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## Evaluation of the Maintenance and Currency of CF Doctrine

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## TABLE OF CONTENTS

<b>LIST OF ACRONYMS.....</b>	<b>i</b>
<b>RESULTS IN BRIEF .....</b>	<b>iii</b>
<b>INTRODUCTION.....</b>	<b>1</b>
Background .....	1
Aim .....	3
Scope .....	3
Objectives.....	3
Methodology .....	3
Evaluation Criteria .....	3
<b>CURRENT SITUATION .....</b>	<b>5</b>
The Doctrine Cycle .....	5
CF Joint Doctrine Production Past and Present .....	7
Status of Joint Doctrine Publications .....	8
CF Lessons Learned .....	10
CF Doctrine Governance and Oversight.....	10
United States .....	11
United Kingdom .....	12
Other Allied/Alliance Doctrine Production .....	14
<b>THE ROLE AND IMPORTANCE OF DOCTRINE.....</b>	<b>17</b>
Related Studies/Documents/Citations .....	21
<b>FINDINGS AND RECOMMENDATIONS .....</b>	<b>27</b>
Current State of CF Joint Doctrine Development.....	27
The Consequences of not Taking Remedial Action .....	28
Recommendations.....	29
<b>ANNEX A—MANAGEMENT ACTION PLAN .....</b>	<b>A-1</b>
<b>ANNEX B—CF DOCTRINE HIERARCHY AS OF NOVEMBER 2006 .....</b>	<b>B-1</b>
<b>ANNEX C—UNITED STATES JOINT DOCTRINE HIERARCHY 2006.....</b>	<b>C-1</b>
<b>ANNEX D—UK JOINT DOCTRINE HIERARCHY AS OF MAY 2006 .....</b>	<b>D-1</b>
<b>ANNEX E—AUSTRALIAN DEFENCE FORCE DOCTRINE HIERARCHY 2006 .....</b>	<b>E-1</b>



## LIST OF ACRONYMS

ABCA	America, Britain, Canada and Australia
ADF	Australian Defence Force
ADFWC	Australian Defence Force Warfare Centre
ADM(Mat)	Assistant Deputy Minister (Materiel)
AJP	Allied Joint Publication
ALSA	Air, Land, Sea Application Center
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance
Canada COM	Canada Command
CANOSCOM	Canadian Operational Support Command
CANSOFCOM	Canadian Special Operations Forces Command
CAS	Chief of the Air Staff
CAT	CDS Action Team
CBRN	Chemical, Biological, Radiological, Nuclear
CD&E	Concept development and experimentation
CDS	Chief of the Defence Staff
CEFCOM	Canadian Expeditionary Force Command
CF	Canadian Forces
CAFWC	Canadian Forces Aerospace Warfare Centre
CFD	Chief Force Development
CFDB	Canadian Forces Doctrine Board
CFEC	Canadian Forces Experimentation Centre
CFLLOC	Canadian Forces Lessons Learned Oversight Committee
CFMWC	Canadian Forces Maritime Warfare Centre
CFWC	Canadian Forces Warfare Centre
CFWDA	Canadian Forces Warfare Developmental Authority
CIMIC	Civil-Military Cooperation
CLS	Chief of the Land Staff
CMP	Chief Military Personnel
CMS	Chief of the Maritime Staff
COIN	Counterinsurgency
CRS	Chief Review Services
DCDC	Development, Concepts and Doctrine Centre
DCDS	Deputy Chief of the Defence Staff
DFSA	Director Future Security Analysis
DGMPO	Director General Military Plans and Operations
DGSP	Director General Strategic Planning
DND	Department of National Defence
DOS SJS	Director of Staff, Strategic Joint Staff



DP	Defence Plan
DPDT	Director Plans, Doctrine and Training
ECS	Environmental Chief of Staff
FP	Force protection
HSS	Health services support
IFD	Integrated Force Development
IOC	Initial operational capability
JCRB	Joint Capability Requirement Board
JDCC	Joint Doctrine and Concepts Centre
JDSC	Joint Doctrine Steering Committee
JDWC	Joint Doctrine Working Committee
JFCOM	Joint Forces Command
JP	Joint Publication
JWC	Joint Warfare Centre
JWP	Joint Warfare Publication
LFDTs	Land Force Doctrine and Training System
MIP	Master Implementation Plan
NATO	North Atlantic Treaty Organisation
NBCD	Nuclear, Biological, Chemical Defence
NDHQ	National Defence Headquarters
NEO	Non-combatant Evacuation Operations
OAG	Office of the Auditor General
PAdmS	Personnel Administrative Support
PJHQ	Permanent Joint Headquarters
PRICIE	Personnel, Research and Development, Infrastructure, Concepts, Information and Equipment
PRT	Provincial Reconstruction Team
SCF	Standing Contingency Force
SCTF	Standing Contingency Task Force
SIOC	Strategic Integrated Operating Concept
SO	Special operations
TTPs	Tactics, Techniques and Procedures
UAV	Unmanned aerial vehicle
UK	United Kingdom
UOR	Unforecasted operational requirement
US	United States
VCDS	Vice Chief of the Defence Staff



## RESULTS IN BRIEF

An evaluation of the maintenance and currency of Canadian Forces (CF) doctrine was included in the 2005/2006 Chief Review Services (CRS) Work Plan as a result of concerns expressed over the effectiveness of, and the decreasing involvement of senior leaders in, doctrine development and related processes above the tactical level.

This evaluation examines the importance of doctrine development in building and maintaining a strategically relevant, operationally responsive and tactically decisive military force. It assesses the effectiveness of CF doctrine development in support of that objective, and identifies opportunities to address noted deficiencies. In so doing, it also examines Canada's major allies who have invested significant resources in doctrine development and in the creation of centralized joint warfare centres to facilitate an integrated approach to the inter-connected components of the doctrine cycle.

From the termination of World War II until the end of the Cold War, with its attendant bi-polar conventional warfare stability, CF military doctrine at all levels evolved relatively slowly. North Atlantic Treaty Organisation (NATO) and other allied doctrine often filled the void where no CF doctrine existed, or augmented that which had been developed internally. However, fundamental changes in the global security environment in recent years and Canada's commitment to assuming an increased leadership role in international expeditionary operations have spawned new or renewed CF operational roles (e.g., counterinsurgency (COIN), Provincial Reconstruction Teams (PRT), amphibious warfare) that require effective joint and combined interoperability. To keep pace with these changes and others brought about through CF Transformation, the whole military doctrine development cycle, and not just doctrine as a stand-alone discipline, requires far greater agility.

### Overall Assessment

Doctrine development above the tactical level has not kept pace with recent changes to CF command and control architecture and new capabilities introduced through CF Transformation. Coherently communicated and readily accessible military-strategic and joint operational doctrine is a necessary key enabler for interoperability and to achieve integrated operational effects. Remedial action is urgently required to ensure that current deficiencies do not negatively influence the achievement of military objectives.

## Findings

This evaluation noted the current dearth of investment in CF doctrine development above the tactical level and the lack of clarity surrounding doctrine roles and responsibilities within the recently introduced CF command and control architecture. The report's principal findings are as follows:

- a. There is a lack of published military-strategic doctrine to bridge national strategy with the joint operational and tactical levels;
- b. Joint operational doctrine, which in turn represents the vital bridge between military-strategic and Environmental doctrine, is significantly deficient and in need of attention;



- c. The lack of a rigorous joint doctrine development process and a failure to follow the published doctrine development process has led to a breakdown in the important synergy between doctrine, concept development and experimentation, lessons learned and training, and resulted in an inability of training at all levels to keep pace with emerging doctrinal developments;
- d. The CF joint doctrine development process lacks agility and does not have a mechanism to get emerging doctrine quickly into the hands of those who need it;
- e. There is a general lack of understanding and appreciation within the CF for the important role of joint operational doctrine; and
- f. There is a lack of training and professional education in joint doctrine and doctrine development.

## Recommendations

The following recommendations seek to address the above-noted deficiencies:

- a. Introduce a military-strategic capstone doctrine manual for the CF on a priority basis;
- b. Designate a CF doctrine authority to provide national direction and guidance;
- c. Introduce an executive doctrine steering/oversight body to ensure senior-level involvement in doctrine development;
- d. Review joint doctrine staff roles, responsibilities and assigned resources at the strategic and operational levels;
- e. Create a CF centre that will coordinate all doctrine cycle processes to include ensuring the coherence of doctrine production with the respective Environmental doctrine/warfare centres;
- f. Prioritize and address identified gaps in CF joint operational doctrine (e.g., COIN, PRT) in order to re-vitalize the joint doctrine development process;
- g. Ensure that doctrine informs capability development and force development; and
- h. Raise awareness within the CF officer corps of the importance of military-strategic and joint operational doctrine.

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**Note:** For a more detailed list of CRS recommendations and management response, please refer to [Annex A](#)—Management Action Plan.

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## INTRODUCTION

Doctrine is defined as the “**fundamental principles by which the military forces guide their actions in support of objectives. It is authoritative but requires judgment in application.**”

A-AE-025-000/FP-001 Canadian Forces Doctrine Development

### Background

This evaluation presents an independent view of doctrinal issues at the strategic and joint operational levels across the CF. It also includes selected discussions of the currency and adequacy of the principal Environmental areas of doctrinal responsibility. In addition, this evaluation provides insights into the linkages between doctrine and the attendant functions of concept development, lessons learned, validation and its impact on training. It is recognized that the ongoing CF Transformation efforts have had a significant impact on doctrine issues at all levels of the CF and the Department of National Defence (DND), and that some reporting relationships relevant to this topic continue to evolve.

This evaluation was included in the CRS Work Plan as a result of concerns that CF senior leadership was gradually losing sight of its role in doctrine development and related processes. This was being exacerbated by a concomitant loss of capability in generating adequate lessons learned at the strategic and joint operational levels.

The mission of the CF has remained relatively unchanged since the 1990s: to defend Canada and Canadian interests at home and abroad while contributing to international peace and security. The Canadian government is committed to providing combat-capable maritime, land, and air forces to respond, at short notice, to fulfill a wide range of missions and tasks. What has changed is the evolving nature of operations to which the CF has been committed since the first Gulf War in 1991.

The current CF doctrine system is grounded in individual navy, army and air force historical operational knowledge and experience at the tactical and operational levels within an alliance/coalition framework. It has generally sought to be compliant with NATO doctrine at all levels. This body of existing doctrinal knowledge, designed for a more or less conventional enemy, has been challenged by the rapid pace of change brought on by the evolving nature of recent operational deployments and technology. These changes have forced a divergence from the traditional, relatively immutable “war-fighting” cycle of concept development, doctrine, training, and lessons learned which had been the principal feature of CF operations for decades (see Figure 4).

These challenges have led senior CF officers and academics to express some concern about the current state of doctrine development, particularly at the strategic and joint operational levels. All three Environments have, or are assigning, significant resources devoted to tactical-level concept development, lessons learned, training and doctrine. The navy has the Canadian Forces Maritime Warfare Centre (CFMWC) based in Halifax, the army has the Land Force Doctrine and





Training System (LFDTS) in Kingston, and the air force has recently created the Canadian Forces Aerospace Warfare Centre (CFAWC) in Trenton. These three centres of single-Environment expertise concentrate principally at the tactical level, with some ongoing work in Environmental operational-level doctrine.

***“Doctrine has, or should have, an extraordinary impact on the strategy process, and doctrine is an ill-defined, poorly understood and often confusing subject in spite of its considerable importance.”***

Dennis Drew and Don Snow, *Military Doctrine – Fundamental, Environmental and Organizational*, from Making Strategy: An Introduction to National Security Processes and Problems, Chapter 11, August 1988.

With the advent of CF Transformation and dissolution of the Deputy Chief of the Defence Staff (DCDS) Group commencing in 2005, the Director Plans, Doctrine and Training J7 Doctrine (DPDT J7 Doc), the central staff body which had the responsibility of providing joint doctrine, including managing the Canadian Forces Doctrine Board (CFDB), was disbanded and its resources dispersed in “ones and twos” to a number of the new strategic and operational-level organizations. However, none of the new organizations were initially tasked under CF Transformation to assume joint operational-level doctrine production. Chief Force Development (CFD) was assigned this task in late fall 2006. This dispersal of resources had the effect of diluting what had been a marginal “critical mass” of capable doctrine development personnel at the joint operational level, just as new joint operational-level headquarters and governance structures were being introduced.

In the area of concept and doctrine development, Canada’s principal allies, each in the midst of its own military transformation efforts, have taken a very different approach to that taken by the CF. The United Kingdom (UK) created a centralized Joint Doctrine and Concepts Centre (JDCC) (since re-named the Development, Concepts and Doctrine Centre), the Australians have had a Joint Warfare Centre for several years, and the United States (US) has a number of separate organizations dedicated to the production of strategic and operational-level joint doctrine, including a Joint Warfare Centre, all under the aegis of their US Joint Forces Command. The majority of Canada’s other European allies have similarly established their own comparable “joint warfare centres.”

In the current circumstances, with an ever-increasing demand on staff-trained officers to fill all the vacancies in the newly created operational headquarters, and a concomitant requirement to provide personnel for deployed operations, it has been expressed to the CRS evaluation team that it will be a challenge for the CF to build/rebuild an adequate doctrine development capacity to match the capabilities possessed by our allies.

A senior CF staff officer stated to the CRS evaluation team that “doctrine is the purview of generals.” However, with a few notable exceptions, doctrine development and production at the strategic and joint operational levels has effectively ceased. It will take a conscious decision by CF senior leadership to re-establish this capability.



## Aim

The aim of this project was to evaluate the maintenance and currency of CF joint operational doctrine, and its relationship with the military-strategic level of warfare and Environmental doctrines.

## Scope

The evaluation team took into account the current direction provided to the CF on doctrine development contained in A-AE-025-000/FP-001, “*Canadian Forces Doctrine Development*,” May 2003. It included reference to the impact on doctrine of the extant defence policy framework, the CF Strategic Operating Concept, and the developing CF force employment construct being executed through the CF Transformation process.

## Objectives

There were two principal evaluation objectives:

- Determine the currency and adequacy of approved joint and operational-level doctrine publications; and
- Provide recommendations as to what steps can be taken to improve the integration of lessons learned, experimentation, technological change and revised CF defence policy, with strategic and operational-level doctrine.

## Methodology

In order to assess the CF doctrinal support capability required to match CF commitments, the following elements were considered:

- Review of available open literature, internal documentation, applicable policies or agreements and the implementation thereof;
- Examination of the doctrinal issues from the perspective of stakeholders, both inside and outside the CF/DND; and
- Comparison of the CF doctrine development process with those of our major allies and alliance partners (e.g., NATO, ABCA).

## Evaluation Criteria

In response to fundamental changes in the global security environment, nations and alliances are currently engaged in significant military transformation to develop relevant capabilities, enabled by appropriately transformed organizational structures. In Canada, the stated end-state of CF Transformation is “*a CF that is strategically relevant, operationally responsive and tactically decisive, supported by an effective, efficient and adaptable defence institution, and capable of operating within a dynamic and evolving security spectrum.*”<sup>1</sup>

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<sup>1</sup> CDS Planning Guidance – CF Transformation, File # 1950-9 (CT), paragraph 8, October 2005.



In terms of assessing the role of doctrine in contributing to the desired end-state, focusing questions for this evaluation include:

- (1) Are strategic and joint doctrine important elements for a transformed CF to achieve the intended end-state?
- (2) If so, does the CF have the appropriate doctrine, doctrine development processes and associated assigned resources in place to support end-state achievement?
- (3) If CF doctrine or doctrine development deficiencies exist, what are the potential consequences in terms of impact on end-state achievement?
- (4) What opportunities exist to address CF doctrinal deficiencies?



## CURRENT SITUATION

### The Doctrine Cycle

The CF Joint Doctrine publication “*Canadian Forces Doctrine Development*” (A-AE-025-000/FP-001), 12 May 2003, provides the approved authoritative direction for the creation, production and promulgation of all CF doctrine. This document provides guidance for the procedures and processes to be followed in the publication of any CF doctrine.

Throughout the duration of the Cold War, institutional thinking had led to a highly structured and quite rigorous doctrine development cycle. There was often little need seen within the CF in particular, and NATO in general, to modify doctrine at the operational and strategic levels of operations. The complete developmental cycle is illustrated in Figure 1.

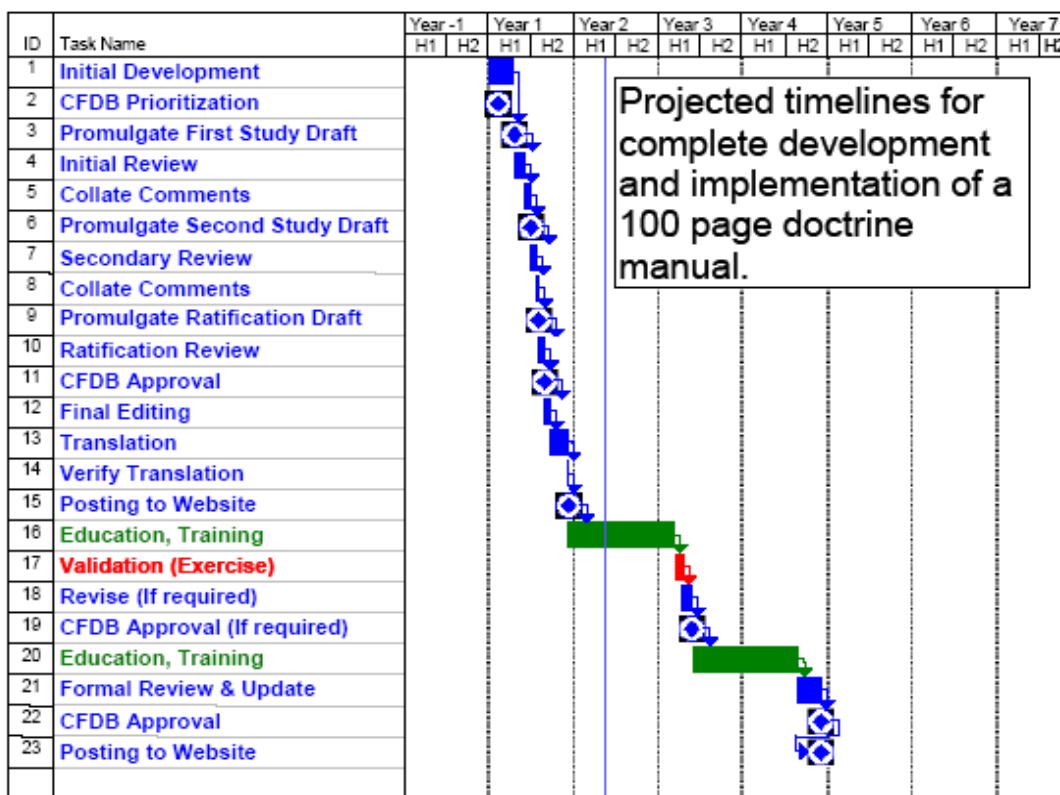


Figure 1. The Doctrine Development Cycle.

While this process has been qualified as “ideal,” it is of note that it requires an average cycle time of three years; it remains the officially sanctioned course of action to be followed by CF doctrine producers. Doctrine development is not an isolated function, and must be put into context within the continuum of CF force development and employment activities. The following (Figures 2 and 3) are generic views of how doctrine influences, and is influenced by, other factors:



Figure 2. What Affects Doctrine.

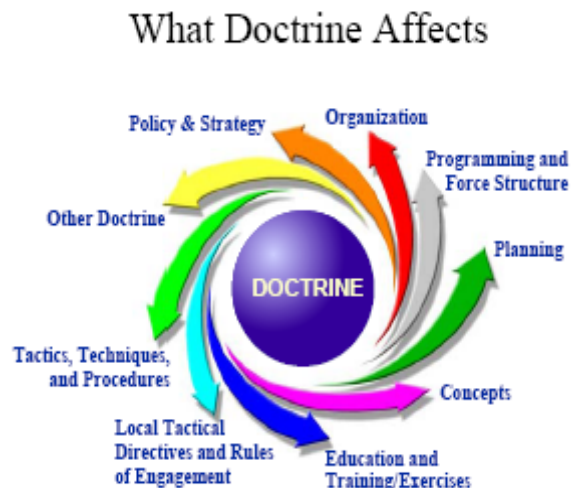


Figure 3. What Doctrine Affects.

These views, from CF and NATO doctrine publications, illustrate the complex inter-relationships in which doctrine is situated. It is not a stand-alone, self-perpetuating activity but rather an equal player providing its necessary contribution in many areas. What should also be clear is that if doctrine becomes isolated or neglected, it will have direct impacts on the rest of these activities, both in the short and long term.

Another way of illustrating the generic cyclic nature of the doctrine development process is as follows:

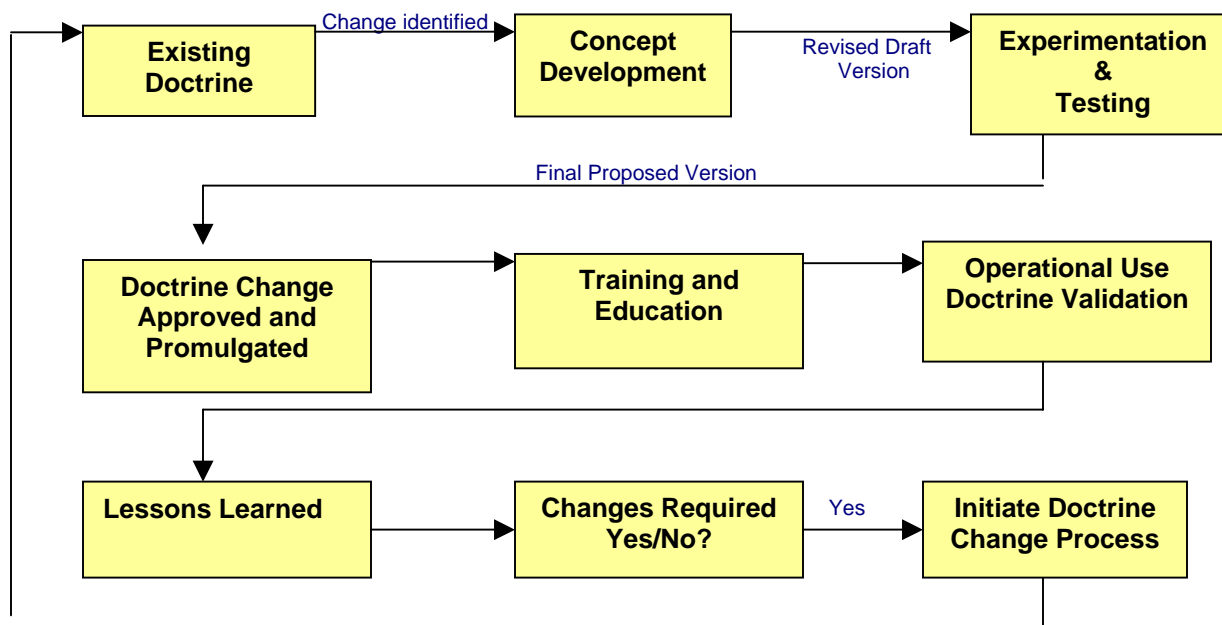
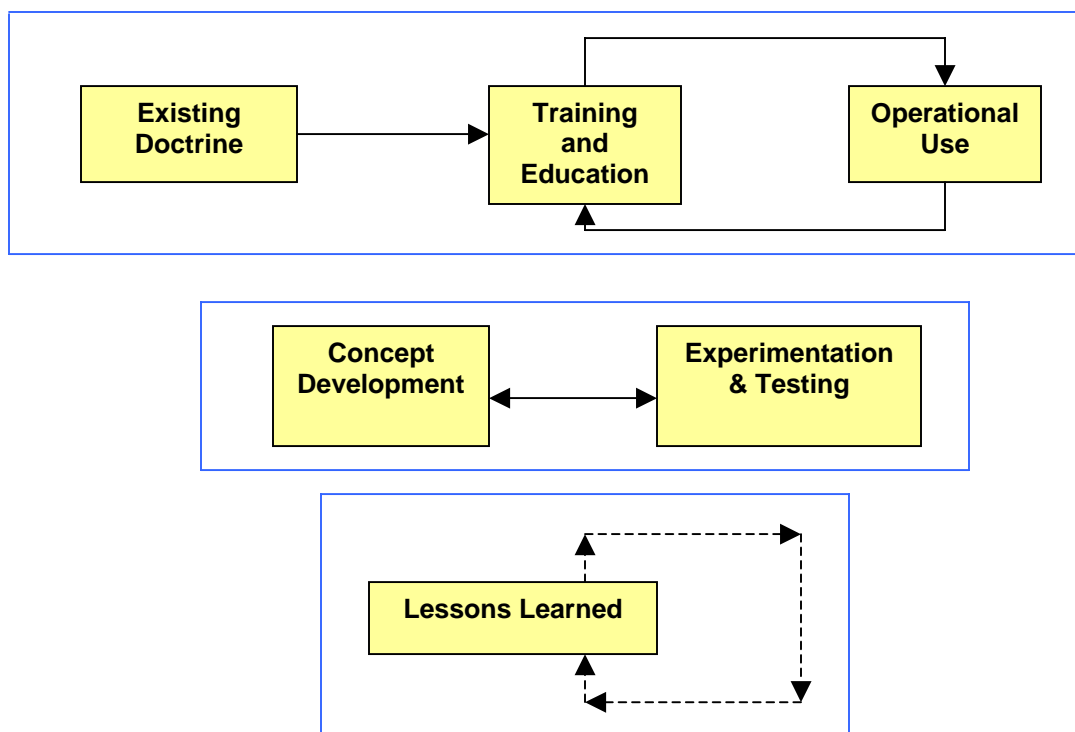


Figure 4. Ideal Doctrine Cycle Flow.

While Figure 4 shows the NATO/ABCA recognized doctrine process, what has been observed by the evaluation team as actually occurring at the CF operational (which by definition is joint) and strategic levels is the following:



**Figure 5. CRS Evaluation Team Observed Doctrine Cycle Flow.**

What should have been inter-linked processes were actually occurring as distinct groupings of activities with little coordination between them. Some of the universally accepted doctrine cycle processes such as validation at the operational and strategic levels were not performed within the corporate memory of CF joint doctrine writers interviewed by the evaluation team. In late fall 2006, CFD created a joint lessons learned framework which, once implemented, should result in tighter linkages between a number of the doctrine cycle activities.

### CF Joint Doctrine Production Past and Present

From the time of unification of the CF in 1968 until 2002 when initial work commenced on an operational-level doctrinal framework, there had been only minimal effort put into the production of Canadian joint operational and strategic-level doctrine publications. Most of what could be called “Joint” were *de facto* copies of NATO publications, with CF input relegated to comments on cyclically revised versions of those same documents.

Interviewees offered a number of reasons for this state of affairs, such as the conviction that Canada would always be in a coalition, would never assume a leadership role, and therefore had no real need for its own joint operational-level doctrine.

Throughout the Cold War, and past the first Gulf War in 1991 (where a rudimentary Joint Staff at National Defence Headquarters (NDHQ) was created), the CF maintained its input to higher levels of doctrine through the DCDS/Director General Military Plans and Operations (DGMPO) staff or through the various Environments or subject matter experts, particularly for technical publications. Within DGMPO, desk officers would be assigned to maintain their own particular NATO publication or series of publications in relative isolation from the rest of the CF. There was little input from staffs outside DGMPO concerning CF operational or strategic-level doctrine publications.

During the mid to late 1990s, a CFDB was created under the auspices of the Director General Strategic Planning (DGSP), a hierarchy of CF publications was established and efforts were made to coordinate the production of CF joint doctrine publications, albeit at a rudimentary level.

In 2002, as a result of the *Joint Doctrine Interoperability Report*, an augmented DPDT J7 Doc organization was created specifically to remedy the acknowledged shortfalls in CF joint doctrine. The staff, one Cdr/LCol and five LCdr/Maj, struggled from the outset to create and maintain the currency of out-of-date CF publications, while providing staff augmentation to operational missions and attending myriad NATO and ABCA doctrine-related meetings. Those officers posted to this section throughout this period as doctrine authors seldom had attended Canadian Forces College or equivalent higher-level staff courses, or had undertaken relevant post-graduate studies, and had limited to nil prior exposure to doctrine above the tactical level. This situation further challenged the production of strategic and operational-level doctrine publications, and also had the effect of slowing down an already outdated process. Much of the work that was accomplished by this section was driven purely by personal strengths or interest in various topics rather than overall knowledge of, or a systematic approach to, the doctrine production field.

The DPDT J7 Doc staff was disbanded in 2005 as a result of CF Transformation activities. During the final year of its existence, this cell had one Cdr and one Maj actually working in doctrine production. The remainder were either deployed on operations, were on course, or the positions were left vacant. As a result, the CF “hierarchy” of joint publications remained in various states of draft production, or were set aside for higher priority tasks.

## **Status of Joint Doctrine Publications**

There is currently no “capstone” doctrine publication for the CF. A capstone publication is intended to provide the highest level of approved direction to the military, and translates the politico-strategic/national direction into guidance for the joint action of the CF. It should also describe the strategic security environment, specify fundamentals for the “Canadian Way of Warfare/Operations,” and address challenges for the future.

The CF does have a hierarchy of joint publications (see [Annex B](#)), including the provision for a series of “keystone” publications, which are the main or key doctrine publications within each functional area normally aligned with the “continental” staff designations (e.g., J1 – personnel, J2 – intelligence, J3 – operations, etc.). With the exception of certain specialist joint publications such as Chemical, Biological, Radiological and Nuclear (CBRN) Defence, certain legal doctrine, and the recently published CF joint force protection doctrine manual, the CF joint operational-level doctrine hierarchy is outdated, including:



## **Command and Control**

Communications  
Command and Control  
Computers  
Intelligence  
Information Management  
Information Operations  
Media Relations  
Public Affairs

## **Operational Functions**

Operational Procedures  
Operational Planning  
Targeting

## **Sustainability**

Logistics  
Engineering Support  
Health Services Support  
Personnel Administration

## **Force Protection (FP)**

FP covers a very broad range of activities and includes: preventive medicine; computer network defence; Nuclear, Biological and Chemical Defence (NBCD)\*; asymmetric threat response; and the Canadian Military Alert System.

\*The former NDHQ NBCD staff maintained extensive and current NBCD doctrine; however, until the CF joint force protection doctrine manual<sup>2</sup> was published in November 2006, all other doctrinal aspects in this group were non-existent, outdated or existed in a multitude of documents, resulting in a lack of coherence.

## **Specialized Joint Doctrines**

Non-combatant Evacuation Operations (NEO)  
Civil-Military Cooperation (CIMIC)

Special Operations Forces—While doctrine for Special Operations Forces exists at the tactical level, there is no guidance provided at the operational or higher levels.

This list does not include doctrine for which the CF had never developed a joint capability such as amphibious warfare and COIN operations. The Standing Contingency Force (SCF) project is tasked with the production of operational-level amphibious warfare doctrine—which is also by definition a joint function for the CF. Responsibility for the creation of COIN joint operational doctrine has yet to be assigned.

Also to be included in this list is operational and strategic doctrine for PRTs—a significant part of the new CF/DND 3D concept. The need for this doctrine has been dismissed by some of the interviewees for this evaluation as it was felt to be included under the all-encompassing envelope of “Peace Support Operations.” Other NATO and ABCA allies have seen this in a different light, with the UK creating a Doctrinal Note to provide strategic and operational-level doctrinal guidance to their military<sup>3</sup> and the US providing a similar temporary doctrinal direction.

<sup>2</sup> B-GJ-005-314/FP-000, Joint Doctrine Manual – CF Joint Force Protection, 22 November 2006.

<sup>3</sup> Doctrinal Note 05/1 AC 71882, Provincial Reconstruction Teams, January 2005.





The situation at the tactical level is quite different. The army, with its doctrine organization in LFDTs, the navy with the CFMWC, and the air force with its newly created CFAWC, have the processes in place or are in the process of creating them for the development, production, validation and oversight of their respective single-Environment tactical and operational doctrines.

## CF Lessons Learned

At the operational and strategic levels, a rudimentary centralized lessons learned capability was being developed in DPDT J7, which was found to be ineffective by several studies.<sup>4</sup> Resources that were dedicated to this function have been dispersed to the operational commands. There was no centralized strategic-level capability to capture lessons and integrate them into new concepts and produce revised doctrine, training or even procedures at the strategic and operational levels. In late fall 2006, CFD and the Strategic Joint Staff created a new CF lessons learned framework with implementation occurring at the time of the writing of this evaluation. Ownership of the framework will be held by CFD.

The lessons learned function is uneven at the tactical level. All operational and environmental command staffs have lessons learned cells, but they are organized and structured differently to meet their respective mandates. The army is the most organized to capture lessons from operations and exercises. Both the navy and air force are aware of their respective shortfalls and are taking positive steps to address them. Also, as part of the new CF lessons learned framework, a CF Lessons Learned Oversight Committee (CFLLOC) has been created to provide a joint forum for information sharing and coordination of all lessons learned activities.

## CF Doctrine Governance and Oversight

As noted previously, initial joint doctrine coordination was undertaken by DGSP through the CFDB. However, a number of shortfalls in the process were identified that led to the *Joint Doctrine Interoperability Project*, sponsored by the DCDS.

The DCDS-approved recommendations from the 2002 *Joint Doctrine Interoperability Report* created a reporting relationship for joint doctrine oversight and approval at the Joint Capability Requirement Board (JCRB) level, with the Vice Chief of the Defence Staff (VCDS) chairing this committee. However, this reporting relationship was never enacted. Instead, the relationship was devolved into oversight and doctrine approval through the CFDB, chaired by the Director General Joint Force Development. It met several times a year for three years, ceasing to function in April 2005 due to CF Transformation. Despite its critical strategic oversight role, toward the end CFDB membership had been devolved to mid-level staff officers. Senior CF leadership therefore continued to be isolated from joint doctrine development, which became less “the purview of generals” than of working-level staff who quite often worked on doctrine only as a secondary duty and as time permitted, and often in the absence of executive direction. There has been no oversight of the joint doctrine function since this time.

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<sup>4</sup> As an example see Strategic Level Lessons Learned: The Afghanistan Experience, Strategic Planning Operational Research Team, Draft, 26 August 2005.



Unlike our closest allies, the CF does not have a central organization that has the responsibility and authority to ensure that Environmental or specialized doctrines are concordant with higher-level joint doctrines. In the absence of this oversight, at the present time, the Environmental warfare centres/doctrine production organizations are informally coordinating their doctrine production in an attempt to ensure compatibility. Some direction is provided in the “CF Doctrine Development” handbook to all doctrine custodians to ensure harmonization of their doctrine with other existing doctrines.

Through CF Transformation, CFD has been designated as a focal point for all capability development activities at the strategic and operational levels. This effort recognizes, to a degree, the requirement for a more coherent capability development process and its enablers, which will include the doctrine development cycle as a necessary element. This is a step in the right direction to accord doctrine development its proper place in the capability development process.

## United States

The US armed forces, with Congressional direction to undertake joint operations under the Goldwater-Nichols legislation,<sup>5</sup> have developed a complete hierarchy of joint doctrine at both the operational and strategic levels. At the top of the US doctrine hierarchy ([Annex C](#)) is Joint Publication 1 (JP 1), *Joint Warfare of the Armed Forces of the United States*. JP 1 ties joint doctrine to the US national security strategy and national military strategy and describes the military’s role in the development of national policy and strategy. It also “provides the linkage between joint doctrine and the contribution of other government agencies and multinational endeavours.”<sup>6</sup> US joint doctrine provides the lead or central doctrine in many multinational alliance operations and international military fora, with much of current NATO and ABCA doctrine being derived directly from US doctrine.

US Joint Forces Command (JFCOM) has the principal task of joint doctrine production, coordination, and validation at the operational and strategic levels. They have a centralized doctrine and concepts centre in Suffolk, Virginia, with close links to the NATO Transformation Command in Norfolk, Virginia.

The US military doctrine cycle, much like that for NATO and the CF, had been seen as a fairly stable, routine effort, with review and revision timelines measured in years. This has changed significantly over the past five years. Now, there are strenuous efforts being made to complete the whole cycle as quickly as is feasible, particularly for those areas that are experiencing rapid shifts in technologies and techniques—areas such as Joint Fires as part of Effects-Based Operations (in US terminology), and the growing need for distinct COIN doctrine at all levels.

With regard to doctrine oversight, the US has a Chairman of the Joint Chiefs of Staff Instruction on Joint Doctrine Development (similar instructions are produced for both the UK and Australian militaries). This instruction directs all branches of the US military to develop and establish doctrine for all aspects of the joint employment of their armed forces, and also delegates overall responsibility for joint doctrine production and coordination to the Joint Staff J7. To this end, the J7 is responsible for ensuring that all single-Environment/branch doctrine is

<sup>5</sup> The Goldwater-Nichols Department of Defense Reorganization Act of 1986 (10 USC 153(a)(5)(A) PL 99-433).

<sup>6</sup> Joint Warfare of the Armed Forces of the United States, 14 November 2000.



in line with higher-level capstone/keystone doctrine publications. To quote an interviewee, “The Joint Staff has the hammer when it comes to doctrine arbitration issues.”<sup>7</sup> Only the Chairman of the Joint Chiefs of Staff can approve publications that will be called “joint.” In the US lexicon, joint doctrine contained in joint publications includes terms, tactics, techniques and procedures, and is a reflection of “what is taught, believed and advocated as what is right (i.e., what works best).”<sup>8</sup>

To the US military, doctrine at all levels is seen as a constantly changing entity, from the tactical through to the strategic. A 17 April 2006 doctrine update published by the US JFCOM J7 noted that 39 of 75 US joint publications (over 50 percent) were undergoing revision or development. This includes not only rapidly changing joint tactics, techniques and procedures (TTP), but also all of their keystone and capstone joint operational publications. They have also introduced the Joint Test Publication concept, which provides “a vehicle for field testing validated joint concepts.”<sup>9</sup> This allows for the rapid introduction of new concepts that have not yet been included in the written and approved doctrine manuals.

Lessons learned are an integral part of the doctrine cycle. Within the US military, each Branch/Environment has its own lessons learned centre, with the Center for Army Lessons Learned being the most well known. Within the US JFCOM organization, there are also two centres for lessons learned, one of which works at the operational and strategic levels and provides a tie-in with the Environments lessons learned centres. This centre has direct links to the JFCOM doctrine and concepts centre in Suffolk, Virginia, and a newer JFCOM adjunct called the Air, Land, Sea Application Center (ALSA) based out of Langley, Virginia. The ALSA captures joint lessons learned at the tactical level that must be cycled quickly into new concepts or revised operational-level training.

**US Summary.** The US has the most comprehensive and up-to-date doctrine hierarchy, joint and single service doctrine and concepts centres, and lessons learned centres of any Western military. Their doctrine hierarchy is driven from the top down by their senior leadership as a conscious decision to take ownership of higher-level concepts and doctrine. Their recent experiences in Iraq and Afghanistan have caused a significant shift in their concept development, doctrinal writing and education processes, with long-lead-time doctrine publications and lengthy, predictable rewrite schedules being a thing of the past. Doctrine at all levels is being re-written in ever-contracting time cycles. This has meant that any foreign militaries wishing to be doctrinally interoperable with US forces, including NATO countries, have had to keep pace or be faced with losing synchronicity with the US. The CF has managed this at the tactical, Environment levels, but has not kept up at the operational or strategic level.

## United Kingdom

As in the US military, the UK has a capstone doctrine publication, Joint Warfare Publication 0-01 (JWP 0-01), *British Defence Doctrine*, signed by their Chief of the Defence Staff (CDS), which tops their joint doctrine hierarchy. The US, while making efforts to remain interoperable with NATO, often takes the lead in doctrinal shifts or revisions that will ultimately be reflected

<sup>7</sup> Telephone Interview CRS Evaluation Team/CFLO JFCOM, 8 May 2006.

<sup>8</sup> Chairman of the Joint Chiefs of Staff Instruction, CJCSI 5120.02, 30 November 2004.

<sup>9</sup> CJCSI 5120.02.



in NATO publications. The UK, on the other hand, has attempted to remain as doctrinally linked to existing NATO publications as is possible, particularly Allied Joint Publication-01(B), *Allied Joint Doctrine*. The UK doctrine hierarchy, in diagrammatic form, always shows the linkages between UK and NATO publications (see [Annex D](#)).

*British Defence Doctrine* provides a uniquely British philosophical look at their way of conducting military operations at all levels. This publication notes that it is meant to explain and promote operational art and theory for a very wide variety of clients—not just senior military leaders but also government officials, agencies and a wider variety of potential alliance partners.

As noted elsewhere in this report, UK joint doctrine thinking experienced a radical shift in the 1990s. With the end of the Cold War came a realization that the nature of operations was changing rapidly, with the re-emergence of asymmetric threats and intra-state violence based on tribal or religious causes. There was a recognition in the UK that rapid national response to these changing threats meant a need for a joint operational response. With this recognition came the development of a joint strategic and operational-level concepts and doctrine centre.

Starting out as the JDCC, this organization has morphed into the Development, Concepts and Doctrine Centre (DCDC). This change reflected the need for more direct linkages to the complete doctrine cycle in one location if rapidly changing lessons learned, concepts and doctrine development were to be adequately reflected in up-to-date doctrine. At its core are 49 personnel ranking from BGen to LCol out of a total staff of 68, with primary responsibility for the complete doctrine cycle. This includes integral intelligence, lessons learned, doctrine concept development and doctrine production. This staff will grow to over 100 during the latter part of 2006 as more Land Force authors move into the Centre.

The DCDC has the responsibility to ensure that all doctrinal publications, including single service or specialist doctrines, are in congruence with the higher-level joint publications. This is accomplished with the close working relationship between DCDC and the Permanent Joint Headquarters (PJHQ), which comments on operational-level doctrine, and publishes the tactical-level joint publications, including joint TTPs, working closely with their counterparts in the other branches and services. DCDC also has a close link with the Director Joint Capability (on the central staff in London) and the Defence Logistics Organization, a government “agency” being the rough UK equivalent of the Assistant Deputy Minister (Materiel) (ADM(Mat)).

Oversight of their “federated approach to doctrine development”<sup>10</sup> is accomplished through two standing committees: the Joint Doctrine Steering Committee (JDSC) and the Joint Doctrine Working Committee (JDWC). The first is chaired by the Director, DCDC (a “two-star” position), who reports to the VCDS and provides guidance and direction on the development of joint doctrine. The second, chaired by the DCDC Assistant Director Joint Doctrine (a Col-level position), reports to the Director General Joint Doctrine and Concepts and is responsible for the detailed staffing and delivery of all joint doctrine publications, including the doctrine work plans and schedules.

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<sup>10</sup> Joint Doctrine Development Handbook, 0-00 (JWP 0-00), 2<sup>nd</sup> Edition, May 2005.

As of mid-2006, the DCDC staff estimated that 50 percent of the UK joint publications were under revision, including their capstone and several keystone joint operational-level publications. It is also of note that DCDC has foregone the strict three-year rotation of review of doctrine publications and now amends or revises publications as frequently as is necessary. It was stated that most DCDC publications could be reviewed and revised within 12 months.<sup>11</sup> In addition, the UK has a similar process to the US Joint Test Publication with their Joint Doctrine Notes. As in the US, these provide general top-down guidance for emerging doctrinal concepts such as PRTs, or counter-unmanned aerial vehicles (UAV) doctrine. These “Notes,” while not as yet part of a ratified body of doctrine, have provided both the operational and tactical levels with needed direction in a timely fashion.

The UK is also building up its joint lessons learned capability within the DCDC. This function is closely allied with the doctrine authors, and also has formed strong links with academe and service lessons learned, doctrine and concept centres within the UK and abroad.

**UK Summary.** The UK military realized a capability shortfall in the early 1990s in the joint doctrine concept development and joint doctrine production, and is well on the way to remedying this issue within the DCDC and supporting single service doctrine and concept centres. It was of note that the UK military at the strategic, operational and tactical levels has come to the conclusion that this is a vital function for its professional well-being. It has determined that a relatively centralized, critical mass of personnel is required to coherently undertake this function, and therefore sacrifices elsewhere were and are being made to ensure the viability of this function.

### Other Allied/Alliance Doctrine Production

**NATO.** NATO higher-level doctrine has always been an approved source that all NATO members contribute to and use in the formation of national military doctrine. The NATO doctrine hierarchy is echoed by all NATO members, with Allied Joint Publication – 1(B) (AJP–1(B)), *Allied Joint Doctrine*, being the authoritative capstone publication.<sup>12</sup> The foreword to this publication, promulgated by the NATO Defence Council, notes the following:

*“The primary objective of Allied Joint Publication 1(B) is to provide ‘capstone’ doctrine for the planning, execution and support of Allied joint operations.”*

AJP–1(B) also notes that NATO is currently lacking a complete series of subordinate “keystone” publications covering the functional warfare and support areas (AJPs 1-9). This is due principally to the need for all NATO members to rework these subordinate publications in light of the new NATO Strategic Concept, and revised NATO Operational Planning Process. The capstone publication was last revised in 2002 to reflect NATO’s evolving roles and activities.

What limited CF central resources that were available to DPDT J7 Doc were often dedicated to the review of these NATO publications and attendance at the requisite doctrine meetings in Brussels for the discussion and ratification processes necessary to all NATO activities. This is exclusive of the CF members from the three Environments and other support Branches who also attend a significant number of these meetings to represent Canada in their specialist fields.

<sup>11</sup> Interview CRS Evaluation Team/DCDC staff, 20 July 2006.

<sup>12</sup> NATO AJP–1(B), North Atlantic Treaty Organization, 1 December 2002.





Lacking a “steady state” capstone manual, and out-of-date subordinate keystone manuals, individual NATO nations, with the exception of Canada, have found it necessary to maintain their own hierarchy of doctrine publications, and update them when the latest NATO publications are updated.

Since the acceptance of the new NATO Operating Concept in 2001, a significant organizational shift has taken place across the NATO Command and Control framework. Subordinate NATO operational-level headquarters have been either closed down, or more commonly re-rolled to conform to the new paradigms. In the case of the doctrine development process, and principally due to the sensitivity of headquarters closures, separate Centres have been created to undertake the updating of joint doctrine concept development and production, lessons learned, and exercise planning and development. These Centres are all subordinate to NATO’s Allied Command Transformation, created in 2003 out of the former Supreme Allied Commander Atlantic headquarters in Norfolk, Virginia.

NATO has a Joint Warfare Centre (JWC) in Stavanger, Norway. It promotes and conducts NATO’s joint and multinational experimentation, analysis, and doctrine development processes to maximize transformational synergy and to improve NATO’s capabilities and interoperability. The JWC assists Allied Command Transformation in developmental work on new technologies, modeling and simulation.

Within NATO, many members have highly evolved doctrine development processes. For example, France has a Centre for Force Employment Doctrine that, amongst its many associated activities, publishes a professional wide-ranging doctrine magazine (logically called “Doctrine”) in both English and French. This publication covers doctrine discussions from the tactical through the grand strategic, dealing with doctrinal issues of both NATO and out-of-alliance countries.

**Australia.** Australia has a significant degree of experience in the publication and maintenance of joint doctrine. As a charter member of ABCA, Australia has contributed significantly to the group at the operational and tactical levels through the Australian Defence Force Warfare Centre (ADFWC). The ADFWC was formed by the amalgamation of the Australian Joint Warfare Establishment and Australian Joint Maritime Warfare Centre in 1990. In 1992, the Australian Defence Department identified the changing nature of peace support operations and acknowledged that there was a need to provide related doctrine and training.

The Joint Exercise Planning Staff relocated from the Australian Defence Force Headquarters in Canberra to become part of ADFWC in 1997. This saw the expansion of the ADFWC mission to include joint and combined exercising and subsequently the evaluation of selected operations and exercises.

The Australian Defence Force (ADF), like most Western nations’ militaries, has a joint doctrine hierarchy, topped with a capstone publication, *Foundations of Australian Military Doctrine*, ADDP-D, July 2005. This publication is signed by the Chief of the Defence Force, with personal direction from him where he states:



*“The ADF (Australian Defence Force), like all other quality defence forces, recognizes the importance of doctrine...Doctrine is the glue that builds internal cohesion within our Defence Force about the way we intend things to work...I expect all ADF commanders to be familiar with the content of this publication.”*

General P.J. Cosgrove, Australian CDF, in foreword to Capstone Series, *Foundations of Australian Military Doctrine*, ADDP-D, July 2005.

The ADF doctrine hierarchy (see [Annex E](#)) mirrors that of most of the US and UK doctrinal publications. The Australians also have published a *Defence Instruction* (Defence Instruction (General) Admin 20-1, 5 April 2005), signed by their Chief of the Defence Force and Defence Secretary, which provides further direction on the responsibilities and oversight for joint doctrine. This Instruction delineates responsibility and further reinforces the authoritative nature of their capstone publication. It provides for an oversight committee, the Joint Doctrine Steering Group, chaired by the Vice Chief of the Defence Force, to oversee all joint doctrine production and promulgation. This Instruction directs the following:

*“Australian Defence Doctrine Publication (ADDP) – D – Foundations of Australian Military Doctrine, is the capstone publication at the apex of the doctrine hierarchy. It is the authoritative source for which all Defence doctrine is derived. Where inconsistencies exist between joint and single-service doctrine, the joint doctrine has primacy. Notwithstanding this, single Service doctrine makes a valuable contribution to the development and improvement of joint publications.”*

Defence Instruction (General) Admin 20-1, 5 April 2005, paragraph 3.

**Alliance/Allied Summary.** All of Canada’s allied and alliance partners have successfully made the transition from the Cold War era with the creation of high-level joint doctrine centres, often encompassing the complete doctrine development functions, including concept development, lessons learned, experimentation, exercises, and validation activities. These centres have, with the active participation of the highest levels of senior military leadership in their respective countries, contributed significantly to advances in operational capabilities for these countries and their respective organizations.



## THE ROLE AND IMPORTANCE OF DOCTRINE

*“Doctrine is a dialogue between the past and the present for the benefit of the future.”*

Markus Mader, from *“In Pursuit of Conceptual Excellence: The Evolution of British Military-Strategic Doctrine in the Post-Cold War Era, 1989-2002,”* 2004.

**General.** Steady progress has recently been made in terms of changing CF command and control architecture with the stand-up of operationally focused mission commands and the evolution of force structure, including the ongoing development of a SCF. To support these initiatives and to ensure that the CF is capable of operating in a truly integrated, unified manner, a solid foundation of policies, principles, terminology and other key enablers is required.

Through their own transformation efforts, major allies and alliances have demonstrated their belief that a critical enabler for successful transformation is having an effective doctrinal base at the military-strategic, joint operational and tactical levels. The situation in the CF differs considerably. While the need for up-to-date tactical doctrine is generally recognized, and Environmental Chiefs of Staff (ECS) have assigned commensurate resources to the task through their warfare centres, there are few visible indications that the CF senior leadership views the need for clearly articulated military-strategic and joint doctrine as a priority requirement. This is in contradiction to recently published CDS-endorsed CF Leadership doctrine that states:

*“In support of internal-integration objectives, senior leaders communicate their strategic intent and provide authoritative guidance through a body of coherent policy and advanced doctrine.”<sup>13</sup>*

The strong linkages that other nations have forged between concept development, lessons learned and doctrine above the tactical level do not exist in Canada. The joint lessons learned process was not effective, much of the concept development and experimentation activity (e.g., at the CF Experimentation Centre (CFEC)) occurred without the benefit of higher-level direction, and operational training was challenged to keep pace with new developments. The new CF lessons learned framework and accompanying process changes should provide remedial action for a number of these problem areas.

While there were exceptions among mid-level staff officers, subject matter experts and academics regarding the importance of doctrine, during the conduct of this evaluation we were struck by the general lack of CF understanding of doctrine and the need to invest in it above the tactical level. During the conduct of this evaluation it became evident to the evaluation team that clear, coherent and communicated doctrine at all levels is of critical importance to the successful conduct of military operations. As succinctly summed up by a British doctrinalist<sup>14</sup> quoted earlier:

<sup>13</sup> Leadership in the Canadian Forces, Canadian Defence Academy, 2005, NDID A-PA-005-000/AP-003.

<sup>14</sup> Mader, Markus, In Pursuit of Conceptual Excellence: The Evolution of British Military-Strategic Doctrine in the Post-Cold War Era, 1989-2002, Studies in Contemporary History and Security Policy, Volume 13, 2004.



*“The main purpose of doctrine is to provide guidance for the conduct of military operations and to influence the process of force development. It is the glue of common understanding and common practice...It is about a military organization’s attitude of mind, its way of managing change and guiding institutional progress.”*

Markus Mader, 2004.

**Military-Strategic Doctrine.** At its highest level, military-strategic doctrine provides the conceptual bridge between national security strategy and military forces. In so doing, it:

- a. Ensures that senior military officials plan and conduct operations in line with overall security and defence policy objectives as well as with the relevant legal and moral constraints;
- b. Informs defence planners about the desired direction of future force structures and capabilities;
- c. Educates officers on how to think about the nature of conflict and the use of force;
- d. Advises political decision-makers on the possibilities and limitations of the use of military power;
- e. Informs allies and coalition partners about a nation’s way of warfare;
- f. Helps explain the role of armed forces to the wider public; and
- g. Contributes to deterrence by communicating to potential enemies the strong resolve, conceptual strength and effective capabilities underpinning a nation’s military power.

Military-strategic doctrine typically reflects national/political strategic objectives and legal aspects of engagement and interoperability, as well as the fundamental principles that relate to a nation’s way of war. It should not be confused with military-strategic *concepts*. In Canada, the current defence policy framework, including strategic guidance such as the White Paper and Government’s commitment to “The Responsibility to Protect”<sup>15</sup> theme (which underpins CF operations in Afghanistan), provide the necessary national strategic basis. Flowing from that, the CDS has developed and communicated his military-strategic concept to re-organize into operational-level headquarters that devolve significant authorities to Task Force Commanders.

<sup>15</sup> *The Responsibility to Protect*, Report of the International Commission on Intervention and State Sovereignty, December 2001. Canada has actively promoted the report’s principles through UN reform efforts, other high-level diplomatic channels, research initiatives and outreach activities.



*“This command structure will be shaped by the doctrine of mission command, with commanders at every level possessing a comprehensive understanding of their commander’s explicit and implicit intent and an overriding operational focus dedicated to the realization of this intent.”*

General R.J. Hillier, CDS, December 2005.

To support this conceptual framework, there is a need for a published CF military-strategic doctrine, clearly and concisely articulated in a capstone doctrine manual that in essence describes the Canadian “Way of War.” While recent roles and missions have by necessity spawned the need to update tactical-level doctrine, that activity is proceeding without the benefit of a firm military-strategic and joint operational doctrinal foundation. This is considered to be a serious deficiency that needs to be addressed.

*“Warfare at the military-strategic and operational levels is inherently joint.”*

*British Defence Doctrine, JWP 0-01, October 2001.*

**Joint Operational Doctrine.** The critical role of joint operational doctrine is to harmonize and optimize the capabilities of the individual Environments to achieve joint effects. If one accepts, as the UK does, that operational doctrine is the responsibility of central leaders and staff, then joint doctrine cannot be left solely to the force generators who develop tactical/Environmental doctrine.<sup>16</sup>

*“Without consideration of the operational level, it is easy to see the achievement of strategic success as merely the sum of tactical victories.”*

Lieutenant General Sir John Kiszely, December 2005.

As suggested, in the absence of coherent joint operational doctrine, the Environments will by necessity develop doctrine independently, and the vision of a truly integrated and unified expeditionary force may continue to be put at risk. In support of that view, the UK Strategic Defence Review, 1998, noted that: *“An accessible and widely understood joint doctrine is essential for the three Services to be capable of operating effectively.”* To facilitate the achievement of joint effects, joint doctrine is thus important for:

- Joint planning, particularly at the strategic and operational levels;
- Enhancing Service interoperability by identifying and addressing doctrinal inconsistencies between the individual Environments during peace and training; and
- Providing military commanders with institutional insight and a basis against which to analyze operational experiences and make needed changes in keeping with the doctrine development cycle.

<sup>16</sup> Lieutenant General Sir John Kiszely, *Thinking About the Operational Level*, RUSI Journal, Volume 150, Number 6, December 2005.



This CRS evaluation has confirmed what a number of concerned CF members at all levels have been saying for years—that CF joint doctrine has significant deficiencies, and that remedial action is required. As noted previously, the CF has never had an up-to-date hierarchy of joint publications since its inception. The situation has been exacerbated by a number of internal and external influences, including: downsizing in the 1990s; the resulting prioritization of scarce military resources; institutional neglect; over-emphasis on tactical, Environmental doctrine; little visible attention at senior levels; and a lack of emphasis on joint doctrine in CF officer professional education.

**Importance of the Doctrine Development Process.** Maintaining relevant, up-to-date joint doctrine requires commitment to a robust doctrine development process, as is the case with NATO and major allies. In the words of a staff officer at the NATO Joint Warfare Centre,<sup>17</sup> Joint Training Development Division:

*“Joint doctrine development is closely linked to exercises and the lessons learned process. Without an agreed joint doctrine, the command structure will simply be unable to lead and support current and future NATO operations.”*

Lieutenant Colonel G.H. Aarseth, December 2005.

Doctrine development is a dynamic process, and there are a number of factors or drivers that necessitate an ongoing review of doctrine and maintenance of its currency. At a 2002 conference of the British Military Doctrine Group<sup>18</sup>—a think-tank of military and academic doctrine experts—the following drivers were identified:

- History;
- The experience of combat (i.e., more recent history);
- Introduction of new technology;
- Politics and policy influences;
- Personality;
- Inter-service rivalry;
- The nature of the potential enemy; and
- “What worked well in the past.”

As is the case with Canada’s major allies, NATO’s joint doctrine development process includes the following activities:<sup>19</sup>

- Conduct doctrine deficiency assessments;
- Analyze relevant doctrines for deficiencies and voids;
- Prepare and issue project directives;

<sup>17</sup> Lt Col Gunnar H. Aarseth, NATO Joint Warfare Centre, *The Ultimate Transformational Tool*, *The Three Swords Magazine*, Volume 3, page 13, December 2005.

<sup>18</sup> British Military Doctrine Group conference proceedings, 1 February 2002, “What is Doctrine and Why Do We Need It?”

<sup>19</sup> Ole Eilertsen, NATO Joint Warfare Centre, *Allied Joint Doctrine Development*, *The Three Swords Magazine*, Volume 3, page 14, December 2005.

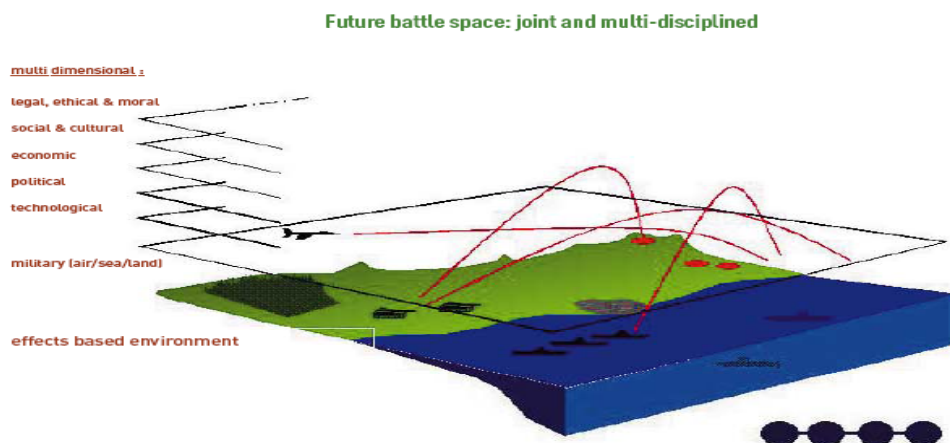


- Provide doctrinal support for the introduction of required capabilities and for the harmonization of doctrine development;
- Develop proposals for doctrine improvements, and draft new doctrine;
- Develop training objectives in concert with schools; and
- Provide support to publication custodians in the doctrine development process.

Although the CF doctrine development manual may describe these activities as fundamental to doctrine development, within the CF, assigned resources and the lack of governance have not supported the actual implementation of an effective joint doctrine development process.

**Who Needs to Understand Joint Doctrine?** The complexity of modern warfare and the future battle space, as depicted in Figure 6, underlines the importance for all officers to be familiar with joint doctrine in order to:

- a. Appreciate how their Environment in combination with others contributes to achieve a much broader defence effect;
- b. Be aware of potential strategic consequences of their actions; and
- c. Be aware that jointly the Environments have increased capability to mitigate risk and exploit opportunity to achieve multiplied effects.



**Figure 6. Future Battle Space: Joint and Multi-Disciplined.**

### Related Studies/Documents/Citations

A number of key doctrine-related studies/documents were reviewed. The following are brief summaries of the more important sources.

**Joint Doctrine Interoperability Project (The Lansdowne Study).** In response to direction to DCDS to develop a plan by July 2002 to improve the level of joint doctrine interoperability with Canada's principal allies, and to ensure that new doctrine is compatible with those allies, DPDT engaged the services of Lansdowne Technologies Inc. to conduct research, analyze data, develop options leading to recommendations, and formulate the outline of an Implementation Plan. This in-depth study was conducted in 2001, with a final report<sup>20</sup> delivered in September 2001. As noted earlier, findings and recommendations were briefed to the JCRB in 2002. The report concluded that the overall level of interoperability with our principal allies at the operational level was *"unsatisfactory, with significant potential to adversely affect combined operations."* Findings are summarized in Table 1. The inability to produce joint doctrine in a timely manner was cited as the major reason for the inadequate level of doctrinal interoperability. As well as recommending the establishment of a stand-alone section for doctrine at the strategic level, the study recommended 22 measures to enhance the joint doctrine development process, including designation of the JCRB as the senior authority for doctrine development, and assigning more resources. The 22 recommendations were never implemented, despite endorsement in 2002 by DCDS, the CFDB and the Capability Development Working Group.

Doctrine Element	Assessment Category	Substantiation
<b>Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR)</b>	Unsatisfactory, with major impact	Strengths in command and control and information operations in what has been written and put in practice in operations is undermined by some significant deficiencies in what has not been developed. This includes: intelligence, information management, surveillance, reconnaissance, and public affairs and how all are to be brought together. Overall C4ISR doctrine is needed to ensure that a blueprint for ensuring interoperability can be followed. Much work is needed here.
<b>Operational procedures, planning processes</b>	Unsatisfactory, with limited impact	Operational procedures are well written and clear. Execution has been inconsistent based on recent lessons learned. Fault lies not in what is written but in the process of ensuring doctrine is relevant and achievable. Deviations from established procedures need to be substantiated and recorded.
<b>Logistics</b>	Unsatisfactory, with limited impact	Reliance on chapters within the CF Operations Manual for health services support (HSS), engineering support, and most importantly personnel administrative support (PAdmS) needs to be challenged. Application of PAdmS doctrine/procedures to operations is often an occasion for setting policy. Efforts are under way to address HSS doctrine in view of Rx 2000 changes. Allied doctrine needs to be studied. Logistical interoperability will continue to increase in importance and needs well-established links with allies.
<b>Use of Force</b>	Satisfactory	Significant emphasis in past five years has paid dividends. CF among most mature NATO forces in terms of use of force issues. Will need continued effort to monitor allied development and ensuring validation through training is successful.

<sup>20</sup> Final Report, *Joint Doctrine Interoperability Project*, Lansdowne Technologies, DPDT, September 2001.





Doctrine Element	Assessment Category	Substantiation
<b>Force Protection (FP) (including NBC Defence)</b>	Unsatisfactory, with major impact	Significant progress has been made in completing CF NBCD doctrine and the product is recognized within NATO as very good. FP has not received adequate emphasis at the joint operational level. FP is taking on a greater importance. As the future battle space will be multi-dimensional, lethal and extended, protection of national infrastructure and deployed forces will ensure continued freedom of action in support of national goals and interests. <sup>21</sup> Tactical procedures are completed but these are disparate and have not been examined from a joint perspective. The Asymmetric Threat Study recommendations will recommend strongly the need for development of a single joint FP doctrine.
<b>Non-Combatant Evacuation Operations</b>	Unsatisfactory, with major impact	CF role has been in place for too long not to have doctrine written. Notwithstanding efforts to write NEO doctrine, achievement of joint capability within CF will need equal application by all ECSs to attain measure of interoperability with principal allies. Until doctrine is developed, disseminated, joint training progressed, and validation exercise conducted, this remains an area of concern.
<b>Civil Military Co- operation</b>	Unsatisfactory, with limited impact	Recent completion of doctrine manual is a positive step. Much work remains now to increase importance assigned to this field. Need to align better, CF operational experience with allied thinking, to elevate the competencies of the CF, and achieve better integration in coalition operations. More attention to CIMIC in higher intensity operational scenarios, outside the peace support operations domain, is needed.
<b>Special Operations (SO) (Forces)</b>	Unsatisfactory, with limited impact	No doctrine written at any levels. Procedures exist and training completed but only in very narrow SO field. Based on the limited role presently assigned to the CF, interoperability with NATO and US is not possible. Should its role be expanded, the CF will require substantial effort to consider demands of interoperability with allies.
<b>Overall</b>	Unsatisfactory, with major impact	The very significant deficiencies in the most important area for interoperability should be cause for concern and action. The elements established for C4ISR in Table 1 of section 2.3.8 are among the most dynamic in the US DoD and ultimately NATO, and require much greater attention. C4ISR will become the measure of interoperability and a segregator within NATO or any large coalition operation.

**Table 1. 2001 Joint Doctrine Interoperability Project—Major Findings Summary.**

<sup>21</sup> Military Assessment 2000.





**Strategic Integrated Operating Concept (SIOC).**<sup>22</sup> In 2005 the draft SIOC noted that “Over the last decade Canada’s numerous operational commitments and resultant high level of operational tempo has made it challenging for all three services to operate together in the integral and lasting way true jointness would call for.” The 2005 draft SIOC concluded that effective joint doctrine is a key ingredient to addressing this issue.

**Defence Plan (DP) On-Line.** Although the DP is a key CF planning reference, it misrepresents the current situation with respect to doctrine. Specifically, the DP has not kept pace with recent DND/CF organizational changes, and has yet to reassign joint doctrine development and related tasks from DCDS to others. The two primary doctrine tasks assigned to central authorities include:

- CI1-985 “Interoperability of Doctrine and Procedures Plan,” which seeks to improve interoperability of operational doctrine with those of our allies. It is shown in the DP On-Line as “Completed” in June 2004, based on the existence of an approved doctrine development guide and constitution of the CFDB. However, the CFDB is moribund and has not met since April 2005, and there is currently no planned replacement for it in the new organizational structure; and
- CI4-987-4 “Strategic Doctrine Manual” relates to development of the much-needed military-strategic CF capstone doctrine manual. Unfortunately this task has been on hold for at least a year and it remains unclear who will be responsible for updating and publishing this document, which remains in draft since 2003.

**Office of the Auditor General (OAG) April 2005 Report, Chapter 4—C4ISR.** The C4ISR initiative is a cornerstone of CF transformation strategy. The OAG report concluded that C4ISR systems have been developed without a joint C4ISR doctrine or concept of operations in place, and recommended putting a priority on addressing these deficiencies or risk developing non-compatible or duplicate systems. The OAG report noted that doctrine is “*essential as it sets out the fundamental principles for how military operations are to be planned, trade-offs addressed, and actions conducted.*” The DND response signalled agreement with the report’s findings, and has expressed a commitment to develop joint C4ISR doctrine by 2008.<sup>23</sup>

**Capability Outlook 2002-2012.** In July 2002, DND reviewed its capabilities, identified strategic trends, priorities and gaps, and published them as Capability Outlook 2002–2012. The report highlighted the recent increased emphasis on joint and combined operations, and on the need for interagency coordination. Further, it noted that “*compression of decision cycles suggests that increasing emphasis should be placed on doctrinal development and training at the strategic level. The lack of a solid theoretical foundation will have a significant impact on the CF’s ability to offer appropriate solutions and to field appropriate forces in (some) capability areas.*” To address concepts, doctrine and training deficiencies in the capability area of Command, the report advised that:

<sup>22</sup> Strategic Integrated Operating Concept (SIOC), Draft Version 03, VCDS/DGSP, 16 June 2005.

<sup>23</sup> VCDS memorandum 7090-34 (D Mil CM), 9 March 2007 refers.



*“The CF must invest more resources in the area of joint policy, concepts and doctrine development. The CF should have a comprehensive plan to address and properly resource strategic-operational joint policy, concepts and doctrine development.”*

As noted earlier, this has not been accomplished, and the demand for scarce military resources through CF Transformation has actually aggravated the situation.

**CDS Action Team 2 Report.**<sup>24</sup> To help develop a blueprint for CF Transformation in 2005, the CDS established a number of CDS action teams (CAT). One of CAT 2’s assigned tasks was the development of an Integrated Force Development System, including a Concept Development, Experimentation and Doctrine Unit. The CAT 2 report noted that “(CFD) will need an effective and integrated doctrine organization with the purpose of setting interoperability standards to which environmental and other technical doctrine staffs adhere.” In consideration of DND’s PRICIE<sup>25</sup> construct for assigning functional responsibilities, CAT 2 recommended the formation of a Canadian Forces Warfare Centre (CFWC) to provide operational focus and critical military concepts and experimentation support to facilitate the processes of capability-based planning. It was envisioned, at the time, that the CFWC would enable CFD to provide the necessary top-down direction for an effective system of integrated force development, would include concept development and experimentation (CD&E), lessons learned, doctrine development, and other related functions, and would incorporate the existing CFEC. Until recently, there was no progress in advancing this recommendation.

**Joint Task Force Atlantic Lessons Learned Report.**<sup>26</sup> As a pilot project in support of CF Transformation, a lessons learned project was undertaken in 2005 to capture, document and disseminate the experiences of integrating Joint Task Force Atlantic. Lessons identified included the need for CF doctrine and force planning scenarios to come from “the centre,” and for doctrine and terminology to be updated to reflect CDS direction and current realities affecting the conduct of operations. Given the lack of doctrine resources at the centre, the identified doctrine deficiencies have yet to be addressed.

**The Experience of Recent Operations.** Given the rapid pace of change in modern warfare and the critical importance of doctrine to military training, it is imperative that new roles or lessons learned during operations make their way into training and professional development in a timely manner. However, keeping up is posing a challenge for training establishments worldwide, as illustrated by this quote from a US Army trainer:<sup>27</sup>

*“We used to say we needed two years to change the curriculum. Now, if something happens in-theatre (Iraq), we should have it in the schoolroom two to three days later.”*

Steven Davis, June 2006.

<sup>24</sup> CDS Action Team 2 Report, *Canadian Forces Transformation: Concepts for Integrated Force Development, Integrated Force Generation and Coalition Advocacy*, 30 June 2005.

<sup>25</sup> PRICIE = Personnel; Research and Development; Infrastructure and Organization; Concepts, Doctrine and Collective Training; Information Management; Equipment, Supplies and Services.

<sup>26</sup> Joint Task Force Atlantic (JTFA) Lessons Learned Report, Director General Strategic Change, undated.

<sup>27</sup> Steven Davis, Director of the Digital Leadership Development Center, US Army Command and General Staff College, Fort Leavenworth, as quoted in an article by Mark Sappenfield, *How Iraq, Afghanistan Have Changed War 101*, *The Christian Science Monitor* on-line at [www.csmonitor.com](http://www.csmonitor.com), 28 June 2006.



Within Canada, relatively recent CF 3D roles such as COIN operations in urban areas and PRT operations require accompanying joint doctrine. However, with the evolution of roles and responsibilities, combined with a lack of resources as noted earlier, the needed joint doctrine is not being developed. To illustrate that point, a recent media special report on CF operations in Afghanistan<sup>28</sup> noted that Canadian troops were conducting their own extracurricular research on COIN operations after questioning the adequacy of the training they receive. Fortunately, more realistic training is now taking shape at the Canadian Manoeuvre Training Centre in Wainwright, although the training is still being conducted without the benefit of CF joint COIN or PRT doctrine.

**Some CF Successes.** On the positive side, a number of subject matter experts have produced and continue to maintain functional joint doctrine (e.g., NBCD) either by themselves or using contracted resources. Also, some new CF capabilities have benefited from preparation of a comprehensive campaign plan or similar roadmap that reflects the need for joint doctrine. Two recent examples are UAVs and the SCF, where joint doctrine development is facilitated through having dedicated Project Management Offices. Although the procurement of UAVs to meet an urgent requirement in Afghanistan preceded the development of joint doctrine, the draft UAV campaign plan (awaiting formal approval as of March 2007) includes roles and responsibilities for doctrine.

As another example, Version 3 of the Standing Contingency Task Force (SCTF) (now SCF) Concept of Operations states that *“The SCTF will require integrated doctrine including amphibious operations to permit expeditionary operations at the tactical level in a littoral environment. Such doctrine includes key general areas such as operational planning processes, C4ISR, information operations, and sustainment...It is anticipated that rapid doctrine development will be achieved by utilizing extant NATO and other selective doctrine from allies that fit Canadian requirements.”*<sup>29</sup>

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<sup>28</sup> Mitch Potter, *War: Canadian-style*, as published in the *Toronto Star*, 12 March 2006.

<sup>29</sup> Standing Contingency Task Force, Draft Concept of Operations, Version 3, Undated.



## FINDINGS AND RECOMMENDATIONS

### Current State of CF Joint Doctrine Development

Clearly articulated CF doctrine above the tactical level is of recognized importance by Canada's major allies and alliances for jointness and interoperability, and a number of major studies and documents in recent years have detailed deficiencies in particular with CF joint doctrine and its development. Regrettably, remedial action has not been taken to date, and serious deficiencies continue to exist:

- **There is a lack of published CF military-strategic doctrine to bridge national strategy with the joint operational and tactical levels.** Although military-strategic concepts (e.g., 3D, three-block war) to shape the CF of the future have been clearly articulated and communicated by the CDS, an important missing element is CF military-strategic doctrine, published in a capstone doctrine manual. This manual would lay out important principles, tenets and planning considerations, and in essence describe the Canadian "Way of War." Currently, joint and tactical doctrine development lacks over-arching strategic doctrine to ensure validity, coherence and compatibility.
- **Joint operational doctrine, which in turn represents the vital bridge between military-strategic and Environmental operational/tactical doctrine, is severely deficient and in need of attention.** As a result, in the absence of higher-level direction or guidance, the individual Environments have been left to unilaterally develop doctrine for a number of new capabilities, thereby potentially putting jointness and interoperability at risk.
- **The lack of a rigorous joint doctrine development process and a failure to follow the published doctrine development process have led to a breakdown in the important synergy between doctrine, CD&E, lessons learned and training, and resulted in an inability of training at all levels to keep pace with emerging doctrinal developments.** There is a need for the CF to take a more integrated approach to force development, including an integrated framework for concept development, experimentation and doctrine evolution (e.g., through a joint warfare/development centre).
- **The CF joint doctrine development process lacks agility and does not have a mechanism to get emerging doctrine (e.g., PRT doctrine) quickly into the hands of those who need it.** By contrast, allies have recognized the need and developed the necessary tools (e.g., the UK's Doctrinal Note).
- **There is a general lack of understanding and appreciation within the CF for the important role of joint operational doctrine.** Although doctrine has been characterized as the purview of generals, CF joint doctrine development is primarily driven from bottom up rather than top down. This situation has led to an inadequate governance structure and inadequate assigned resources (i.e., few established positions, vacancies and no critical mass outside the Environmental warfare centres). This is in contrast to NATO and major allies.

- **There is a lack of training and professional education in joint doctrine and doctrine development (including on staff courses such as those offered at the Command and Staff College).** This situation reflects the low profile accorded CF joint doctrine, and is a troubling trend at a time when other nations have adopted a renewed interest in doctrine within the military and in military academe. In addition, having an effective doctrine development process requires that those writing doctrine possess the training, expertise and abilities, which has not always been evident within the CF.

### The Consequences of not Taking Remedial Action

In his seminal article, “Thinking about the Operational Level,”<sup>30</sup> Lieutenant General Sir John Kiszely notes the importance of the joint operational level, including the consequences of the previous absence of operational-level doctrine in the UK military:

*“The resulting doctrinal focus on the tactical level led...to a focus on the conduct of battles. It contributed to a single service rather than joint service focus...And it led to a tendency for senior officers to be thinking small when they should have been thinking big.”*

Lieutenant General Sir John Kiszely, December 2005.

As the CF increasingly seeks to play an active leadership role in allied or coalition operations it will be important for the CF to think “big” rather than “small.” Military-strategic doctrine and joint operational doctrine are key enablers for joint and multinational interoperability and for the achievement of integrated effects. If the CF does not prepare a military strategic capstone doctrine manual and persists in not investing adequately in joint doctrine development and maintenance, there are potential consequences, including the following:

- a. **The CF joint doctrine development process will not meet the needs of CF operational units.** Doctrine for new roles, missions and concepts (e.g., effects-based operations, three-block war, PRT, COIN in urban areas) will not be developed or communicated in a timely manner, resulting in outdated, sub-optimal training and potentially putting mission success at risk. In such an environment, some CF members will perform personal tactical-level research to address perceived doctrinal gaps, thereby continuing to drive the system from the bottom-up versus the desired top-down approach.
- b. **The individual Environments will develop tactical doctrine in isolation at their warfare centres that may not reflect CF joint considerations.** Without the guidance afforded by joint doctrine, and without a suitable governance structure for discussion and approval of joint doctrine, it will be increasingly difficult to reflect a national perspective.

<sup>30</sup> Lieutenant General Sir John Kiszely, Director of the Defence Academy of the United Kingdom, *Thinking About the Operational Level*, RUSI Journal, Volume 150, Number 6, December 2005.



- c. **The link between operations, lessons learned, CD&E, doctrine, training and validation will be broken, thereby losing the benefit of synergy among those functions.** The ability of training establishments to keep pace with needed curriculum changes will be challenged. In addition, related central organizations such as CFEC will not be optimally utilized and resources risk being wasted.
- d. **Capital equipment procurement decisions will lack an appropriate doctrinal basis.** An *ad hoc* reliance on “management by unforecasted operational requirements (UOR)” during operations will perpetuate the problem and pose an increasing challenge to true integration and interoperability, potentially wasting CF resources.
- e. **With few resources devoted to joint doctrine development, CF joint doctrine will increasingly lag that of NATO and major allies.** As a result, it will become increasingly difficult to credibly represent Canada on NATO and allied doctrine panels and working groups. This also applies to the task of reviewing, analyzing and ratifying NATO and allied doctrine for CF applicability.
- f. **The level of knowledge and appreciation for the role of joint doctrine by CF officers will continue to erode, exacerbating the downward trend as they rise in rank.** Senior CF leaders in the future will be less inclined to invest in doctrine development above the tactical level.

## Recommendations

To help achieve the intended end-state of CF Transformation, which will be a “*strategically relevant, operationally responsive and tactically decisive organization, supported by an effective, efficient and adaptable defence institution, and capable of operating within a dynamic and evolving security spectrum,*” the following recommendations are offered:

1. **Introduce a military-strategic capstone doctrine manual for the CF on a priority basis.** (OPI: VCDS)
2. **Designate a CF doctrine authority to provide national direction and guidance.** (OPI: VCDS)
3. **Introduce an executive doctrine steering/oversight body to ensure senior-level involvement in doctrine development.** (OPI: VCDS)
4. **Review joint doctrine staff roles, responsibilities and assigned resources at the strategic and operational levels.** Review for coherence, clarifying roles and responsibilities for the production and maintenance of joint doctrine. This would include rationalizing responsibilities for strategic and joint operational levels, including considering the divestiture of coordination responsibilities for joint tactical-level doctrine, SOPs and TTPs to Canada COM, CEFCOM, CANOSCOM and CANSOFCOM. (OPI: VCDS; OCI: DOS SJS, Comds Canada COM, CEFCOM, CANOSCOM, CANSOFCOM)





5. **Create a CF centre that will coordinate all doctrine cycle processes to include ensuring the coherence of doctrine production with the respective Environmental doctrine/warfare centres.** This will assist the CF doctrine authority to execute the joint doctrine mandate and introduce an organizational focal point responsible for reviewing existing doctrine; identifying misalignments to be corrected; reviewing NATO and allied doctrine for applicability; developing, updating and publishing joint doctrine; and coordinating the efforts of subject matter experts in that regard. (OPI: VCDS; OCI: DOS SJS, CMS, CLS, CAS)
6. **Prioritize and address identified gaps in CF joint operational doctrine (e.g., COIN, PRT) in order to re-vitalize the joint doctrine development process.** This would include the introduction of a mechanism to place emerging doctrine into the hands of those who need it in a timely manner (e.g., doctrinal notes). (OPI: VCDS; OCI: CMS, CLS, CAS and Comds Canada COM, CEFCOM, CANOSCOM, CANSOFCOM)
7. **Ensure that doctrine informs capability development and force development.** This will contribute to the effectiveness of procurement decisions, including UORs for new equipment identified during operations, by requiring that they reflect extant CF joint operational doctrine. In cases where such doctrine does not exist in advance, ensure that it is developed in conjunction with SOR preparation. (OPI: VCDS; OCI: ADM(Mat))
8. **Raise awareness within the CF officer corps of the importance of military-strategic and joint operational doctrine.** Develop a doctrine culture within the CF officer corps at all levels by raising the profile of joint doctrine at staff colleges and other advanced courses. In that regard, review CF professional military education and career paths with respect to CF strategic and joint doctrine and realign as appropriate. (OPI: VCDS; OCI: CMP)



## ANNEX A—MANAGEMENT ACTION PLAN

Ser	CRS Recommendation	OPI	Management Action	Target Date
1.	Introduce a military-strategic capstone doctrine manual for the CF on a priority basis.	VCDS	OPI agreement. A military-strategic capstone document reflecting post-Transformation CF organization will be developed and promulgated as a matter of priority.	Initial draft to be circulated by Sep 07 to ECS, L1s and operational HQs. Publication tentatively scheduled for Nov 07.
2.	Designate a CF doctrine authority to provide national direction and guidance.	VCDS	OPI agreement. VCDS has agreed to establish a CFWC by 13 Jul 07 with a planned initial operational capability (IOC) of 13 Jul 09. CFD will be designated the CF Warfare Developmental Authority (CFWDA), which will include responsibilities as the CF doctrine authority. The CFWDA will be responsible for all force development activities, including those that will be part of the CFWC mandate—specifically CF Doctrine, Integrated Concept Development, Joint Experimentation, Pan-CF Lessons Learned and Integrated Training at the operational level.	1 Apr 07
3.	Introduce an executive doctrine steering/oversight body to ensure senior-level involvement in doctrine development.	VCDS	A governance mechanism needs to be put in place to ensure that CF doctrine is published in a timely manner. This governance mechanism will be incorporated into the overall CFWC governance methodology.	Fall 2007
4.	Review joint doctrine staff roles, responsibilities and assigned resources at the strategic and operational levels.	OPI: VCDS OCI: DOS SJS, Comds Canada COM, CEFCOM, CANOSCOM, CANSOFCOM	OPI agreement. This is ongoing and is being addressed by the standup of the CFWC on 13 Jul 07. The CFWC will include an initial complement of 10 personnel for the CFWC Doctrine section, which will be incrementally increased to CFWC IOC (13 Jul 09).	13 Jul 07
5.	Create a CF centre that will coordinate all doctrine cycle processes to include ensuring the coherence of doctrine production with the respective Environmental doctrine/warfare centres.	OPI : VCDS OCI: DOS SJS, CMS, CLS, CAS	OPI agreement. The CFWC will be established to include a CF doctrine section with the mandate to coordinate and ensure coherence of CF doctrine production. An administrative instruction, endorsed by the CFWDA, will be published with guidance for the production of all CF doctrine.	Initial draft to be circulated by Sep 07 to ECSs, L1s and operational HQs. Publication tentatively scheduled for Nov 07.

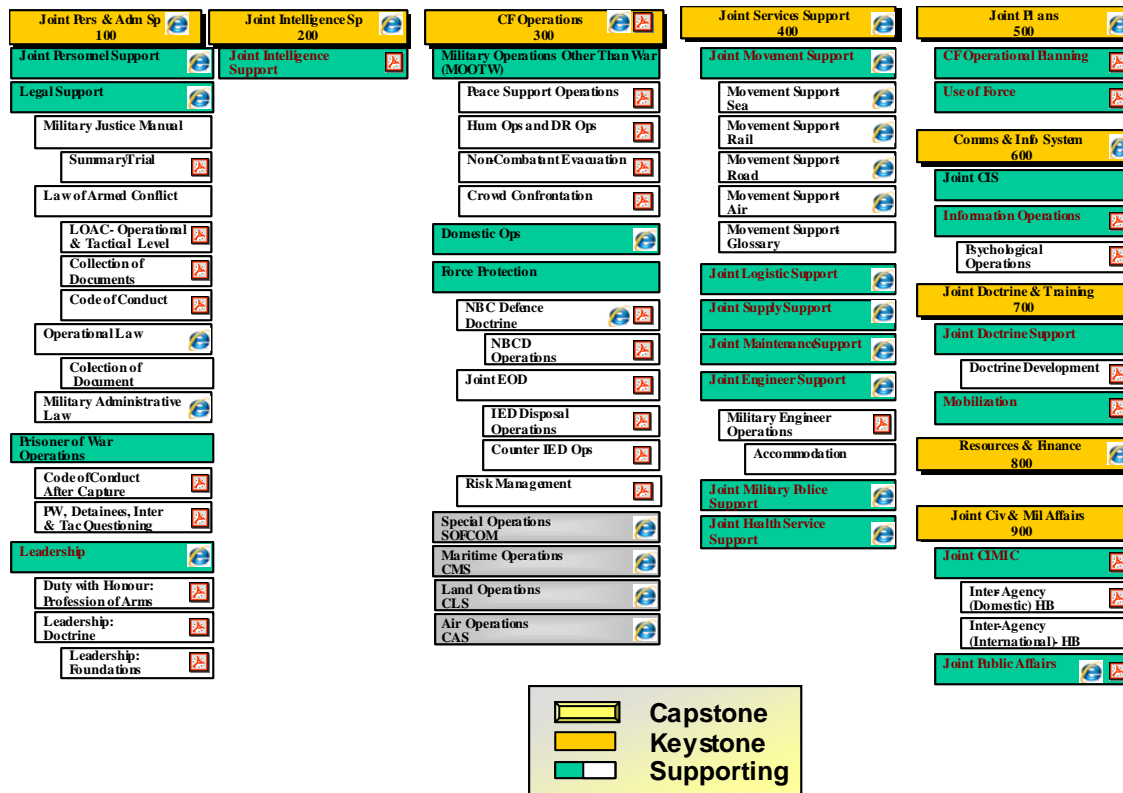


ANNEX A

Ser	CRS Recommendation	OPI	Management Action	Target Date
6.	Prioritize and address identified gaps in CF joint operational doctrine (e.g., COIN, PRT) in order to re-vitalize the joint doctrine development process.	OPI: VCDS OCI: CMS, CLS, CAS and Comds Canada COM, CEFCOM, CANOSCOM, CANSOFCOM	OPI agreement. A hierarchy of CF joint operational doctrine has been developed to identify gaps and assign OPIs for the development of CF joint doctrine publications. This hierarchy has not yet been agreed to and will be endorsed by the CFWDA as part of the overall CF governance process for CF doctrine.	Initial draft to be circulated by Sep 07 to ECSs, L1s and operational HQs. Publication tentatively scheduled (and OPIs designated) by early 2008.
7.	Ensure that doctrine informs capability development and force development.	OPI: VCDS OCI: ADM(Mat)	OPI agreement. The CFWC Master Implementation Plan (MIP) will address the link between doctrine and capability development/force development. In sum, the CFWC will directly support CF Integrated Force Development (IFD), which means that the new CFWC is an integral part of the IFD process and decision cycle. In collaboration with DFSA and informed by operational-level pan-CF lessons learned as applicable, the CFWC will focus primarily on supporting the development of pan-CF concepts and producing related actionable CF doctrine at the operational level. Actionable doctrine is doctrine that is focused, relevant, trainable, teachable and rapidly useable. Actionable CF doctrine is implemented through the provision of integrated training leading to new or improved capabilities and enhanced CF operations.	MIP to be agreed/ published by early Jun 07. Addressed by CFWC standup 13 Jul 07.
8.	Raise awareness within the CF officer corps of the importance of military-strategic and joint operational doctrine.	OPI : VCDS OCI: CMP	OPI agreement. The CFWC doctrine section will assist the CFWC training section in raising awareness/informing CF learning institutions of the completed military-strategic and joint operational publications that are produced under the auspices of the CFWC doctrine section.	Action plan to be endorsed by CFWDA by fall 2007. Briefings and staff assist visits to be carried out late fall 2007/early 2008.

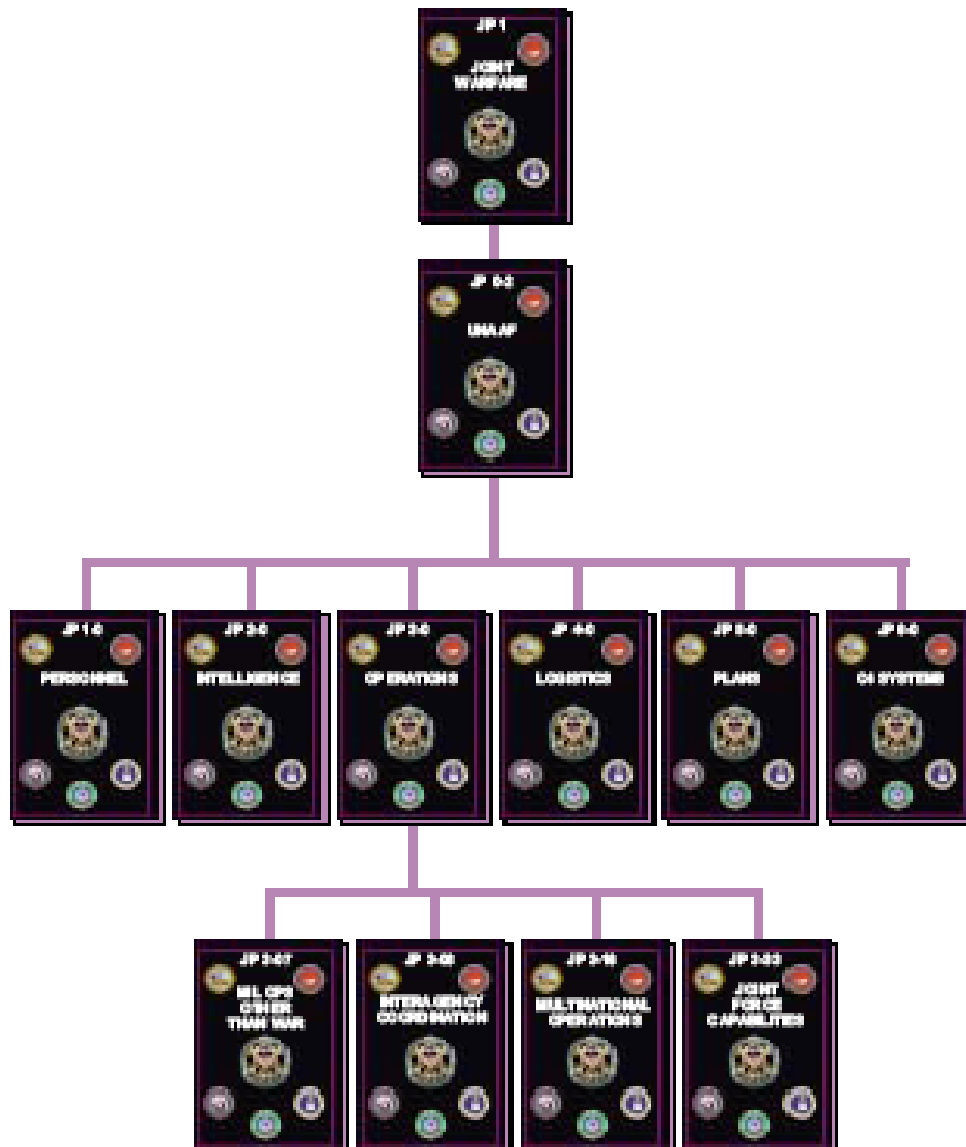


## ANNEX B—CF DOCTRINE HIERARCHY AS OF NOVEMBER 2006

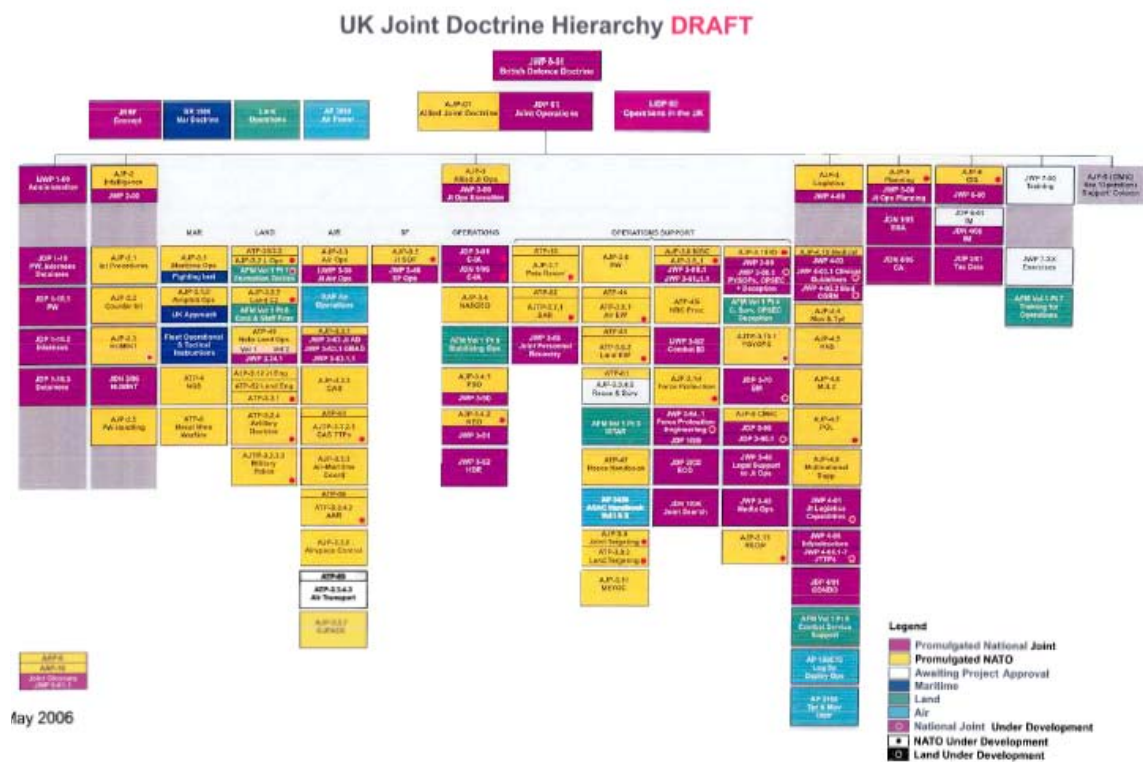


## ANNEX C—UNITED STATES JOINT DOCTRINE HIERARCHY 2006

*Capstone, **Keystone** and Key Doctrine Executive Summaries*



## ANNEX D—UK JOINT DOCTRINE HIERARCHY AS OF MAY 2006



## ANNEX E—AUSTRALIAN DEFENCE FORCE DOCTRINE HIERARCHY 2006

Australian Defence Force Publications - ADFPs  
(Procedural Level Doctrine)

