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## TRAINING FOR THE NEXT WAR

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### JCSP 48

#### Service Paper

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**Major Brian S. Lee**

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# TRAINING FOR THE NEXT WAR

## AIM

1. The aim of this service paper is to assess the modernization of the Canadian Army's individual and collective training to evaluate the efficacy for current and future warfare in a pan domain environment – fit for purpose - in response to the following question:

“Training For the Next War. Armies are often accused of training for the last war. With recent conflicts such as the Second Nagorno-Karabakh War highlighting the importance of emerging technologies, a re-imagined Russian military with new capabilities (not your father's Soviet Army), and an expanding Chinese sphere of influence in the Indo-Pacific and even in the Arctic, are our individual and collective training approaches adequately preparing us for the next war?”<sup>1</sup>

## INTRODUCTION

2. There is no doubt, within the past years, that our strongest adversaries' have increased their capabilities to fight in a pan-domain environment. Cyber effects have been witnessed in the Ukraine to target artillery and instill fear in the population<sup>2</sup>; in space adversaries have demonstrated their capabilities to destroy satellites<sup>3</sup>; the advance in hypersonic missile capabilities; and information operations. The threat posed in these domains demonstrate the ability of Canada's adversary to prosecute political and military objectives in a pan-domain approach. Further, the Rand report has implied that Canada's adversaries are more threatening than they ever were in the past. In particular, adversaries have advantages of capabilities to prosecute targets at a greater range in both quantity and area effects<sup>4</sup>. It is evident that the Canadian Armed Forces leadership recognize the current and future threats and the Army will need to be capable to operate in an environment that is degraded and where supremacy may not exist in all domains.

3. The question thus implies that a determination be made on current Army training – is training fit for purpose for current and emerging conflicts? This service paper will not comment on joint requirements based on traditional elements: the Royal Canadian Navy and the Royal Canadian Air Force, which to a certain extent is mature.

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<sup>1</sup> Department of National Defence, JCSP Research Topic List, (Toronto, ON: 2021), 15.

<sup>2</sup> Mathew J. Schwartz, *Russian DNC Hackers Tied to Ukrainian Artillery App Hack*, Bank Info Security (December, 2016), <https://www.bankinfosecurity.com/russian-dnc-hackers-tied-to-ukrainian-artillery-app-hack-a-9602#:~:text=The%20legitimate%20Android%20app%20was,than%2015%20seconds%2C%20Crowdstrike%20says> and Thomas Reuters, *Cyberattack Hits Ukraine as U.S. Warns Russia Preparing 'Pretext for Invasion'*, Canadian Broadcasting Corporation (14 January, 2022), <https://www.cbc.ca/news/world/ukraine-russia-hacking-government-websites-1.6314821>. Articles demonstrate the ability of adversarial forces to locate artillery units by hacking Android applications and to post messages to government computers to instill fear in the citizens.

<sup>3</sup> Charity Weeden, Strong, Secure, Engaged in a Threatened Space Domain, Canadian Global Affairs Institute (Calgary, AB: 2018), 2.

<sup>4</sup> Andrew Radin, et al, *The Future of the Russian Military, Russia's Ground Combat Capabilities and Implications for U.S. – Russia Competition* (Rand Corporation, Santa Monica California: 2019), 77.

## CONTEXT

4. *Strong, Secure, Engaged, Canada's Defence Policy*, identifies success in an unpredictable and complex security environment by “being responsible and valued added partner with NORAD, NATO and Five-Eyes partners and increasing presence and working cooperatively in the Arctic”<sup>5</sup>. This implies that the Army's readiness be designed to meet NATO commitments and to exercise Canadian sovereignty in the Arctic.

5. The CAF's *Pan-Domain Force Employment Concept (PFEC)*, the Chief of Defence Staff (CDS) states that the CAF needs to “understand the complex nature of competition, contest, confrontation and conflict.”<sup>6</sup> Further the CDS expresses “Canada and its Allies are in a persistent state of competition with adversaries who use all instruments of national power to undermine the international rules-based order.”<sup>7</sup>

6. The Army's *Advancing With Purpose, the Canadian Army Modernization Program*, issued in 2020, identifies pan-domain activities as a threat: “The Canadian Army is currently optimized to counter single-domain threats that are violent, physical, and attributable.”<sup>8</sup> Further, Commander Canadian Army identifies “The Canadian Army must do its part to ensure its soldiers possess the right mindset and training to fulfill its role”.<sup>9</sup>

7. With CDS direction on PFEC and the Commander Canadian Army with *Advancing With Purpose*, it is intuitive that change in the Canadian Army is required to build readiness in an environment that is contested and degraded by pan-domain threats – including cyber, space and information operations. Supremacy may not exist for Canada and its allies in all domains in future armed conflicts.

8. With the Canadian Army Modernization Strategy, the Canadian Army is in the process of updating training requirements to meet current and future threats. In particular, section 1.3 Training Approach, the Canadian Army and Doctrine Centre is tasked to “further optimize training deliverables and improve effectiveness”.<sup>10</sup> For the purposes of answering the question, the following discusses the modernization Canadian Army Training and its impacts on individual and collective training to build readiness in a pan-domain environment.

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<sup>5</sup> Department of National Defence, *Strong, Secure, Engaged, Canada's Defence Policy*, (Ottawa, ON: 2017), 14.

<sup>6</sup> Department of National Defence, *Pan-Domain Force Employment Concept* (Ottawa, ON: 2020), 3.

<sup>7</sup> Department of National Defence, *Pan-Domain Force Employment Concept* (Ottawa, ON: 2020), 3.

<sup>8</sup> Department of National Defence, *A-PP-106-000/AF-001 Advancing With Purpose: The Canadian Modernization Strategy*, (Ottawa, ON: December, 2020), 23.

<sup>9</sup> *Ibid*, 23.

<sup>10</sup> Department of National Defence, *A-PP-106-000/AF-001 Advancing With Purpose: The Canadian Modernization Strategy*, (Ottawa, ON: December, 2020), p33.

## DISCUSSION

9. In 2021, in response to the Canadian Army's modernization strategy, Commander Canadian Army Doctrine and Training Centre (CADTC), approved the design of a new threat model based on the United States' Decisive Action Training Environment (DATE) Europe, replacing the existing geography and theatre of the DATE Caucasus Region that was previously used by the field force for training. The Canadian DATE Europe model is customized to model the Baltic region of Eastern Europe, with the intent of simulating a near peer adversarial threat in a pan-domain environment, to support Canada's readiness for expeditionary commitment to the Enhanced Forward Presence Battle Group and renewed Commitments to the North Atlantic Treaty Organization (NATO). The development of the contemporary training environment was completed with participation from multiple stakeholders and joint partners, including subject matter experts in space, cyber and information. The Canadian DATE Europe model was adopted for key readiness exercises UNIFIED RESOLVE 2022, MAPLE RESOLVE 2022 and the Army Operations Course<sup>11</sup>. This scenario would be intended to be disseminated Army wide and accessible to the lowest levels (unit, sub-unit and sub-sub unit) for the design of future individual and collective training.

10. For the Arctic, training direction has been extant, outdated and neglected over the years. From an individual training perspective, formal qualification in Basic Winter Warfare is mandatory for the field force and the Arctic Operations Advisor course is offered to 30 people per year. It was determined in 2021 that a capability gap existed in winter/arctic training and the Canadian Army Advanced Warfare Centre is currently developing an Advanced Winter Warfare Intermediate course, building competencies for Army members to survive and operate in the winter/arctic environment. Enduring collective training direction was promulgated in CAO 23-08, Northern Operations in 1996 and received approval to be cancelled by Commander Canadian Army in December 2021 to make way for a new version for June 2022<sup>12</sup>. There is currently an AOPG scheduled for February 2022 to solicit feedback and ideas from key stakeholders including the Canadian Joint Operations Command (CJOC). In executing arctic collective training, CJOC the lead of Op NANOOK, Canada's joint Arctic sovereignty exercises, has prefaced initial planning conferences to the elements with the following question: "what do you want to do?" – this appears to be counter-intuitive for a lead command in designing training exercises.

11. For readiness individual training, CAO 24-04, Foundation Training Policy: Individual Training (IT) For Land Operations, was revised in September 2019. The revision was premised on reducing the number of individual battle task standards that had to be completed by the field force annually. Guarding time and space for field force to meet other institutional priorities. This training is not intended to be initial training and is intended to be continuation training once members have completed their formal occupational training. In particular, the update to the 2019 removed IBTS

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<sup>11</sup> As Executive Assistant to Commander CADTC, Commander CADTC approved the design, in early 2021, of the DATE Europe model and its early incorporation into Ex UNIFIED RESOLVE 2022, taking place at the time of writing, and subsequent training exercises. In addition, the Commander approved a temporary pause of the Army Operations Course, from January to March 2022, to allow the Canadian Army Command and Staff College to update their courseware, in part to reflect DATE Europe.

<sup>12</sup> Department of National Defence, *Army Training Authority Briefing Note – Cancellation CAO 23-08: Northern Exercises Effective Immediately*. (Ottawa, ON: 8 Dec 2021), 1.

*Perform Individual Fieldcraft, Navigation, Employ C4ISR systems and Explosive Threat and Hazard Awareness Recognition*<sup>13</sup>. In particular, Navigation, typically validated through the use of map and compass, should be re-considered if the Global Positioning System (GPS) can be degraded by adversarial powers<sup>14</sup>. In 2021, Commander CADTC approved revising CAO 24-04 to address feedback received from the field force. This revision is still in process and could consider impacts of pan-domain effects in selecting what is required or not required to be validated annually.

12. Canadian Army Orders<sup>15</sup> (CAO) 23-21 on collective training was updated in March, 2021. Collective training revisions updated mainly terminology; replacing the term *Combined Arms Group* with *Combined Arms Team*<sup>16</sup>; reinforcing the definition of a Combat Team; reinforcing NATO terminology for the evaluation of collective training; and the governance of army collective training. Similarly, the CAO requires that DATE be used to support the design of exercises for validating collective training<sup>17</sup>. Both CAOs on individual and collective training would be used to support annual training direction, foundation training, mandated in the Canadian Army's Operating Plan<sup>18</sup>. As part of the Army's operating plan the required Battle Task Standards that each occupation is required to achieve is published.

13. In particular, collective training is validated and measured through the Army's Battle Task Standards defined as the "knowledge, skills and conditions required to conduct specific tactical tasks and provide an operational measure against which the effectiveness and efficiency of training can be gauged." For instance, an infantry platoon, would be validated to the Infantry Battle Tasks Standard, *Execute an Attack* or an Engineer Squadron would need to be validated to *Execute Mobility Operations*<sup>19</sup>. Battle Task Standards are designed to be used to validate the training audience and are decentralized to the validating authority<sup>20</sup>. As Battle Task Standards are specific

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<sup>13</sup> Department of National Defence, *CAO 24-04 Foundation Training Policy: Individual Training (IT) For Land Operations* (Kingston, ON: September, 2019), A-1/1.

<sup>14</sup> Charity Weeden, Strong, Secure, Engaged in a Threatened Space Domain, Canadian Global Affairs Institute (Calgary, AB: 2018), 2.

<sup>15</sup> Commander Canadian Army, CAO 11-01 Canadian Army Orders – Structure and Development (Ottawa, ON, January, 2014), 1. The intent of CAO 11-01 is to supplement and amplify existing orders and regulations, in this case existing doctrine that is outdated and not expected to be revised in the short term.

<sup>16</sup> Department of National Defence. *B-GL-310-001/AG-003 Close Engagement - Land Power in the Age of Uncertainty - Evolving Adaptive Dispersed Operations* (Kingston, ON: Canadian Army, 2019), 23. The term "Combined Arms Team" was adopted by Commander CADTC to complement the term "Enhanced Combined Arms Teams".

<sup>17</sup> Department of National Defence, CAO 23-21, Canadian Army Collective Training Policy – Foundation Training (Kingston, ON: March, 2021), 12.

<sup>18</sup> The Canadian Army Operating Plan outlines mandated readiness and collective training requirements annually applying long term collective and individual training published in CAO 23-21 and CAO 24-04.

<sup>19</sup> Department of National Defence, *Canadian Army Operating Plan Fiscal Year 2021-2022, Version 1* (Ottawa, ON: 1 February 2021), Chapter 2, Annex A, Appendix 2.

<sup>20</sup> Department of National Defence, *B-GL-300-008/FP-001, Training for Land Operations* (Kingston, ON: 2014), 5-3-1; Department of National Defence, CAO 23-21, Canadian Army Collective Training Policy – Foundation Training (Kingston, ON: March, 2021), 12. Both documents state that the validation authority for the training audience is the Commander two levels up. For instance, the validating authority for Section level training, is the Company/Squadron Commander.

to occupations' specific tasks, pan-domain effects, such as loss in communications, could be factored into the validation exercise.

14. For Joint Training, there are no published or directed requirement for the Army's field force to train in such an environment at the tactical level (Section to Battalion). However, Joint Training, as identified in *Strong, Secure, Engaged*, the Brigade Group structure is the only "level that it is possible to execute integrated joint operations with the rest of the Canadian Armed Forces, other government departments, NATO and other allies of partner forces and non-government organizations."<sup>21</sup> Therefore, the Army's Capstone exercises to validate and certify the Brigade in High Readiness, UNIFIED RESOLVE and MAPLE RESOLVE are the only exercises that incorporate the pan-domain capabilities available to a Brigade to be validated and certified to conduct operations. However, there has been substantial debate, uncertainty of where pan-domain capabilities reside, in particular confusion between tactical and operational levels of responsibilities, stating:

"Training objectives for the CMBG appear to be a confusing mix of tactical and operational level task standards that do not align with the level of war they are supposed to be employed within (e.g. tactical), creating unrealistic expectations of a tactical Brigade Headquarters and creating "false positives" that make them less flexible and adaptable over time (e.g. too big)."<sup>22</sup>

"Brigades were producing "space weather", this is unrealistic and uneconomical. Space effects are wide ranging, and in the land domain space advisors can/should be centralized within a Joint Forces Headquarters to provide a generalized assessment for the area of operations. Having multiple brigade level space advisors in an area of less than a couple of hundred square kilometers is uneconomical and inefficient."<sup>23</sup>

15. The Joint Training Authority at CJOC, is responsible for setting standards called Joint Task List and Joint Mission Essential Tasks to measure the effectiveness of joint training. The design of Army exercises to include the Joint Task List and Joint Mission Essential Tasks are also used as a measure by to secure funding from CJOC J7 for joint training. The Army, in 2021, has included key JTLs and JMETs to be met in the Army Operating Plan for the design of UNIFIED RESOLVE 22 and MAPLE RESOLVE 22<sup>24</sup>. This is the first deliberate effort to provide a means to measure the effectiveness of joint training that has traditionally been part of the exercise designs.

16. Current Army Training doctrine mandates the design, execution and validation of training for both individual and collective through the Army Systems Approach to Training (ASAT), a

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<sup>21</sup> Department of National Defence, *Strong Secure Engaged, Canada's Defence Policy*, (Ottawa, ON: 2017), 36.

<sup>22</sup> Department of National Defence, *1 Canadian Division Lessons Observed Collection* (Kingston, ON: 2021).

<sup>23</sup> Department of National Defence, *1 Canadian Division Lessons Observed Collection* (Kingston, ON: 2021).

<sup>24</sup> Department of National Defence, *Canadian Army Operating Plan Fiscal Year 2021-2022, Version 1* (Ottawa, ON: 1 February 2021), Chapter 1, Appendix D. As Acting Chief Army Collective Training, it was observed that joint training, and the identification of Joint Task Lists and Joint Mission Essential Tasks were only published to secure Canadian Joint Operations Command collective training funding. This was added to ensure that joint tasks were consciously being incorporated into exercise designs and to provide a means to measure success.

quality control process that equally applies to individual and collective training exercises<sup>25</sup> - “The ASAT quality control process consists of six steps: analysis, design, development, conduct, evaluation and validation”<sup>26</sup>. In particular, the first four steps may be attributed to the design and execution of training. Evaluation refers to the ability of the target audience to achieve the standard and/or training objectives. Validation, the final step of ASAT, is intended to confirm that the training itself – is the training fit for purpose?

17. Historically, ASAT, step six, validation of the training was conducted by a dedicated team to support the field force. However, with the reorganization the Canadian Army in 2013 the Land Force Doctrine and Training System (LFDTs) was renamed to CADTC. Along with the name change, the ASAT validation capabilities were divested<sup>27</sup> – in particular collective training. This would create a void to ensure that the full ASAT process could be followed to evaluate training. With the changes made to training, including incorporating DATE Europe as the new contemporary training environment and similar to progression in arctic training, the sixth step of ASAT would be critical to ensure that modernized training remains fit for purpose. Ignoring the last step of ASAT validation would be an opportunity lost.

## RECOMMENDATIONS

18. The contemporary training environment, DATE Europe, should remain extant as it incorporates pan-domain concept. The environment is relevant to Canadian commitments to both NATO and to current events in Eastern Europe. Re-orienting the Army to a new geographic theater would result in sunk costs. However, to mitigate for the potential to respond to instability in other geographic regions may be addressed through Theatre Specific Training and Mission Specific Training.

19. Current initiatives to modernize Arctic training should continue. Arctic training is currently being revised. The course taken is to refresh training requirements for individuals to survive and to operate in the high Arctic. Collective training requirements will refresh training objectives intended for Canada’s winter climate and include operating in the high Arctic. This refresh is outdated and needs to reflect current threats to effective exercise sovereignty and to ensure readiness of land forces are relevant to current and future expected tasks.

20. For individual training, the planned refresh of CAO 24-04, Individual Battle Task Standards, should remain extant. However, as the document is not published, it should be reviewed to factor adversarial pan-domain effects, with the understanding that Army forces may not have supremacy over all domains. By viewing in this manner, will provide a means to seek out key Individual Battle Task Standards that may need to be maintained when operating in a degraded pan-domain environment.

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<sup>25</sup> B-GL-300-008/FP-001, Training for Land Operations.

<sup>26</sup> B-GL-300-008/FP-001, Training for Land Operations (Kingston, ON: 2014), 5-3-1.

<sup>27</sup> Wikipedia, “Canadian Army Doctrine and Training Centre,” last modified 28 September 2021, [https://en.wikipedia.org/wiki/Canadian\\_Army\\_Doctrine\\_and\\_Training\\_Centre](https://en.wikipedia.org/wiki/Canadian_Army_Doctrine_and_Training_Centre). After the reorganization and renaming of LFDTs to CADTC, individual training ASAT validation would become the responsibility of Army Lessons Learned and Collective Training would be divested.



21. Collective Training Army Battle Tasks standards remain extant and are relevant for the Army to exert land power against Canada's adversaries. Battle Tasks Standards should focus on the occupations' tasks, is agnostic, and not dependent on the geography or operating environment. Validation exercises could be designed to incorporate adversarial pan-domain threats and if so in an environment where supremacy may not exist in a particular or multiple domains. This would increase the development of tactics, techniques and procedures for the field force to operate in such contested environments. This direction may be emphasized by promulgating direction in the Army Operating Plan, chapter for training.

22. It is recommended that Joint Task Lists and Joint Mission Essential Tasks continue to be promulgated within the Canadian Army Operating Plan. This will continue to reinforce its importance and provide a means to measure the efficacy of joint training for Exercises UNIFIED RESOLVE and MAPLE RESOLVE.

23. Strategic Assets and how they are employed at the operational/tactical level need to be clearly defined. Observations from 1 Canadian Division suggest that the Brigade headquarters are duplicating efforts. The force employment concept of these domains needs to be promulgated to the entire field force including the Canadian Staff and Command College and the Army Operations Course. This may be achieved through a Doctrine Note where doctrine does not currently exist.

24. The Army System's Approach to Training (ASAT) is widely used however, step six, validation of the process has been ignored over the years. This provides an opportunity for the Army to ensure that the training is fit for purpose. Where a proper ASAT validation, step six, cannot be completed due to lack of personnel, a vigorous after-action review focused on pan-domain capabilities should be conducted. A vigorous process should develop tactics, techniques, and procedures to mitigate the impacts of the cyber and space. Further, the vigorous after-action reports should also confirm or deny that Joint Task Lists and Joint Mission Essential Tasks are adequately achieved.

25. ABCANZ and interoperability were not discussed in this paper and are just as important to be considered in the revision of training and development of capabilities. It is recommended that both ABCANZ and interoperability training objectives be reviewed separately and made relevant to advance training goals.

## CONCLUSION

26. It is evident that the Canadian Army is in the process of modernizing and adapting to function in a pan-domain effort. The introduction of the DATE Europe campaign into Army training provides a current and relevant pan-domain adversary for training the entire field force to a near-peer threat. Initiatives with Arctic training Current modernization should be maintained and progress. These changes are positive and should not be accepted as "job done" due to being renewed. The Army System Approach to Training, in particular step six, validation, will be critical to measure the effectiveness of these changes and if they are fit for purpose to build readiness in the field force. Failing to conduct ASAT validation, step 6, the training and not the training audience, may ill prepare the field force for the next war.

**Annex:**

Annex A      References

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