 2021 called “Security Equipment Purchased Without Consulting Experts” makes for interesting reading. The link from the Ottawa Citizen is <https://ottawacitizen.com/news/national/defence-watch/canadian-selection-of-chinese-firm-for-security-equipment-sparked-major-concerns-in-u-s>. One has to wonder about procurement in general as a result.

Russia has arrested Alexiei Navalny upon arrival in Russia. Navalny was being arrested because he didn't return to Russia by the end of December 2020 as required by his release agreement. The fact that he was still recovering from a poisoning in Germany held no water with the prison authorities. They even arranged for the aircraft to be re-routed to another airport to avoid Navalny supporters who were waiting for the opposition leader. Mr Navalny had an ace up his sleeve and released a video. The link to a BBC article published today called “Alexei Navalny: Millions Watch ‘Putin Palace’ video” is at link: <https://www.bbc.com/news/world-europe-55732296>. The Kremlin denies the accusation...however, the idea is out there and very directly implicates President Putin. It is a good chuckle.

Mr Navalny has also asked for his supporters to demonstrate in over 50 major cities on 23 January 2021. The Putin regime has reacted with its usual tactics, threatening to arrest anyone who promote these demonstrations. Social media in Russia and control of it seems to be somewhat elusive. If the supporters are successful, it may rock the regime to its core. Saturday will be an event to watch.

The Communist Chinese Party (CCP) continues its crackdown on Hong Kong activists and pro-democracy politicians. It is believed that new laws being considered as part of this crackdown will highly restrict people from leaving Hong Kong. This is especially true as the family of Joshua Wong have fled to Australia which has opened the doors to other people fleeing the latest attempts to stifle democracy. Canada unfortunately does not have a policy and a plan for extracting the 300K Canadian citizens is not formulated as yet. It is a deteriorating situation. It is also a strong indication that the ‘One country two systems’ is well and truly dead.

The CCP has also finally released Jack Ma who was seen for the first time since 10 October 2020 in a televised talk with rural teachers who Jack Ma supports. His whereabouts during this period are unknown but there is speculation he was enjoying the benefits of anyone who criticizes key CCP organizations, in this case the banking regulators in public. Glad he isn't ‘ill.’

In a parting shot at the Trump Administration, the CCP sanctioned 28 people involved with actions that the CCP considers hostile, such as Kelly Kraft going to Taiwan or Mike Pompeo, the Secretary of State, or well-known China hawk, John Bolton. I hope they will be disappointed. Antony Blinken is also noted to have espoused views that are similar to the former administration. One can hope that the new Biden Administration will be more nuanced but equally determined to counter gross CCP actions as identified by Secretary Pompeo.

There is so much going on in the world and so many issues that are being ignored in the Western media, it isn't remotely funny. We won't go into drone swarms and who already is able to conduct such operations.