

Canadian Armed Forces Operations from 1990-2015

Update 2015 to the FIVE-W Database

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Abstract

This Contract Report documents the development of a database of Canadian Armed Forces (CAF) operations, covering the period of 1 January 1990 to 31 December 2015 based on the FIVE-W Database [1] and its 2011 Supplemental Update [2]. The new FIVE-W Database 2015 (5W DB 2015) regenerates the original data in a relational database using Microsoft Access as its Database Management System (DBMS) software replacing the static Microsoft Word tables of the original. The 2015 version completes the data collected in the Supplemental Update [2] and adds the latest domestic, continental and expeditionary operations. The FIVE-W Database 2015 is presented as a complete set of unclassified CAF operations conducted between 1990 and 2015. Additionally, the names of operations conducted since 1945 and the names of other major activities labelled as “operations” are also captured as a means of creating a master list of operation nicknames.

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Executive Summary

International Canadian Forces Operations from 1990-2015: FIVE-W Database 2015

Mike Stevens; DRDC CORA CR 2015-6133; December 2015.

Introduction: The “FIVE-W Database” was originally created as a record of Canadian Armed Forces (CAF) operations from 1 January 1990 to 31 December 2003. The intent was to capture sufficient information about the “who-what-where-when-why” of each operation to allow defence scientists to conduct utilization rate analyses for various services and major equipment fleets within the CAF [1]. The focus was on national and international operations that received formal names from the Deputy Chief of Defence Staff (DCDS). Activities that were considered to be routine force employment, such as sovereignty missions, support to other government departments (e.g., fisheries patrols or drug interdiction operations), and assigned national tasks such as search and rescue, were excluded. Classified missions, standing force commitments and major exercises were also excluded. In 2011, an update to the FIVE-W Database was undertaken to add partial records for expeditionary operations up to 31 December 2011 [2]. Finally, in 2015, a second revision was commissioned to fully update the FIVE-W Database across the full spectrum of domestic, continental and expeditionary operations [3].

Results: The 2004 FIVE-W database and its 2011 Supplement each consisted of just over 100 data “tables” contained in two separate Microsoft Word documents. By the strictest definition these static documents may be considered a “database”; however, after converting them into a single relational database managed with Database Management System (DBMS) software (Microsoft Access), the utility of the FIVE-W data is exponentially increased. In the new FIVE-W Database 2015 (5W DB 2015) [4], information can be arranged in a wide variety of formats to suit the researcher. This ability to categorize and filter information also allows the database to contain records that fall on the edge or even outside the intended FIVE-W scope thus permitting a more complete list of operations. Establishing categories to organize operations became an important step in this revision. The original taxonomy was updated and retained as a secondary categorization method. A new primary categorization was developed using the Program Alignment Architecture to group operations under the Strategic Outcomes that support the Canada First Defence Strategy. In adding the domestic and previously unidentified operations, the number of those that fall within scope, now 387, almost doubled from the previous work. Another 114 operation names are recorded that are outside the scope to bring the total number of operations identified in the 5W DB 2015 to 501.

Significance: The 5W DB 2015 captures the essence of the “who-what-where-when-why” of CAF operations and illustrates how aspects of its force structure have been used since 1990. It provides operational research defence scientists with a flexible tool with which to analyse past operations and to predict future demand for the CAF.

Future Considerations: The 5W DB 2015 is a fixed snapshot and, as time passes, there is a requirement to refresh the data for ongoing or recurring operations as well as capturing any new ones. RCAF flying hours in support of operations was a notable data area that was not fully discovered during the research for the 2015 update.

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Acknowledgements

As this project is an update, the work done by Mr. Dave W. Mason is credited for providing the research into operations contained within the original Five-W database from 1990 to 2003 and its supporting documents [1]. Also, the 2012 update by Mr. Kurt Grant is acknowledged for identifying the international operations that occurred between 2003 and 2011 [2]. The archives and extensive support provided by the War Diaries section of the Directorate of History and Heritage (DHH) was greatly appreciated.

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1 FIVE-W Database Update

1.1 Background

The original “FIVE-W Database” was created as a record of Canadian Armed Forces (CAF) operations from 1 January 1990 to 31 December 2003. The intent was to capture sufficient information about the “who-what-where-when-why” of each operation to allow defence scientists to conduct utilization rate analyses for various services and major equipment fleets within the CAF [1].

In 2011, a request from the Director of Capability Integration (DCI) to examine strategically significant trends and findings resulting from an analysis of joint Force Development Scenarios (FDS) was received by Defence Research and Development Canada – Centre for Operational Research and Analysis (DRDC CORA). In order to accomplish this task, a partial update of the information contained in the FIVE-W Database was conducted to include basic information for expeditionary operations to 31 December 2011 [2].

A second update was commissioned in 2015 to fully update the database across the full spectrum of domestic, continental and expeditionary operations [3]. This update would convert the 2004 FIVE-W Database and its 2011 Supplement from a collection of Microsoft Word data tables into a single relational database managed by Database Management System (DBMS) software (Microsoft Access). This new format allows a researcher to manipulate the data in a much wider variety of ways and increased the utility of the FIVE-W data exponentially.

1.2 Aim

The purpose of this contractor report is to describe the FIVE-W Database 2015 (5W DB 2015). This latest version has been converted into a relational database and updated to include CAF domestic, continental and expeditionary operations from 1 January 1990 to 31 December 2015.¹

1.3 Scope

The scope of the 5W DB 2015 was developed directly from the 2004 original with only minor refinement. The following criteria were used to determine which operations were to be included in the database:

1. Dates. 1 January 1990 was selected as the start date as it generally defines the end of the Cold War (the Berlin Wall fell on 9 November 1989). This date “marked a refocusing of the defence perspectives of the western powers away from a preoccupation with conventional warfare against the Soviet Union to a concern for more global security issues”. [1]

¹ Any operations that cross over the start/end dates for overall data collection may contain only partial information.

2. Operation Nicknames. Formally or informally-named domestic, continental or expeditionary operations reported to the Canadian public as a CAF operation², and where personnel, significant resources, and/or equipment were contributed towards the commitment.
3. Lower profile activities categorized as “routine” force employment, such as sovereignty missions, support to other government departments (e.g., fisheries patrols or drug interdiction operations), and assigned national roles such as Search and Rescue, were excluded from the database. Classified missions were also excluded³. As a rule, “routine” activities are not normally given operations names; thus, if a force employment activity generated sufficient interest to be assigned a name, it was included in the database.
4. Major exercises and standing force commitments, such as naval vessels to the Standing NATO Force Atlantic (SNFL) / Standing NATO Maritime Group 1 (SNMG1), were also excluded. However, when NATO deployed standing forces in a real-world operation (i.e. the SNFL fleet to Op SHARP GUARD) [1], these operations were included in the FIVE-W. In recent years, Canada’s contributions to NATO often occur as named operations and these are tracked in the database.

1.4 Master List of Operation Names

Current doctrine reports that a master list of all operations and plans is maintained by the Strategic Joint Staff [5]; however, in practice this is limited to a list of nicknames that may be used to name future operations. The Canadian Joint Operations Command (CJOC) website provides a listing of current and recently completed operations [6]. DHH maintains a list of “international” operations since 1945 focusing on their historical context [7][8]. The FIVE-W provides a perfect opportunity to establish a complete list of operation nicknames while maintaining its core objective of focusing on those after 1990.

To achieve this master list, the 5W DB 2015 contains two broad types of records:

1. Core Database Records. The majority of records in the FIVE-W describe operations that meet the defined scope; and
2. Tombstone Records. The second type of record describes operations that are clearly outside the defined scope. Keeping track of these provides a way of managing the large

² In the previous iterations of the FIVE-W, the stated scope was limited to operations that had been given a formal operation name issued by the DCDS. It was necessary to reconsider this criterion since there are a number of examples of significant operations that did not have a classic Op nicknames assigned, were unnamed on account of their seemingly minor nature, or were named by an authority other than the higher headquarters (DCDS, CEF/COM/CANADA COM, and CJOC). The solution was that any activity being reported to the Canadian public as a CAF operation was considered to have met this requirement of having a formal operation name. Those operations without formally designated nicknames were assigned an “informal” name and tagged as an “Informal Operation”.

³ Operations are typically classified in the beginning and are often declassified to some degree at some point after their conclusion. Some operations in the database are missing data points that have not yet been declassified. Operations with little or no releasable data but that have been identified in the unclassified domain are included as Tombstone records.

number of operation names in recent use. These 114 records contain only basic tombstone information and include,

- a. Formally-named operations that commenced after 1945 and concluded prior to 1 Jan 1990. These allow the Five-W names to be reconciled against the DHH list [8],
- b. Classified Operations where the name has appeared in UNCLAS sources,
- c. Subordinate Operations that occur under the auspices of larger operations. These were largely Army operations within Op APOLLO and Op ATHENA that gained sufficient attention to appear in the news media,
- d. Force Generation and recruiting “operations”, and
- e. Leadership and Administrative “operations”.

1.5 New Primary Taxonomy

Taxonomy is the practice of classification of things or concepts. The original FIVE-W developed a taxonomy based on the mission or tasks that the CAF was historically performing in its deployed operations and were loosely derived from United Nations doctrine. As recommended in the 2012 Contract Report [2], the taxonomy was revisited for applicability with the intent of linking it to existing doctrine⁴. Establishing a doctrinal linkage proved to be unsuccessful because the original structure and numbering system for the mission-tasks were created specifically for this database. The taxonomy was developed from the typical missions and tasks that armed forces were being assigned in these operations. The solution was to follow the lead of original and simply restructure and renumber the mission-tasks to suit the operations in the database. This updated taxonomy is shown as *Table 1: Revised Mission-Task based Taxonomy*.

⁴ In the 2012 CR, the contractor identified operations that could not be readily classified using the existing taxonomy and recommended the list be updated. In the 2004 database, the mission-tasks have a taxon (numbering system) that contained gaps, were inconsistent with the groupings, and contained a few numbering errors. The taxonomy gave the appearance of a United Nations “Task List”

Table 1: Revised Mission-Task based Taxonomy

1.0 to 8.0 EXPEDITIONARY OPERATIONS	
1.0 PEACE KEEPING	5.0-8.0 COMBAT-CENTRIC
1.01 Monitor/verify cease-fire agreements	5.01 Support to Alliance/UN/coalition ops
1.02 Monitor political/humanitarian situation	5.02 Enforce international sanctions
1.03 Maintain stable and secure environment	5.03 Conduct a Non-Combatant Evacuation (NEO)
1.04 Supervise DDR of the combatants	6.01 Conduct Full-Spectrum Land Ops
1.05 Monitor zones of separations/safe areas	6.02 Provide emergency extraction force
1.06 Monitor repatriation of refugees	6.03 Secure a cease-fire
1.07 Provide security to UN/NGO personnel	6.04 Establish stable and secure environment
1.08 Preventative border monitoring	6.05 Create demilitarized zones/safe areas
1.09 Verification of human rights	6.06 Protect displaced persons
1.10 Conduct weapons inspections	6.07 Enforce DDR of combatants
2.0 PEACE BUILDING	6.08 Supervise exchange of POWs
2.01 Observe/verify elections	6.09 Conduct Mine Clearance/EOD Ops
2.02 Assist development of a functional gov't	7.01 Conduct Offensive Counter-Air (OCA) Ops
2.03 Professionalize armed forces and police	7.02 Conduct Combat Air Patrols (CAP)
2.04 Rehabilitate infrastructure	7.03 Conduct Strike Ops
3.0 INT'L HUMANITARIAN RELIEF	7.04 Air Interdiction Ops (AIO)
3.01 Provide humanitarian aid	7.05 Provide search & rescue capability
3.02 Provide disaster relief	7.06 Enforce no-fly zone
3.03 Provide Refuge for displaced persons	8.01 Conduct Full-Spectrum Maritime Ops
4.0 MILITARY DIPLOMACY	8.02 Conduct Maritime Escort Ops
4.01 Confidence & Security-Building Measures	8.03 Conduct Maritime Interdiction Ops (MIO)
4.02 Conduct Non-Proliferation Activities	8.04 Conduct Maritime Security Ops (MSO)
9.0 DOMESTIC and CONTINENTAL OPERATIONS	
9.01 Assert Sovereignty	9.05 Support Major Canadian Event
9.02 Defend North America	9.06 Preserve History and Heritage
9.03 Ensure Safety and Security of Canadians	9.07 Promote and Support Canadian Forces
9.04 Assist Other Government Departments or Agencies (OGDA)	9.08 Assist a Major Air Disaster (MAJAID)

During the research to update the original taxonomy it was noted that DND's Program Alignment Architecture (PAA) [9] provides a modern classification system that could sort operations by the Strategic Outcomes that are linked to the Canada First Defence Strategy. Each Strategic Outcome in the "operations section" of the architecture (PAA 1 and 2) lists "operations by type" and these were used to generate a new primary taxonomy for the FIVE-W. This taxonomy contains 17 "numbered" Strategic Outcomes that are assigned to operations within the FIVE-W scope and five "unnumbered" classifications that are used for tombstone records.

Strategic Outcome based taxonomy was adopted as the primary classification system with the mission-task taxonomy being retained as a secondary, more-specific classification system. The following table contains the Strategic Outcome based Taxonomy:

Table 2: Strategic Outcome based Taxonomy

STRATEGIC OUTCOME
1.1.1 Combat Operations to Defend Canada
1.1.2 Defence, Security, and Sovereignty Operations
1.1.3 NORAD initiated Operations
1.1.4 Continental Operations
1.2.1 International Operations over Extended Period
1.2.2 International Crisis & Surge Response
1.2.3 NATO Operations using Standing Forces
1.3.4 Military Diplomacy and Global Engagement
2.1.1 Domestic/Continental Humanitarian Assistance & Disaster Response
2.1.2 International Humanitarian Assistance & Disaster Relief
2.1.3 Non-Combatant Evacuation Operations (NEO)
2.2.1 Counter Terrorism
2.2.2 Assistance to Major Canadian Events
2.2.4 Major SAR Event
2.2.5 Assistance to Other Government Departments & Agencies (OGDA)
2.2.6 Safety & Security
2.3.1 History & Heritage
TOMBSTONE RECORDS
Unexecuted and Cancelled Operations (TOMBSTONE DATA ONLY)
Outside 5W DB Scope (TOMBSTONE DATA ONLY)
Subordinate Operations (TOMBSTONE DATA ONLY)
CLASSIFIED OPERATIONS (UNCLAS TOMBSTONE DATA ONLY)
Operations Prior to 1990 (TOMBSTONE DATA ONLY)

1.6 Conversion from Word to Access

By definition a database is a collection of organized data. The original FIVE-W database was created in Microsoft Word and consisted of over 100 data tables arranged by world region. While by the strictest definition the FIVE-W was a “database”, the full potential of its data was severely hobbled by its format. The first stage of this project became the conversion of the data into a relational database managed with the Database Management System (DBMS) software – Microsoft’s Access 2010.

An Access database was created to hold the data with careful attention to ensuring all data could be imported – nothing was to be omitted. The free format of the Word tables meant that the data extraction could not be electronically transferred. Thus the 200+ Word tables were manually cut and pasted line-by-line into the new structure to ensure nothing was lost.

A number of additional data fields were added to capture the remarks and amplifying data that had been stored alongside the data in the Word tables.

Operations that had been merged into single data tables in the original FIVE-W were separated into their own individual records in the 5W DB 2015.

A new data element was created in 5W DB 2015 for “Additional Names” to more easily identify operations that changed nicknames or may have been known by another name for any reason.

In the original database, airlift data was alternately recorded either under the “Airlift” or the “Equipment/Aircraft” data elements. In the 5W DB 2015, military airlift is recorded as equipment usage with its airlift role recorded as a remark. The Airlift and Sealift data tables were reserved for commercial lift. Also, a new mission-task, “7.07 Conduct Military Airlift”, was added to the mission-task taxonomy.

Finally, a table was added to the database that manages data updates and identifies missing data. This table tracks the update status of each record and allows the researcher to identify when data is missing.

1.7 The FIVE-Ws

The FIVE-W database was designed to answer the following five questions:

- Where – Location of the operation, including classification by major geographic regions (Canada, Americas, Europe, Africa, Middle East, Asia, Oceania, Pacific, Atlantic and Global);
- When – Start and end dates for Canadian contributions to the operation. Since the underlying situation may well have more extended timelines, the database included a chronology of key events before, during, and after each operation [1];
- Why – Sufficient context to establish the situation. The operation’s Aim or Objective was included along with the detailed taxonomy of missions and/or tasks. For each operation, those missions and tasks undertaken by CAF were identified;
- Who – The types of units and total numbers of personnel that were deployed [1]; and,
- What – The number of major platforms and equipment/combat systems deployed on each operation. A duration estimate is also explicitly listed for each unit and major equipment deployed, where the estimate is presented in months, measured from the time the personnel or equipment departed their home base until they were redeployed and arrived back to their home base (pre-deployment preparation time and post-deployment recovery time were not included in these duration times). [1]

1.8 Data Collection

With the Access database created, this project shifted to the identification and research of those operations with incomplete data records. Unless there was an obvious problem, any operation that ended prior to 2004 was not reopened and its data was accepted as complete as possible. Ongoing operations, those partially updated in 2011, and all new operations were reviewed and became part of this 2015 update. The following paragraphs provide comment on the data collection process.

Intra/Internets. The vast majority of the newly collected data came from the Defence Wide Area Network (DWAN) intranet or the internet with the source most often being CAF Public Affairs news releases [10]. Internal systems such as SharePoint, Monitor Mass and the Canadian Forces Tasking's, Plans and Operations (CFTPO) software [11] are invaluable resources. Wikipedia offers a page listing CAF operations [12] and a number of sub-pages describing individual operations. Defence newsletters such as the Maple Leaf provide excellent summaries of operations [13]. Military Journals also were a valuable source.

CSNI. Documents posted on classified systems were typically well marked as to their security classification and allowed Unclassified information to be easily identified. Documents that did not have obvious markings were assumed to be classified. Desk Officer responsible for planning and executing operations do not always mirror all the unclassified documentation on their DWAN sharepoint.

DHH War Diaries. The War Diaries section was a tremendous resource. This team of four were responsible for the DHH online database of international operations [7]. This resource is currently unmaintained pending technical support; however, they maintain an updated list of international operations [8] and generate narrative descriptions for each operation. Their most significant resource is a collection of unclassified files arranged by operation name. The staff captures any data hit associated with an operation including internet news reports, extracts from CAF Annual Historical Reports, Operation Orders, Lessons Learned, Situation Reports, etc. The official War Diaries, on the other hand, are filed by unit and highly classified making their usefulness to this project fairly limited. Annual Historical Reports are also filed by unit. Access to both the official War Diaries and the Annual Historical reports requires the deliberate assistance of DHH staff.

CFTPO. [11] This is an invaluable research tool that may contain volumes of data on personnel and equipment; however, it is important to understand its limitations. It is a tool for personnel staffs to identify incremental personnel/equipment requirements and a means of finding CAF-wide solutions. The data is not consistently populated for every operation and requires validation from other sources.

Airlift. Strategic airlift, especially aircraft the size of the C177 Globemaster, can be supporting a large number of operations at the same time. These flight hours may no longer be easily attributable to a specific operation.

Estimates. There are numerous instances in the Five-W data where an estimate was entered in the absence of recorded data. These were based on interpolations (i.e. flight hours in a month attributed by percentage to the number of days an operation was supported) or calculated from typical conditions (i.e. distance aircraft travelled divided by cruise speed used to estimate flight hours). Estimates are indicated with the remarks for that data. A reminder was also added to the "Update Required" table if there was any expectation that hard data might be discovered later.

2 Deliverable

The primary deliverable of this project was “*an updated FIVE-W Database including the most recent CAF operations*”.

The Microsoft Access file ***FiveW2015.accdb*** is stored in the DRDC CORA shared drive *O:\Teams\SPORT\5W Database* along with all the supporting files and research accumulated during this project. This file is the new FIVE-W Database 2015 and the primary deliverable for this project. Sample data extracts are included as Table 3 listing all FIVE-W operations from 1990-2015 and Table 4 listing the tombstone records. It is expected that the database will also be made available to all DRDC staff through the DRDC NEXUS intranet.

Although not specifically required as a deliverable, a “5W Database 2015 User’s Guide” was created to facilitate data input by future users and to document the construction of the database as an aid to future programmers.

The secondary deliverables have all been completed and previously submitted to the Contract Scientific Authority. They included an Update Plan, Monthly Progress Reports, and a Briefing Note documenting lessons learned during the data collection process.

Table 3: List of CAF Operations from 1990-2015.

OPERATION	Short Title	Dates
ABACUS	Preparations for Year 2000 Computer Problems	28/12/1999 to 5/1/2000
ACCIUS	Military Advisor to UNAMA, Afghanistan	28/11/2002 to 21/6/2005
ACCORD	Liberation of Kuwait - Canadian National Headquarters	7/10/1990 to 16/4/1991
ACRUX	Royal Australian Navy's 100th Anniversary	3/10/2013 to 11/10/2013
ACTIVE ENDEAVOUR	Counter Terrorism in the Mediterranean	26/10/2001 to //
ACTIVE SKIES	Participation in the Open Skies Treaty	1/1/2002 to //
ADDENDA	Embassy Security in Afghanistan	1/4/2014 to //
ADDITION	Observer Mission in Ethiopia & Eritrea Under UNMEE	31/8/2000 to 30/6/2003
ADJACENT	Airlift in Op ATHENA	3/10/2010 to 12/12/2011
AIR BRIDGE	Humanitarian Relief - Airlift into Sarajevo	/7/1992 to /1/1996
AIR TASK FORCE MALI (ATFM)	Support to France's Op SERVAL	14/1/2013 to 19/4/2013
AKWESASNE	Mohawk Protest near Cornwall	2/5/1990 to /11/1990
ALCYON	Disaster Response - Saint John River Flooding	2/5/2008 to 5/5/2008
ALETA	Airlift in Op ATTENTION	8/6/2011 to 12/3/2014
ALLIANCE	NATO Implementation Force (IFOR) in Bosnia-Herzegovina	/12/1995 to 20/12/1996
ALLIED FORCE	Limited Air Operations over Kosovo	24/3/1999 to 24/6/1999
ALLIED PROTECTOR	NATO Anti-Piracy off Horn of Africa	24/3/2009 to 29/6/2009
ALTAIR	Continuing Campaign against Terrorism	16/8/2003 to 29/10/2008
AMBER FOX	Support to EU and OSCE Mission in Macedonia	27/9/2001 to 1/10/2002
AMBUSCADE	Fisheries Surveillance Operation	5/3/1993 to 12/3/1993
ANCHOR GUARD	Protection of Turkish airspace after the Iraqi invasion of Kuwait	8/8/1990 to 28/2/1991
APOLLO	Campaign Against Terrorism	11/9/2001 to 14/12/2003
AQUILA	Rescue of Fishing Vessel (FV) L'ACADIEN II Crew	29/3/2008 to 29/3/2008

OPERATION	Short Title	Dates
ARCHER	Provincial Reconstruction Team in Kandahar	1/10/2004 to 31/8/2009
ARCTIC STORM	Major Air Disaster (MAJAID) near CFS Alert	30/10/1991 to 1/11/1991
ARGONAUT	Disaster Response - Accommodation Assistance for the Homeless	15/1/2004 to 12/2/2004
ARGUS	Afghanistan Government Advisory Staff in Kabul	29/8/2005 to /8/2008
ARTEMIS	CTF-150 Operations off the Horn of Africa	1/5/2012 to //
ARTISAN	Disaster Response - Infrastructure Restoration in Albania	15/1/2001 to 14/11/2001
ASSIST	Post Gulf War - Humanitarian Assistance to Kurds in Iraq	10/4/1991 to 28/5/1991
ASSISTANCE	Disaster Response - Red River Flooding	21/4/1997 to /6/1997
ASSURANCE	Humanitarian Relief - Zaire / Rwanda	12/11/1996 to 31/12/1996
ATHENA	International Security Assistance Force (ISAF), Afghanistan	12/2/2003 to 1/12/2011
ATTENTION	NATO Training Mission – Afghanistan (NTM-A)	27/4/2011 to 12/3/2014
AUGMENTATION	Enforcement of UN sanctions against Iraq	18/6/1999 to 14/9/2001
AUGURAL	African Union Mission in Sudan (AMIS)	1/9/2004 to 31/12/2007
AUTHOR	Monitor the 2008 Seal Hunt	11/4/2008 to /4/2008
AVENUE	Disaster Response - Forest Fire Mitigation in Central Newfoundland	23/6/2012 to 27/6/2012
AXE	Post-Gulf War -Weapons Research	1/3/1991 to 30/4/1991
BALLOON CHASE	Weather Balloon becomes Hazard to Air Navigation	//1998 to //1999
BARKHANE	Support to France's Counter-Terrorism Op in the Sahel Region	28/9/2015 to //
BARRIER	Maritime Interdiction Force (MIF) Deployment	21/4/1992 to 4/7/1992
BEAUFORT SENTINEL	Arctic Sovereignty in the western Arctic	8/8/2006 to 13/8/2006
Belize 2002	Humanitarian Relief - Belize after Hurricane Iris	1/2/2002 to 7/2/2002
BELT	OGDA Support in the Atlantic	//1993 to //1993
BISON	Airlift Coordination Support to SFOR	19/3/1997 to 28/6/1998

OPERATION	Short Title	Dates
BLUEBIRD	Narcotics Interdiction in the Atlantic	//1991 to //1994
BOLSTER	European Community Monitor Mission in Yugoslavia	8/9/1991 to 19/12/1995
BOREAL	Humanitarian Relief - Former Soviet Republics	26/1/1992 to 5/8/1994
BOREAS	Peace Support Operations in Bosnia-Herzegovina Under EUFOR	2/12/2004 to 29/3/2007
BOXTOP	Semi-Annual Airlift to Resupply CFS Alert	//1956 to //
BRONZE	Staff for NATO HQ in Sarajevo Under EUFOR	/10/2004 to 29/3/2010
Burma 2008	Humanitarian Relief - Burma/Myanmar after Cyclone Nargis	14/5/2008 to 19/5/2008
CADENCE (1994)	Border Monitoring between the Dominican Republic and Haiti	1/9/1994 to 30/9/1994
CADENCE 2010	Security for the 2010 G8 and G20 summits	20/6/2010 to 29/6/2010
CALUMET	Multi-National Force and Observers (MFO) in Sinai Peninsula	1/9/1985 to //
CALVETTE	Narcotics Interdiction in the St Lawrence	/4/2004 to /4/2004
CANOPY	Disaster Response - Kashechewan Reserve Water Purification	24/10/2005 to 17/12/2005
CANTON	Disaster Response - Central Ontario Winter Storm	13/12/2010 to 17/12/2010
CARAVAN	UN Airlift Support In Democratic Republic of Congo	30/5/2003 to 6/7/2003
CARIBBE	Drug interdiction in Caribbean & Eastern Pacific	19/3/2006 to //
CAULDRON	Disaster Relief - (Attempted) Infrastructure Assistance to Haiti Under UNMIH	23/9/1993 to 16/10/1993
CAVALIER	UNPROFOR in Bosnia-Herzegovina	13/9/1992 to 31/3/1995
CENTRAL	Humanitarian Relief - Honduras after Hurricane Mitch	4/11/1998 to 23/12/1998
CF188 RECOVERY	Recover Crashed CF188 Off West Coast	20/5/1990 to 8/8/1990
CHABANEL	Narcotics Interdiction in the Atlantic	10/4/2006 to 23/5/2006
CHAPERON	Prevlaka Peninsula Observer Mission Under UNMOP	1/2/1996 to 1/9/2002
CLAIRE LILLEY	Underwater UXO Survey of SS CLAIR LILLEY	12/10/1999 to 13/10/1999
CMAC	Cambodia Mine Action Centre (CMAC)	/12/1993 to 30/6/2000

OPERATION	Short Title	Dates
COLUMBIE	Narcotic Interdiction in the Atlantic - Yacht FRIENDSHIP	30/6/2004 to 5/7/2004
COMPLIMENT	Compliment civilian police mission in Haiti Under MIPONUH	1/12/1997 to 26/3/2000
CONNECTION (CARE I,II,III)	NGO Support to CARE Canada	17/11/1997 to 27/5/2001
CONSONANCE	Observer Mission in Mozambique Under ONUMOZ	14/2/1993 to 13/1/1995
CONSORT	Observer Mission in Somalia under UNOSOM II	/4/1993 to /7/1994
CONSTABLE (data included in OP PIVOT)	United Nations Transition Mission in Haiti (UNTMIH)	30/7/1997 to 30/11/1997
CONTACT	Croatia Contamination Assessment	1/7/1999 to 31/8/1999
CONTINUING PROMISE 2008	USS KEARSARGE Goodwill Deployment	6/8/2008 to 1/12/2008
CONTINUING PROMISE 2009	USNS COMFORT Goodwill Deployment	1/4/2009 to 30/7/2009
CORDON	Somalia Observer Mission Under UNOSOM I	/10/1992 to 26/3/1993
Costa Rica 1995	Humanitarian Relief - Costa Rica	15/6/1995 to 16/6/1995
CPAG - SOUTH AFRICA	Commonwealth Peacekeeping Assistance Group - South Africa	21/2/1994 to 9/4/1994
CRATOS 2008	Disaster Response - Evacuation of James Bay Residents	27/4/2008 to 1/5/2008
CRATOS 2009	Disaster Response - ?????? Only appears in CANADA COM AHR	//2009 to //2009
CROCODILE	Observer Mission in Congo Under MONUSCO	26/9/1999 to //
DANACA	Disengagement Observer Force in Syria under UNDOF	31/5/1974 to 24/3/2006
DECIMAL	Mine Awareness and Clearance Training in Pakistan	2/2/1989 to 30/8/1990
DECISIVE ENDEAVOR	NATO support to UN IFOR in B-H	21/12/1995 to 20/12/1996
DELIBERATE FORCE	NATO support to UN in B-H	29/8/1995 to 20/9/1995
DELIBERATE FORGE	NATO support to UN in B-H (SFOR II)	20/6/1998 to 12/10/1998
DELIBERATE GUARD	NATO support to UN in B-H (SFOR)	21/12/1996 to 19/6/1998
DELIVERANCE	UNITAF Operations in Somalia	2/9/1992 to 31/5/1993
DENY FLIGHT	NAEWF&CF Support of UNPROFOR	12/4/1993 to 20/12/1995

OPERATION	Short Title	Dates
DESERT THUNDER	Build-up of coalition forces in Persian Gulf - UNSCOM	24/1/1998 to 15/12/1998
DETERMINATION	Multi-National Force blockade of Iraqi Ports	11/2/1998 to 16/6/1998
DETERMINED FORCE	NATO Air Operations in support of SFOR	13/10/1998 to 23/3/1999
DIALOGUE	Non-Combatant Evacuation in Haiti and Emergency Extraction of Op CAULDRON forces	23/9/1993 to 12/10/1993
DISPLAY DETERRENCE	NAEWF&CF over Turkey	20/2/2003 to 16/4/2003
DISTINCTION	Military History Commemoration Programme	1/6/2012 to //2020
DISTINGUISHED GAMES	NATO support to Olympic Games in Athens	2/8/2004 to 29/9/2004
Dominican Republic 2012	Humanitarian Relief - Airlift of Firefighting/Medical Equipment	14/6/2012 to 15/6/2012
DRIFTNET	Moratorium Enforcement of High-Seas Driftnet Fishing	/5/1993 to //
EAGLE ASSIST	NAEWF&CF Defence of the USA	9/10/2001 to 16/5/2002
ECHO	Air Operations in support of NATO Operations in the Balkans	20/6/1998 to 21/12/2000
ECLIPSE	UN Mission in Ethiopia-Eritrea (UNMEE)	21/11/2000 to 30/6/2001
El Salvador 1994	Humanitarian Relief - El Salvador Orphanage	26/6/1994 to 26/6/1994
El Salvador 2001	Humanitarian Relief - Major Earthquake in El Salvador	14/1/2001 to 16/1/2001
ELOCUTION	12th Summit of the International Organisation of La Francophonie	14/10/2008 to 19/10/2008
EOS	ISAF Defence Minister Meeting	12/4/2007 to 12/4/2007
ESPLANADE	NATO Minister's Conference in Toronto	20/9/1999 to 22/9/1999
EVOLUTION	49th International Eucharistic Congress	15/6/2008 to 22/6/2008
FIREFLY	Repatriation of Heritage Aircraft - FAIREY FIREFLY	7/9/1993 to 21/10/1993
FLAG	Multi-National Interception Force (MIF) in the Persian Gulf Areas	4/1/1991 to 2/8/1991
FLUTE	Humanitarian Relief - Antigua after Hurricane Luis	8/9/1995 to 4/10/1995
FORAGE	NATO Cease-Fire Monitor Mission in Macedonia	18/8/2001 to 26/9/2002
FORGE	Disaster Response - Northern Ontario Forest Fire Evacuation	19/7/2011 to 23/7/2011

OPERATION	Short Title	Dates
FORUM	Post Gulf War - WMD Inspections in Iraq under UNSCOM	10/4/1991 to /4/2000
FORWARD ACTION	Enforcement of UN Sanctions Against Haiti	16/10/1993 to 30/9/1994
FOUNDATION	Continuing Campaign Against Terrorism	16/8/2003 to //
FRICTION	Liberation of Kuwait - Naval Task Group	10/8/1990 to 16/4/1991
FUSION	Support To EU Mission in Macedonia	26/3/2003 to 13/5/2003
GLADIUS	Disengagement Observer Force in Syria under UNDOF	24/3/2006 to 7/9/2012
GLAUCUS	Greece Olympics security	1/8/2004 to 30/9/2004
GRIZZLY	G8 Summit Security Support, Kananaskis AB	/5/2002 to /7/2002
GROUSE	Fisheries Surveillance Operation	26/9/1994 to 8/10/1994
GUARANTOR	NATO Extraction Force For Kosovo Verification Mission	22/12/1998 to 15/4/1999
Guatemala 2010	Humanitarian Relief - Guatemala after Depression Matthew	29/9/2010 to 1/10/2010
Hagerstown Fire 1990	Disaster Response - Hagerstown Tire Dump Fire	12/2/1990 to 28/2/1990
Haiti 1999	Humanitarian Relief - Assistance to Haiti 1999	12/1/1999 to 12/1/1999
Haiti 2004	Humanitarian Relief - Haiti after Hurricanes Ivan & Jeanne	22/9/2004 to 21/12/2004
Halifax Bomber 1995	Repatriation of Heritage Aircraft - HANDLEY PAGE HALIFAX	24/9/1995 to 12/12/1995
HALO	United Nations Stability and Security Force in Haiti	5/3/2004 to 16/8/2004
HAMLET	Stability and Security in Haiti under MINUSTAH	22/5/2004 to //
HARMONY	UNPROFOR operations in Croatia	1/3/1992 to 31/3/1995
HEARTH	OGDA Support in the Atlantic	//1995 to //1995
HEAVE-TO	Interdiction of Human Trafficking - MV CALA PUEBLA	28/3/2007 to 10/4/2007
HERALD	OGDA Support in the Atlantic	6/5/1991 to 23/6/1991
HERITAGE	Election Verification in Haiti Under ONUVEH	10/10/1990 to 28/2/1990
HESTIA	Humanitarian Relief - Major Earthquake in Haiti	13/1/2010 to 1/4/2010

OPERATION	Short Title	Dates
HIVE	OGDA Support in the Atlantic	7/10/1996 to 11/10/1996
HOGAN	Narcotics Interdiction in the Atlantic	6/8/1993 to 14/8/1993
HORATIO	Humanitarian Relief - Hurricanes Fay, Gustav, Hanna & Ike	10/9/2008 to 27/9/2008
HUDSON SENTINEL	Arctic Sovereignty	15/8/2005 to 30/8/2005
HUMBLE	Canadian Embassy Repairs in Haiti	24/5/2001 to 31/5/2001
HURRICANE	High Arctic Data Communications System (HADACS) engineering and system maintenance	//1982 to 26/7/2008
HYGRADE	Maritime Security Operations	/7/2007 to /7/2007
IGNITION	NATO – Iceland Air Policing Program	28/3/2011 to //
IMAGE	Balkans Peace Support	/1/2001 to 30/6/2002
IMPACT	Support to Middle East Stabilization Force (MESF)	28/8/2014 to //
INVITATION	Arms and explosives decommissioning	/5/1998 to /2/2010
IOLAUS	Advisor to UN Special Rep. of the Secretary-General for Iraq	2/10/2004 to 9/7/2007
IRAQI FREEDOM	2003 invasion of Iraq by US, UK and Australian Forces	19/3/2003 to 1/5/2003
IRIS	Humanitarian Relief - Iraq Reconstruction	29/4/2003 to 4/6/2003
IRON SABRE	Liberation of Kuwait - Munitions Airlift in OP FRICTION	23/2/1991 to 27/2/1991
IRVING WHALE	Pollution Mitigation off PEI	//1993 to //1996
JADE	UN Truce Supervision Organization (UNTSO) Middle East	/2/1954 to //
JAGGY	Narcotics Interdiction in the Atlantic	26/8/1993 to 1/11/1994
JAGUAR	Military aviation and SAR capability support to Jamaica Defence Force	2/8/2011 to 25/11/2011
Jamaica 2007	Humanitarian Relief - Jamaica after Hurricane Dean	23/8/2007 to 24/8/2007
JULES	OGDA Support in the Atlantic	//1994 to //1994
JUSTICE	Monitoring Mission in Former Yugoslavia Under UNCOE	6/10/1992 to 30/4/1994
KAYAK	Kosovo Verification Coordination Centre (KVCC)	1/1/1999 to 1/4/1999

OPERATION	Short Title	Dates
KEEPSAKE	Repatriation of Mementos and Artifacts of CF Mission in Afghanistan	/1/2010 to /11/2011
KIMONO	Diplomatic Observer Missions in Kosovo	/10/1998 to 24/3/1999
KINETIC	Contribution NATO Kosovo Force (KFOR)	24/3/1999 to 8/5/2000
KOBOLD	Canadian team serving with the NATO Kosovo Force	15/8/2008 to //
LABATUS	Re-Entry of Satellite "USA 193"	20/2/2008 to 20/2/2008
LAINÉ	Support to UN Mission in Liberia (UNMIL)	23/9/2003 to 17/11/2003
LAMA (A) 2-10	Disaster Response - Newfoundland after Hurricane IGOR	24/9/2010 to 8/10/2010
LAMA 2009	Disaster Response - East Coast after Tropical Storm DANNY	29/8/2009 to /9/2009
LANCASTER	Arctic Sovereignty in the Eastern Arctic	12/8/2006 to 22/8/2006
LANCE	Operations in Rwanda Under UNAMIR I and II	5/10/1993 to 15/2/1996
LASER 09	H1N1 Vaccination	/4/2009 to /1/2010
LEGATION	Humanitarian Relief - Zaire	2/11/1996 to 6/12/1996
LENTUS 13-01	Disaster Response - Major flooding in Southern Alberta	20/6/2013 to 28/6/2013
LENTUS 14-01, 14-02, and 14-03	Disaster Response - Flooding in James Bay Region	7/5/2014 to 20/5/2014
LENTUS 14-05	Disaster Response - Major flooding in Southern Manitoba	4/7/2014 to 11/7/2014
LENTUS 15-01	Disaster Response - Spring flooding in Kashechewan	28/4/2015 to 22/5/2015
LENTUS 15-02	Disaster Response - Saskatchewan Wildfires	7/7/2015 to 20/7/2015
Les Jeux de la Francophonie	Major event support - "Les Jeux de la Francophonie"	14/7/2001 to 24/7/2011
LEVIATHAN	East Coast Maritime Domain Awareness	30/9/2012 to //
LIMPID	Routine Domestic Surveillance Mission(s)	30/9/2012 to //
LIMPIDE	Bosnia Contamination Assessment	1/9/1999 to 5/9/1999
LION	Evacuation of Canadians from Lebanon	12/7/2006 to 3/9/2006
LOBE	Embassy Protection in Libya	18/2/2012 to 15/3/2015
LOBOS	North American Leaders Summit	16/8/2007 to 22/8/2007

OPERATION	Short Title	Dates
LOTUS 11-1	Disaster Response - Flood Mitigation in Quebec	5/5/2011 to 17/6/2011
LUSTRE	Disaster Response - Flood Mitigation in Manitoba	8/5/2011 to 19/5/2011
LYNX 2007	Disaster Response - Forest Fire Mitigation in Manitoba	25/7/2007 to 25/7/2007
LYNX 2008	Disaster Response - Forest Fire Mitigation in British Columbia	//2008 to //2008
LYRE	Disaster Response - Flood Assistance in Manitoba	2/7/2011 to 5/7/2011
MAGNOLIA	Liberation of Kuwait - EOD and Mine Clearance	13/3/1991 to 17/4/1991
MANDABLE	APEC '97 Summit Security, Vancouver	11/11/1997 to 25/11/1997
MANDARIN	Logistics Support to CF UNPROFOR Units	/10/1992 to /12/1995
MANDOLIN	XIII Pan-American Games held in Winnipeg MB	/7/1999 to /8/1999
MANDRILL	Disaster Response - Alberta Forest Fires	6/8/1998 to 30/8/1998
MAPLE	Occupation of Camp Ipperwash	25/11/1994 to 29/7/1995
MARBLE	16th World Petroleum Congress	8/6/2000 to 17/6/2000
MARITIME GUARD	Enforcement of the UN Embargo of the Former Republic of Yugoslavia	22/11/1992 to 15/6/1993
MARITIME MONITOR	NATO/WEU enforcement of sanctions in Balkans	16/7/1992 to 22/11/1992
MARQUIS	Transitional Authority in Cambodia Under UNTAC	15/3/1992 to /11/1993
MATADOR	Transition to Independence for Namibia under UNTAG	1/4/1989 to 31/3/1990
MATCH	Observer Mission in El Salvador Under ONUSAL and HA	/7/1992 to /8/1994
MATTOCK	Disaster Response - Forest Fires in Alberta	/5/1998 to /5/1998
MEDUSA (1995)	United Nations Confidence Restoration Organization (UNCRO)	31/3/1995 to 17/10/1995
MEGAPHONE	GTS Katie Affair Off Canada's East Coast	18/7/2000 to 6/8/2000
MEMORIA	Repatriation and Interment of the "Unknown Soldier"	16/12/1998 to 28/5/2000
MENTOR	Arms Control Inspectors in Bosnia-Herzegovina	1/7/1997 to //
MERCATOR	Multi-National Interception Force (MIF) in the Persian Gulf	16/6/1998 to 8/12/1998

OPERATION	Short Title	Dates
MERCEDES	Delivery of Mercedes jeeps to Afghanistan	5/3/2004 to 15/9/2004
METRIC	Warship deployments to the Mediterranean region	8/1/2012 to 1/5/2012
METRONOME	SFOR equipment repatriation	3/10/2002 to 31/10/2002
Mexico 1991-1995	Humanitarian Relief - Mexican Orphanage	3/3/1991 to 15/4/1995
Mexico 1997	Humanitarian Relief - Mexican Red Cross	28/2/1997 to 28/2/1997
MIKADO	Humanitarian Relief - Kosovo refugees	9/4/1999 to 19/4/1999
MIRADOR	No-Fly Zone Enforcement in Bosnia-Herzegovina	15/8/1997 to 15/11/1997
MITIGATE	OSCE Plan of Action on Small Arms and Light Weapons	21/3/2011 to //
MOBILE	Libyan Civil War	25/2/2011 to 31/10/2011
MODULE	Mine Action Centre in Mozambique	1/4/1999 to 28/7/2000
MOLLUSC	Disaster Response - Fighting forest fires in British Columbia	6/8/1998 to 30/8/1998
MONARCH	SFOR repatriation of equipment	/1/2002 to 21/5/2002
Montserrat Volcano Eruption (1995)	Humanitarian Relief - Montserrat after a volcanic eruption	19/7/1995 to /7/1995
Mozambique 2000	Humanitarian Relief - Severe Flooding in Mozambique	7/3/2000 to 11/3/2000
NANOOK	Annual Arctic Sovereignty Ops in the High and East Arctic	7/8/2007 to //
NARWHAL 2007	Support to OGDAs in the Arctic	16/4/2007 to 27/4/2007
NATO Military Assistance to Portugal	Portugal 2004 European Football Championship	11/6/2004 to 6/7/2004
NECESSITY	Liberation of Kuwait - Infrastructure Restoration	1/3/1991 to 7/3/1991
Nepal 1994	Humanitarian Relief - Major Flooding in Nepal	1/2/1994 to 2/2/1994
NEVUS	Annual maintenance of the High Arctic Data Communications System (HADCS)	1/6/2009 to //
Nicaragua 2007	Humanitarian Relief - Nicaragua after Hurricane Felix	7/9/2007 to 7/9/2007
NIJMEGEN	Annual Nijmegen March	//1952 to //
NIMROD	Major Air Disaster in Lake Ontario	//1995 to //1995

OPERATION	Short Title	Dates
NOBLE	Mine Action Centre in Bosnia-Herzegovina	/4/1997 to /2/2000
NOBLE EAGLE	NORAD Air Defence over North America	11/9/2001 to //
NOMAD	Repatriation of Heritage Aircraft - NORTHROP A-17 NOMAD	11/10/2011 to 4/11/2014
NORTHERN DENIAL	NORAD Air Defence in the High Arctic	29/11/2000 to 14/12/2000
NORTHERN WATCH	No-Fly Zone over Northern Iraq	1/1/1997 to 20/3/2003
NTIM-I	NATO Training Implementation Mission - Iraq	30/7/2004 to 16/12/2004
NTM-I	NATO Training Mission - Iraq	16/12/2004 to 31/12/2009
NUNAKPUT	Supporting Law Enforcement in the Arctic	31/7/2007 to //
NUNALIVUT	Annual Arctic Sovereignty Ops in the High and Central Arctic	22/3/2006 to //
NYLON	OSCE Observation Mission in Armenia and Azerbaijan	20/3/1995 to 30/6/1996
OASIS	Disaster Response - Electrical Power Generation in Ontario	14/8/2003 to 22/8/2003
OCEAN VIGILANCE	'Turbot War' – Alleged Spanish overfishing of Grand Banks	6/3/1995 to 16/4/1995
OCTAL	Disaster Response - Accommodation Assistance for the Homeless	/6/1999 to 15/12/1999
Olympic Flame 2009	Delivery of Olympic Flame to Canada	28/10/2009 to 30/10/2009
ONUVEN	UN Observer Mission for the Verification of the Electoral Process in Nicaragua	25/8/1989 to 1/4/1990
OPCW 2013	Organization for the Prohibition of Chemical Weapons 2013	17/10/2014 to 20/10/2014
OPEN SPIRIT	Multinational disposal of Maritime explosive remnants of war in the Baltic	14/5/2012 to //
OPEN VIEW	Chemical Weapons Convention (CWC) Obligations	29/4/1997 to //
ORACLE	Disaster Response - SARS Outbreak in Canada	28/4/2003 to /6/2003
OSGAP	Office of the Secretary General in Afghanistan & Pakistan	15/3/1990 to 31/1/1993
PACIFIC PARTNERSHIP 2007	USS PELELIU Goodwill Deployment	15/6/2007 to 7/10/2007
PACIFIC PARTNERSHIP 2008	USNS MERCY Goodwill Deployment	1/5/2008 to 15/9/2008

OPERATION	Short Title	Dates
PACIFIC PARTNERSHIP 2011	USS CLEVELAND Goodwill Deployment	5/4/2011 to 21/7/2011
PALACI	Avalanche Prevention Programme in BC	/11/1965 to /4/2016
PALLADIUM	NATO Stabilization Force (SFOR) in Bosnia-Herzegovina	20/12/1995 to 2/12/2004
PANORAMA	Forward Air Controllers in Bosnia Under UNPROFOR	19/7/1993 to /11/1995
PARAPET	Ceremonial Guard in London England	14/4/1998 to 6/10/2000
PARASOL	Temporary Accommodations for Kosovars in Canada	5/4/1999 to 30/8/1999
PARTNERSHIP FOR THE AMERICAS 2007	USNS COMFORT Medical Assistance Deployment	15/6/2007 to 14/10/2007
PASSAGE	Humanitarian Relief - Rwanda in support of UNHCR	2/8/1994 to 15/10/1994
PASSIVE SKIES	OPEN SKIES Treaty observation flights over Canada	24/3/1992 to //
PASTEL	Angola Verification Mission under UNAVEM II	31/5/1991 to 31/5/1993
PERCHERON	SFOR equipment repatriation	17/1/2004 to 21/4/2004
PEREGRINE	Disaster Response - British Columbia Forest Fires	2/8/2003 to 5/10/2003
PERSEVERANCE	Diplomatic Observer and Verification Missions in Kosovo	1/8/1998 to 13/1/1999
PERSISTENCE	Disaster Response - SwissAir Air Disaster in Nova Scotia	2/9/1998 to 14/12/1998
Perth ON Flood 1998	Flood mitigation in Perth ON	/2/1998 to /2/1998
Peru 1991	Humanitarian Relief - Cholera Epidemic in Peru	24/6/1991 to 27/6/1991
Pine Lake Tornado 2000	Disaster Response - Pine Lake Alberta Tornado Strike	15/7/2000 to 17/7/2000
PIVOT (includes STANDARD, STABLE, and CONSTABLE)	Security and Stability Missions in Haiti Under UNMIH, UNSMIH, and UNTMIH	31/3/1995 to 22/12/1997
PIXEL	OAS General Assembly 2000	4/6/2000 to 6/6/2000
PLATEAU	Humanitarian Relief - Major Earthquake in Pakistan	11/10/2005 to 9/12/2005
PLUME	Disaster Response - Alberta Forest Fires	//2002 to //2002

OPERATION	Short Title	Dates
PODIUM (2001)	8th Int'l Amateur Athletic Federation (IAAF) World Championships	3/8/2001 to 12/8/2001
PODIUM (2010)	Vancouver 2010 Olympic and Paralympic Winter Games	12/1/2009 to 31/7/2010
PONTOON	Disaster Response - Fraser River Flooding	25/5/2007 to 15/6/2007
POSEIDON 1-10	Interdiction of Human Trafficking - MV SUN SEA	9/8/2010 to 15/8/2010
POSEIDON 2009	Interdiction of Human Trafficking - MV OCEAN LADY	15/10/2009 to 17/10/2009
PREAMBLE	Disaster Response - Major Winter Storm in Toronto	1/1/1999 to 7/1/1999
PRESERVE	Humanitarian Relief - Ethiopian Famine Relief	24/6/1991 to 18/12/1991
PREVENTION	Multi-National Interception Force (MIF) in the Persian Gulf Area	21/2/1997 to 21/8/1997
PRINCIPAL	Evacuation of Canadian Nationals From Haiti	26/2/2004 to 9/3/2004
PROFILE	US Presidential Visit to Ottawa and Halifax, 2004	30/11/2004 to 1/12/2004
PROMENADE (1995)	DFAIT technology marketing plan	9/2/1995 to 1/5/1995
PROTEUS	Palestinian Authority Advisor	20/7/2005 to //
PROVIDE COMFORT	Surveillance and control for airlift of HA to Iraq	6/4/1991 to 31/12/1996
PROVISION	Syrian Refugee Crisis	28/11/2015 to //
PRUDENCE	Stability Mission in Central African Republic Under MINURCA	1/5/1998 to 20/12/1999
PYRAMID	Disaster Response - Heavy Snowfall in BC	29/12/1996 to 31/12/1996
PYTHON	MINURSO - Western Sahara Self Determination	29/4/1991 to 29/6/1994
QIMMIQ	Arctic Domain Awareness	30/9/2012 to //
QUADRANT	Group Name for several minor Ops in the Balkans	10/6/1999 to /9/2002
QUADRILLE	Summit of the Americas 2001	/4/2001 to /4/2001
QUARTZ	United Nations Peacekeeping Mission in Guatemala	29/6/1998 to 31/12/2000
QUESTION	Arms Control evaluations, inspections or confidence and security building measures in Eastern Europe	4/3/1992 to //
REASSURANCE	NATO Reassurance Measures for Eastern Europe	17/4/2014 to /6/2016

OPERATION	Short Title	Dates
RECORD	Post Gulf War - UNIKOM Mission in Iraq/Kuwait	9/4/1991 to 15/8/2001
RECUPERATION	Disaster Response - Ice Storm in Ontario and Quebec	8/1/1998 to /2/1998
REDUCTION	Arms Control confirmation in Eastern Europe	11/9/1992 to 31/12/2004
RELIEF	Humanitarian Relief - Airlift to Somalia under UNSOM I	13/8/1992 to 30/6/1993
RENAISSANCE 13-1	Humanitarian Relief - Philippines after Typhoon Haiyan	11/11/2013 to 15/12/2013
RENAISSANCE 15-1	Humanitarian Relief - Nepal following a major earthquake	25/4/2015 to 28/5/2015
RENDER SAFE	Explosive Ordnance Disposal of Unexploded World War II Ordnance	29/10/2013 to //
REPTILE	Observer Mission in Sierra Leone Under UNAMSIL	3/11/1999 to 10/7/2005
ROUNDUP	United Nations Peace Forces Headquarters repatriation	15/12/1995 to 29/12/1995
RUGGED	Narcotics Interdiction in the Atlantic - Yacht FAIR EXCHANGE	19/9/2008 to 22/9/2008
SABOT	Marijuana Eradication Programme	//1989 to //
SAFARI	Missions in Sudan Under UNAMIS and UNMIS	15/7/2004 to 9/7/2011
SAGUENAY	Disaster Response - Saguenay River Flooding	19/7/1996 to 31/7/1996
SAIPH	NATO Maritime Security Operations off the Horn of Africa	25/10/2009 to 31/5/2012
SALON	Mohawk Stand-off at Oka Quebec	11/7/1990 to 2/10/1990
SAPPHIRE	OGDA Assist - Aircraft Crash at Halifax Intl Airport	14/10/2004 to //2004
SARNO	Humanitarian Relief - Sarno Italy Mud Slides	14/5/1998 to 21/6/1998
SATURN	African Union/United Nations Hybrid operation in Darfur (UNAMID)	31/12/2007 to /10/2012
SCABBARD	Liberation of Kuwait - Redeployment of Personnel	21/2/1991 to 16/4/1991
SCALPEL	Liberation of Kuwait - Canadian Field Hospital	16/1/1991 to 3/4/1991
SCIMITAR	Liberation of Kuwait - Fighter Aircraft Squadron	14/9/1990 to 7/3/1991
SCOTCH	Humanitarian Airlift in Rwanda under UNAMIR I	11/4/1994 to 1/10/1994
SCULPTURE	Military Advisory Training Team in Sierra Leone	19/7/2000 to 15/2/2013

OPERATION	Short Title	Dates
SEA LION	West Coast Maritime Domain Awareness	30/9/2012 to //
SEMAPHORE	Interdiction of Human Trafficking Ship	7/9/1999 to 10/9/1999
SEXTANT	Periodic contribution to SNMG1 from Jan 2006 to Jun 2009	11/1/2006 to 2/6/2009
SHARP GUARD	NATO/WEU Enforcement of Sanctions in Balkans	/7/1992 to 19/6/1992
SICILY	70th Anniversary Commemoration of WWII Sicilian Campaign	26/7/2013 to 31/7/2013
SILVER WAKE	Non-Combatant Evacuation Operation in Albania	14/3/1997 to 27/3/1997
SIMORG	OGDA Support in the Atlantic??	//1993 to //1993
SIRIUS	Standing Maritime Group Deployments	6/10/2004 to //
SIRONA	Humanitarian Relief - Ebola Outbreak in Sierra Leone	17/12/2014 to 21/7/2015
SKY MONITOR	Monitoring the No-Fly Zone over FRY	16/10/1992 to 12/4/1993
SNOWGOOSE	Peacekeeping in Cyprus under UNICYP	4/3/1964 to //
SOLITUDE	Liaison To UN Special Representative For West Africa	23/3/2003 to 20/4/2004
SOPRANO	United Nations Mission in the Republic of South Sudan (UNMISS)	9/7/2011 to //
SPEAKER	Admin/Comms Support to CF UNPROFOR Units in Balkans	31/3/1995 to 29/12/1995
SPIRE	OGDA Assist - Winter Storm in Nova Scotia	13/11/2004 to 14/11/2004
SPLINTER	Disaster Response - Canadian Maritimes after Hurricane Juan	29/9/2003 to 5/10/2003
SPONGE	Liberation of Kuwait - UNIKOM Mission in Iraq/Kuwait	11/2/1991 to 17/2/1991
SPRING FORWARD	NORAD Preparedness Operation	3/4/2014 to 14/4/2014
St Lucia 1993	Humanitarian Relief - St Lucia Aid Delivery	12/1/1993 to 14/1/1993
St Lucia 1999	Humanitarian Relief - Airlift an Ambulance to St Lucia	12/1/1999 to 14/1/1999
STABILITY	Deployment of Airfield to an Austere Environment	/4/2008 to /11/2008
STABLE (data included in OP PIVOT)	Security and Stability Missions in Haiti Under UNMIH, UNSMIH, and UNTMIH	/10/1996 to 31/7/1997
STANDARD (data included in OP PIVOT)	Security and Stability Missions in Haiti Under UNMIH, UNSMIH, and UNTMIH	15/4/1996 to /9/1996

OPERATION	Short Title	Dates
STRUCTURE	Humanitarian Relief - Tsunami in Sri Lanka	31/12/2004 to 26/2/2005
SUDAN	Humanitarian Relief - UN Op LIFELINE SUDAN (OLS)	16/3/1993 to 9/4/1993
SULTAN	Observer Mission in Central American Under ONUCA	7/11/1989 to 31/1/1992
SUMMIT DUKE	Honouring British Columbia Regiment Commanding Officers KIA	//2006 to //2006
SUPPORT	Immediate Response to September 11th Terrorist Attacks	11/9/2001 to 15/9/2001
TAHOE	SFOR repatriation of equipment	/4/2003 to /6/2003
TATOU 1	5th Summit of the Americas	6/4/2009 to 19/4/2009
TATOU 2	Commonwealth Heads of Government Meeting 2009	27/10/2009 to 29/11/2009
TAY BRIDGE	Funeral Procession for Queen Elizabeth Queen Mother	31/3/2002 to 10/4/2002
TEMPEST	Humanitarian Relief - Florida & Bahamas after Hurricane Andrew	14/9/1992 to 25/10/1992
Thailand 2005	Humanitarian Relief - Boxing Day Tsunami	7/1/2005 to 13/1/2005
TORRENT	Humanitarian Relief - Earthquake in Turkey	17/8/1999 to 5/10/1999
TOUCAN	Stability Operations in East Timor Under INTERFET	15/9/1999 to 23/5/2001
TRANQUILITY	Multi-National Interception Force (MIF) in the Persian Gulf Area	10/7/1995 to 11/10/1995
TRANSIT	Security for Transfer of Fissile Material	25/9/2000 to 25/9/2000
TRANSIT SKIES	Transiting Aircraft associated with the OPEN SKIES Treaty	//1999 to //
Trinidad 1995	Humanitarian Relief - Trinidad Relief Supplies	1/9/1995 to 2/9/1995
TRIUMPH	Queen Mother's 100th Birthday Celebrations	16/7/2000 to 1/8/2000
TURBOT	Repatriation of UNPROFOR forces	1/10/1995 to 15/11/1995
Turkey 1992	Humanitarian Relief - Earthquake in Turkey	30/3/1992 to 6/4/1992
TWILIGHT	OGDA Assist - Aircraft Crash at Halifax Intl Airport	14/10/2004 to /10/2004
UNAMIC	Advance Mission in Cambodia Under UNAMIC	16/10/1991 to 15/3/1992
UNARMED WARRIOR	Casualty Transport in DESERT SHIELD/STORM	10/1/1991 to 9/3/1991

OPERATION	Short Title	Dates
UNCLENCHED FIST	Munitions Transport in DESERT SHIELD/STORM	17/1/1991 to 8/3/1991
UNGOMAP	United Nations Good Offices Mission in Afghanistan and Pakistan	2/5/1988 to 15/3/1990
UNIFIER	Training Cadre for Ukraine Military	13/6/2015 to //
UNIFY	Humanitarian Relief - USA after Hurrricanes Gustav	31/8/2008 to 7/9/2008
UNIQUE	CFB Goose Bay Protection from Protestors contesting NATO flying operations	8/3/1989 to /10/1995
UNISON 2005	Humanitarian Relief - Hurricane Katrina Relief on US Gulf Coast	5/9/2005 to 7/10/2005
UNMLOY	United Nations Military Liaison Office in Yugoslavia	/1/1991 to 30/6/1992
UNMLT	United Nations Military Liaison Team (Cambodia)	27/11/1993 to 18/5/1994
UNMOGIP	Observer Mission in India & Pakistan Under UNMOGIP	//1949 to /10/1995
UNOMUR	Observer Mission in Uganda/Rwanda Under UNOMUR	22/6/1993 to 5/10/1993
UNPREDEP	Preventative Deployment Force in Macedonia	31/3/1995 to 28/2/1999
VAGABOND	Observer Mission in Iran-Iraq under UNIIMOG	9/8/1988 to 28/2/1991
VALOUR	Funeral for Sgt (Ret'd) Ernest Alvia SMITH	3/8/2005 to 14/8/2005
VERIFY	Arms Control confirmation in Eastern Europe	11/9/1992 to //
VIKING	SHIRBRIG planning element	27/6/1997 to 30/6/2009
VISION	Verification Mission in Guatemala Under MINUGUA	20/1/1997 to 27/5/1997
WALLABY	Native Protest Action in British Columbia	1/7/1995 to 30/9/1995
WALLEYE	Repatriation of CANBAT 1 Personnel from Croatia	15/9/1995 to 17/10/1995
WAPITI	Disaster Response - Red River Flood Mitigation	1/4/2009 to 30/4/2009
WINISK	EOD Support to Clear Legacy Radar Site	1/9/2013 to 27/9/2013
Yugoslavia 1991	Humanitarian Relief - Civil War Victims	25/11/1992 to 30/11/1992

Table 4: Tombstone Records included in the FIVE-W Database

OPERATION	Short Title	Dates
Unexecuted and Cancelled Operations (TOMBSTONE DATA ONLY)		
ABATEMENT	Unexecuted Disaster Response to Flooding in Alberta	8/8/2005 to /8/2005
BROADSWORD	Unexecuted Canadian Ground Force Participation in Gulf War	1/11/1990 to 1/11/1990
CAMPUS	Suppression of Criminal Activities by the Mohawk Warrior Society	/2/1994 to /6/1994
CHARITABLE	Unexecuted Disaster Relief to the Caribbean	22/9/1999 to 14/10/1999
COBRA	Unexecuted Evacuation of UNPROFOR from FRY	/12/1995 to /12/1995
ESCORT	Unexecuted NEO in Haiti	1/11/1991 to 30/3/1992
GOLIATH	OSCE Observer Mission in Georgia	6/10/2008 to 15/4/2009
GRIFFON	Unexecuted Disaster Response to an Earthquake in India	26/1/2001 to /1/2001
PANDA	United Nations Military Observer in Bougainville, Papua New Guinea	//2000 to //2000
SPIRAL	Unexecuted Minefield Clearance in Cyprus	/10/1991 to 19/11/1991
TANGO	Western Sahara Peace Support	15/2/1999 to 15/8/1999
TUNDRA	Reinforcement of United Nations Emergency Force I - Sinai	1/1/1959 to 30/1/1959
UNION	Unexecuted Humanitarian Assistance in the USA after 9/11	13/9/2001 to 14/9/2011
Outside 5W DB Scope (TOMBSTONE DATA ONLY)		
BRIDGE	CH-148 CYCLONE Aircrew, Technical & Support Personnel Force Generation	23/9/2008 to //2016
CONNECTION	CAF Recruiting Initiatives	/1/2006 to //2013
CONSERVATION	Distant Early Warning (DEW) Line Remediation Project	//1995 to //2014
HONOUR	CAF deals with Harmful Sexual Behaviour	14/8/2015 to //
PROGRESS	Force Generation Activity	//2005 to //2006
RECONFIGURATION	Migration of Command & Control systems from Banyan to Windows prior to Y2K	//1999 to //1999
REGULUS	RCN Force Generation Activity	//2010 to //
RESOLUTION	Grievance Backlog	10/6/2014 to 30/6/2015

OPERATION	Short Title	Dates
SANTA CLAUS	Delivery of Christmas parcels to CAF Missions around the world	//1991 to //
SPHERE	VIP Transport for International Criminal Tribunal for Rwanda	10/1/2004 to 15/1/2004
Subordinate Operations (TOMBSTONE DATA ONLY)		
ACHILLES	A Sub-Operation of ATHENA	6/3/2007 to 30/5/2007
ANACONDA	A Sub-Operation of APOLLO	1/3/2002 to 18/3/2002
CHEROKEE SKY	A Sub-Operation of Op APOLLO	/6/2002 to /7/2002
FALCON SUMMIT	A Sub-Operation of ATHENA	15/12/2006 to /1/2007
HARPOON	A Sub-Operation of APOLLO	13/3/2002 to 19/3/2002
HEWAD	A Sub-Operation of ATHENA	12/7/2007 to 17/7/2007
HOOVER	A Sub-Operation of ATHENA	24/5/2007 to 25/5/2007
KEEPING GOODWILL	A Sub-Operation of ATHENA	/9/2007 to 10/9/2007
MEDUSA (2006)	A Sub-Operation of ATHENA	2/9/2006 to 17/9/2006
MOUNTAIN THRUST	A Sub-Operation of ATHENA	15/5/2006 to 31/7/2006
PICKAXE-HANDLE	A Sub-Operation of ATHENA	30/5/2007 to 14/6/2007
TORII	A Sub-Operation of APOLLO	/5/2002 to /5/2002
ZAHARA	A Sub-Operation of ATHENA	/7/2006 to /7/2006
CLASSIFIED OPERATIONS (UNCLAS TOMBSTONE DATA ONLY)		
ACKEE	CANSOFCOM activity	1/3/2013 to 31/3/2015
BREE	from SJS file system	// to //
ENCLAVE	Protection of the Canadian Embassy in Mali	16/1/2013 to 15/12/2013
FULCRUM	CANSOFCOM activity	// to //
INDIGO	from SJS file system	// to //
JACKAL	CANSOFCOM activity	// to //
KODIAK	CANSOFCOM activity	// to //
LEGACY	from SJS file system	// to //
MANTIS	from SJS file system	// to //

OPERATION	Short Title	Dates
MOJAVE	from SJS file system	// to //
NABERIUS	CANSOFCOM activity	20/9/2012 to //
NEW RALEIGH	from SJS file system	// to //
SCYLLA	CJOC Theatre ASW Operations	//2014 to //
Operations Prior to 1990 (TOMBSTONE DATA ONLY)		
ABALONE	Disaster Relief in St Vincent after Volcano Eruption	14/4/1979 to 29/4/1979
AIR STREAM	Air Evacuation of Canadians threatened by Forest Fires	/5/1980 to /7/1980
ANGORA	Contribution to UNIFIL	13/4/1978 to 1/10/1978
AQUARIUS	Severe Water Shortage in New Brunswick	//1982 to //1982
BANDIT	NEO Haiti 1988	5/1/1988 to 9/2/1988
BARBOT	Medical Evacuation of Magdalen Islands	//1982 to //1982
BATON	NEO from Iran	9/9/1978 to 10/1/1979
BEAVER SWEEP	Air Mine Counter-Measure Operations	5/10/1979 to 17/11/1979
BEECHFLIGHT	Ferry RCAF aircraft to Europe	20/5/1959 to 4/6/1959
BLUENOSE	Humanitarian Assistance to Nigeria	12/10/1968 to 15/12/1968
BOLSTER (1979)	Disaster Response to Red River Flooding in Manitoba	22/4/1979 to 19/5/1979
BUGLE	Contribution to the United Nations Emergency Force II	10/8/1979 to 24/12/1979
BULWARK	ALEA to RCMP for Counter-Narcotics	//1979 to //1979
DOLOMITE	Humanitarian Assistance to Italy after major earthquake	7/5/1976 to 12/12/1976
DRAGON BREATH	Humanitarian Assistance - major forest fires in China	1/6/1987 to 8/6/1987
EPIGRAM	FLQ Crisis - Subordinate Operation of ESSAY	/11/1970 to /11/1970
ESSAY	FLQ Crisis - Assistance to the Province of Quebec	15/10/1970 to 28/2/1971
FELLOW	Milhaven Prison Escape Recovery	13/7/1972 to 24/7/1974
FOODLIFT AFRICA	International Humanitarian Assistance	11/7/1973 to 2/8/1973
GABLE	BC Penitentiary Riot	27/9/1976 to 13/12/1976

OPERATION	Short Title	Dates
GALLANT	Contribution to the ICCS in Vietnam	29/1/1973 to 31/7/1973
GAMESCAN 76	1976 Olympic Games	1/6/1976 to 30/9/1976
GINGER	FLQ Crisis - Assistance to RCMP & Ottawa Police	12/10/1970 to 28/2/1971
HAWK	Airlift in support of UN activities in Korea	25/7/1950 to 25/5/1954
HUGO	Humanitarian Aid to Montserrat and Nevis	22/9/1989 to 15/10/1989
IGUANA	West Coast ALEA Counter-Narcotics	14/7/1978 to 15/7/1978
JUMP MOAT	Ferry RCAP aircraft to Europe	2/12/1957 to 24/10/1958
LEAP FROG	Ferry RCAF Aircraft to Europe	1/5/1952 to 30/9/1953
LUTE	Montreal Prison Riot	30/9/1976 to 7/2/1977
MACEDOINE	Humanitarian Assistance to Armenia	12/12/1988 to 22/12/1988
MAGNET	Vietnamese Refugees	24/11/1978 to 9/12/1978
MAGNET II	Vietnamese Refugees	1/7/1979 to 1/1/1981
MAGNET III	Vietnamese Refugees	1/1/1981 to 10/4/1981
MAGNIFICENT	Repatriate RCAF aircraft from Europe	2/2/1957 to 14/2/1957
MALLARD	Support to United Nations Operations in the Congo	28/7/1960 to 31/8/1960
MORNING LIGHT	Satellite KOSMOS-954 Recovery	1/1/1978 to 3/4/1978
NILE	Humanitarian Assistance - Ethiopia 1988	1/6/1988 to 13/9/1988
NIMBLE	Humanitarian Assistance to Zambia	22/12/1965 to 30/4/1966
NIMBLE BAT	Ferry RCAF aircraft to Europe	1/10/1952 to 30/8/1953
OIL	Oil Spill Mitigation for MV ARROW Disaster	23/2/1970 to 1/4/1970
ORIENT	NEO from Nanking China	29/1/1949 to 4/6/1949
OXIDE	Assistance to Election Observers in the Rhodesia/Zimbabwe	2/2/1980 to 13/3/1980
PAUPAUL	FLQ Crisis - Subordinate Operation of ESSAY	/10/1970 to /10/1970

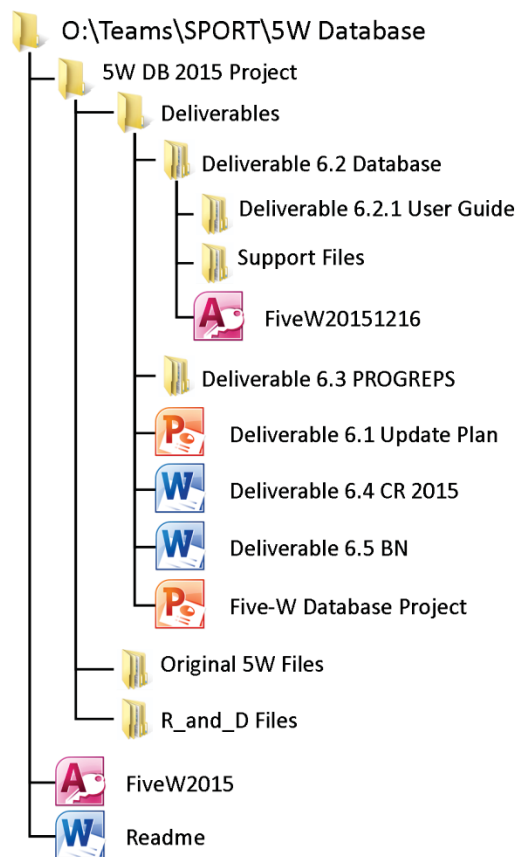
OPERATION	Short Title	Dates
PEACE WINGS	Exchange of CF-101 fighters for newer version	2/7/1970 to 10/10/1972
PEGASUS	FLQ October Crisis	12/10/1969 to 5/1/1970
PELI PELI	NEO from the Congo	2/11/1967 to 20/11/1967
PELICAN	Kingston Prison Riot	14/4/1971 to 21/4/1971
PROMENADE (1976)	Laval Prison Riot	28/9/1976 to 19/12/1976
RAGOUT	FLQ Crisis - Subordinate Operation of ESSAY	3/12/1970 to 3/12/1970
RANDOM	Ferry RCAF aircraft to Europe	11/2/1954 to 27/6/1957
RANDOM WEST	Repatriate RCAF from Europe	17/10/1956 to 20/11/1956
RAPID STEP	Contribution to UNEF I	6/11/1956 to 31/3/1957
READY LIFT	Airlift support to United Nations Emergency Force I (UNEF I)	21/11/1956 to 17/6/1967
RHO DELTA	Ferry RCAF aircraft to Europe	1/9/1962 to 31/5/1965
SECOND SILVER DOZEN	Ferry RCAF aircraft to No. 1 RCAF Air Division in Europe	10/8/1959 to 15/8/1959
SILVER DOZEN	Ferry RCAF aircraft to Europe	9/6/1959 to 15/6/1959
STAR FLIGHT	Ferry RCAF aircraft to Europe	9/5/1958 to 22/5/1958
TOKYO	Resumption of relations with Japan after WW2	26/7/1947 to 1/9/1947
UMIAK	Military Training Assistance to Uganda	//1982 to //1982
UNCMAC	United Nations Command Military Armistice Commission (Korea)	1/7/1953 to //1978
WESTERN WEAL/WEFT	Ferry RCAF aircraft to Europe	17/4/1962 to 3/8/1962
WESTERN WEAR/WAY	Ferry RCAF aircraft to Europe	22/9/1959 to 9/10/1959
WESTPLOY	NEO of Canadian ICCS Personnel in South-East Asia	/1/1973 to /9/1973
WET FOOT	Humanitarian Assistance to the Netherlands	3/2/1953 to 22/2/1953
WOUNDED BUFFALO	Purchase and Recover Crashed Aircraft for use as a flight simulator	/3/1987 to /2/1989

3 Future Work

This database is a snapshot in time capturing operational data that constantly expands. Future work might include the updating of ongoing operations and the addition of any new ones. Historical data collection is rarely perfect. The data collected across the three FIVE-W projects remains incomplete and additional effort could be devoted to minimizing the missing pieces. Specifically, the database attempts to measure the RCAF’s contribution to operations in terms of numbers of aircraft and total hours flown. This data element is less complete or more often missing than any other. While some information may be lost in time, future researchers should nevertheless continue to attempt to discover missing data elements. Furthermore, the 5W DB 2015 now provides a ready means of identifying these missing pieces allowing for a more targeted research strategy.

3.1 Data Files

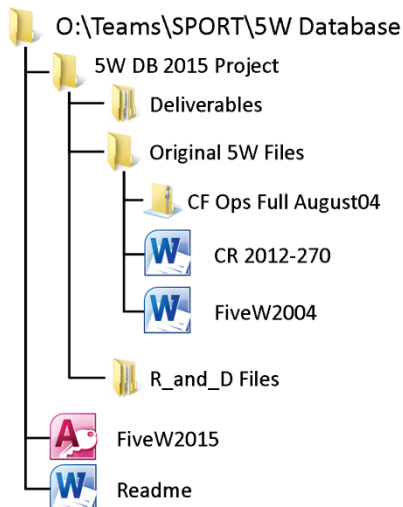
A considerable number of supporting files were compiled or collected during this project. These may prove very helpful to future researchers. They are stored the “5W DB 2015 Project sub-directory in the path “O:\Teams\SPORT\5W Database” along with the live database and a supporting “Readme” file.



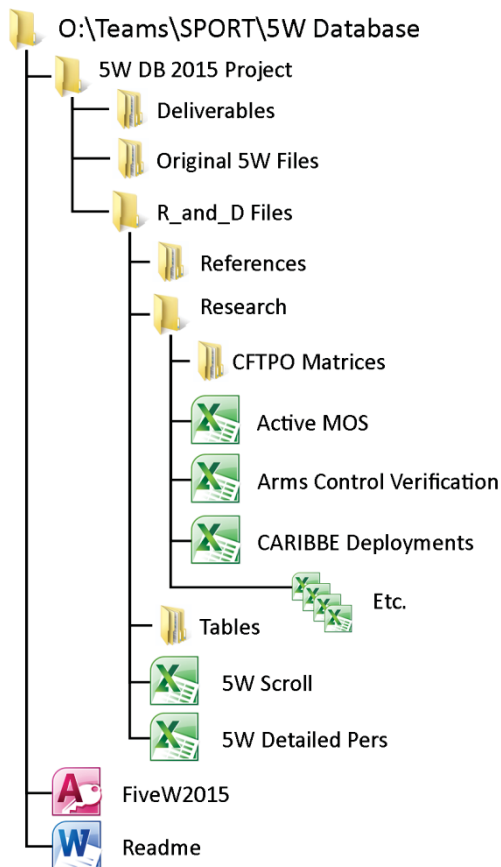
The “5W DB 2015 Project” sub-directory contains:

- (1) A folder titled “Deliverables” containing all the project deliverables in a series of sub-folders. This includes an archived copy of the database, the User’s Guide, the nine Progress Reports, and the other Deliverables shown in this diagram;
- (2) A folder containing the “Original 5W Files” provided at project start; and
- (3) A folder containing the Research and Development Files.

The contents of these last two folders are described on the next page.



The folder “Original 5W Files”, expanded here, contains the files that were provided as the components of the Five-W database at project start. They are an unrelated database of “CF Ops Full August04”, the Contrator Report 2012-270 and the original Five-W “Database” Word document.



The “R_and_D Files” are a collection differing media used in the creation of the 5W 2015. They are:

(a) References. Most of the links in the reference portion of the database are broken as a result of the dynamic nature of the internet and especially the DWAN intranet. Any documents easily captured were collected in the reference folder.

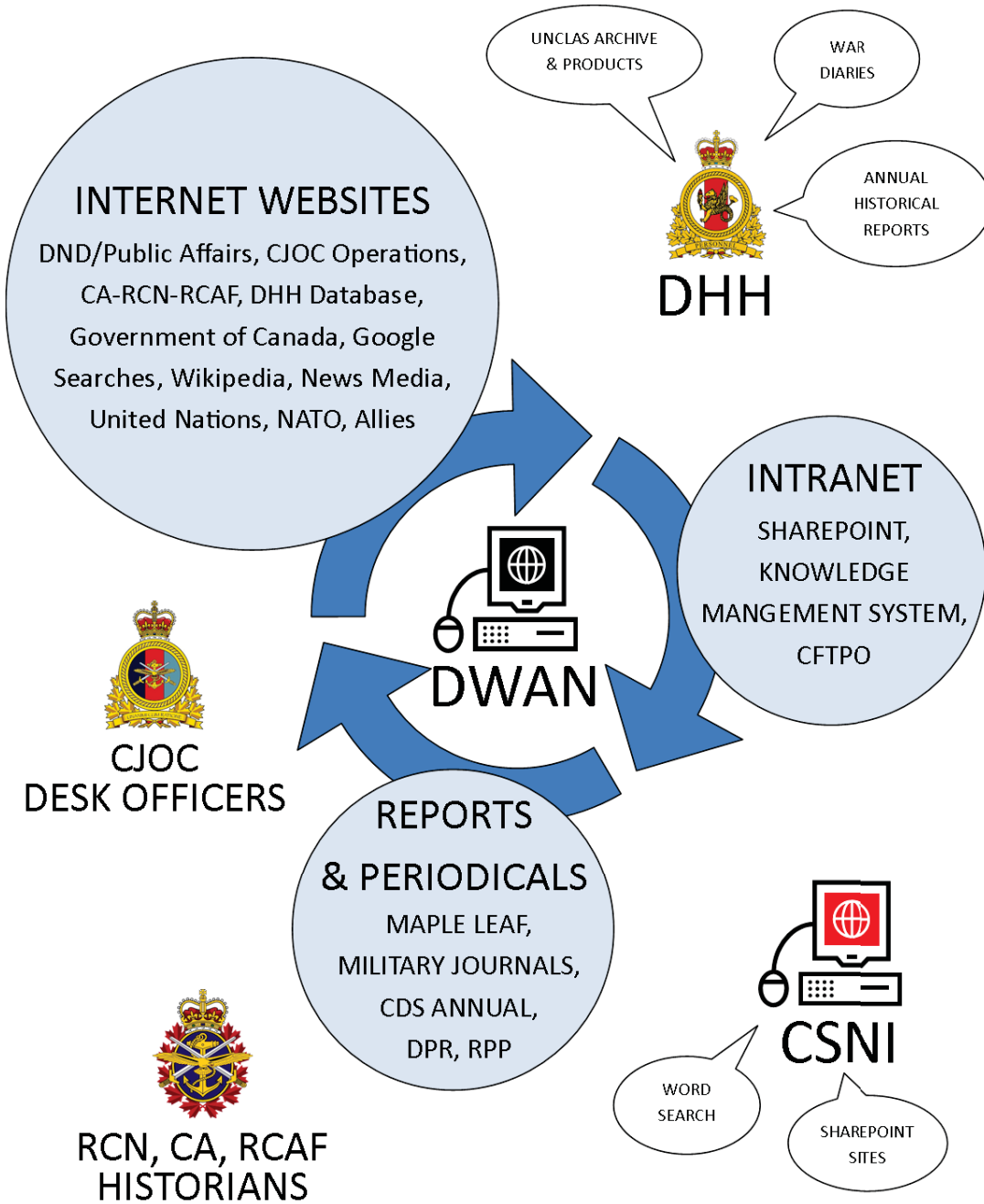
(b) Research. These are files compiled in order to generate the data in the 5W database. Arms Control Verification and Op CARIBBE are prime examples of files that were used to estimate pers/equipment data.

(c) Tables. A collection of files that illustrate the structure of the Taxonomy, equipment and data elements.

This folder also contains a fledgling, gantt-style template “5W Scroll” and the “5W Detailed Pers” Excel spreadsheet. The latter contains worksheets recreating the extensive table that was Annex B in the 2004 Five-W and an attempt to update this with current occupations and data.

3.2 Research Roadmap

This diagram is intended to provide future researchers with a guide to the most productive data sources.



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References

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- [12] Wikipedia, List of Canadian Military Operations (1 October 2015), https://en.wikipedia.org/wiki/List_of_Canadian_military_operations
- [13] Department of National Defence (26 June 2012), Maple Leaf Magazine (online), Government of Canada, <http://www.forces.gc.ca/site/tml/index-eng.asp> (11 October 2012).
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List of Abbreviations

5W DB 2015	Five-W Database 2015
AIO	Air Interdiction Operations
AMIS	African Union Mission in Sudan
APEC	Asia Pacific Economic Cooperation
B-H	Bosnia-Herzegovina
CORA	Centre for Operational Research and Analysis
CA	Canadian Army
CAF	Canadian Armed Forces
CANADA COM	Canada Command
CANBAT	Canadian Battalion
CANSOFCOM	Canadian Special Operations Command
CAP	Combat Air Patrols
CD	Canadian Forces Decoration
CDS	Chief of the Defence Staff
CEFCOM	Canadian Expeditionary Force Command
CFB	Canadian Forces Base
CFS	Canadian Forces Station
CFTPO	Canadian Forces Tasking, Plans, and Operations
CJOC	Canadian Joint Operations Command
CMAC	Cambodia Mine Action Centre
CPAG	Commonwealth Peacekeeping Assistance Group
CR	Contractor Report
CSNI	Consolidated Secret Network Infrastructure
CTF	Commander Task Force
CWC	Chemical Weapons Convention
DART	Disaster Assistance Response Team
DBMS	Database Management System
DCDS	Deputy Chief of Defence Staff
DCI	Director of Capability Integration
DDR	Disarmament, Demobilization and Reintegration

DFAIT	Department of Foreign Affairs and International Trade
DHH	Directorate of History and Heritage
DND	Department of National Defence
DPR	Department Performance Review
DRDC	Defence Research & Development Canada
DRDKIM	Director Research and Development Knowledge and Information Management
DWAN	Defence Wide Area Network
EOD	Explosive Ordnance Disposal
EC	European Community
EU	European Union
EUFOR	European Union Force
FDS	Force Development Scenario
FRY	Former Republic of Yugoslavia
FV	Fishing Vessel
GTS	Gas Turbine Ship
HA	Humanitarian Aid
HADACS	High Arctic Data Communications System
HQ	Headquarters
IAAF	International Amateur Athlete Federation
IFOR	Implementation Force
INTERFET	International Force for East Timor
ISAF	International Security Assistance Force
JIATF	Joint Inter-Agency Task Force
JTF	Joint Task Force
KDOM	Kosovo Diplomatic Observer Mission
KFOR	Kosovo Force
KIA	Killed in Action
KVCC	Kosovo Verification Coordination Centre
KVM	Kosovo Verification Mission
MAJAID	Major Air Disaster
MESF	Middle East Stabilization Force
MFO	Multinational Force and Observers

MIF	Multinational Interception Force
MINUSTAH	United Nations Stabilization Mission in Haiti
MIPONUH	Mission de Police civile des Nations Unies en Haïti (UN Civilian Police Mission in Haiti)
MINUGUA	Mission de vérification des Nations Unies au Guatemala (United Nations Verification Mission in Guatemala)
MINURCA	Mission des Nations Unies en République Centrafricaine (United Nations Mission in the Central African Republic)
MINURSO	Mission des Nations Unies pour l'Organisation d'un Référendum au Sahara Occidental (United Nations Mission for the Referendum in Western Sahara)
MIO	Maritime Interdiction Operations
MONUSCO	United Nations Organization Stabilization Mission in the Democratic Republic of the Congo
MSO	Maritime Security Operations
MV	Motor Vessel
NAEW&CF	NATO Airborne Early Warning and Control Force
NATO	North Atlantic Treaty Organization
NEO	Non-combatant Evacuation Operation
NGO	Non-Governmental Organization
NORAD	North American Aerospace Defence Command
NTM-A	NATO Training Mission - Afghanistan
OAS	Organization of American States
OCA	Offensive Counter-air Operations
OGDA	Other Government Department or Agency
Op	Operation
OLS	Operation Lifeline Sudan
ONUSCA	Observadores de las Naciones Unidas en Centro America (United Nations Observer Group in Central America)
ONUMOZ	Opération des Nations Unies au Mozambique (United Nations Operation in Mozambique)
ONUSAL	Observadores de las Naciones Unidas en El Salvador (United Nations Observer Mission in El Salvador)
ONUVEH	Groupe d'observateurs des Nations Unies pour la vérification des élections à Haïti (United Nations Observer Group for the Verification of the Elections in Haiti)
OPCW	Organization for the Prohibition of Chemical Weapons

OSCE	Organisation for Security and Co-operation in Europe
OSGAP	Office of the Secretary-General in Afghanistan and Pakistan
PAA	Programme Alignment Architecture
PMP	Project Management Professional
POW	Prisoner of War
R&D	Research and Development
RCAF	Roayl Canadian Air Force
RCN	Royal Canadian Navy
RPP	Reports on Plans and Priorities
SARS	Severe Acute Respiratory Syndrome
SFOR	Stabilization Force
SH	Section Head
SHIRBRIG	Standby High-Readiness Brigade
SITREP	Situation Report
SNFL	Standing NATO Forces – Atlantic
SNMG1	Standing NATO Maritime Group 1
SS	Steam Ship
UK	United Kingdom
UN	United Nations
UNAMA	United Nations Assistance Mission in Afghanistan
UNAMIC	United Nations Advance Mission in Cambodia
UNAMID	United Nations Assistance Mission in Dafur
UNAMIR	United Nations Assistance Mission in Rwanda
UNAMIS	United Nations Advance Mission in Sudan
UNAMSIL	United Nations Assistance Mission in Sierra Leone
UNAVEM	United Nations Angola Verification Mission
UNCOE	United Nations Committee of Experts
UNCRO	United Nations Confidence Restoration Operation in Croatia
UNDOF	United Nations Disengagement Observer Force
UNGOMAP	United Nations Good Offices Mission in Afghanistan and Pakistan
UNHCR	United Nations High Commissioner for Refugees
UNFICYP	United Nations Peacekeeping Force in Cyprus

UNIIMOG	United Nations Iran-Iraq Military Observer Group
UNIKOM	United Nations Iraq-Kuwait Observer Mission
UNITAF	Unified Task Force
UNMACC	United Nations Mine Action Co-ordination Centre
UNMEE	United Nations Mission in Ethiopia and Eritrea
UNMIH	United Nations Mission in Haiti
UNMIK	United Nations Mission in Kosovo
UNMIL	United Nations Mission in Liberia
UNMIS	United Nations Mission in Sudan
UNMISS	United Nations Mission in South Sudan
UNMOGIP	United Nations Military Observer Group in India and Pakistan
UNMOP	United Nations Military Observers in Prevlaka
UNMLT	United Nations Military Liaison Team
UNPROFOR	United Nations Protection Force
UNOMUR	United Nations Observer Mission Uganda-Rwanda
UNOSOM	United Nations Operations in Somalia
UNPREDEP	United Nations Preventative Deployment Force
UNSCOM	United Nations Special Commission
UNSMIH	United Nations Support Mission in Haiti
UNTAC	United Nations Transitional Authority in Cambodia
UNTAG	United Nations Transition Assistance Group
UNTMIH	United Nations Transition Mission in Haiti
UNTSO	United Nations Truce Supervision Organization
US	United States
USNS	United States Naval Ship
USS	United States Ship
UXO	Unexploded Ordinance
WEU	Western European Union
WMD	Weapons of Mass Destruction