THE ROYAL CANADIAN

AIR FORCE JOURNAL

SPRING 2013 VOL. 2 NO. 2

IN THIS ISSUE

PRODUCED BY
THE CANADIAN FORCES
AEROSPACE WARFARE CENTRE

National Defence Défense nationale Canada

THE ROYAL CANADIAN AIR FORCE JOURNAL is an official publication of the Commander Royal Canadian Air Force (RCAF) and is published quarterly. It is a forum for discussing concepts, issues, and ideas that are both crucial and central to aerospace power. The *Journal* is dedicated to disseminating the ideas and opinions of not only RCAF personnel, but also those civilians who have an interest in issues of aerospace power. Articles may cover the scope of air force doctrine, training, leadership, lessons learned, and air force operations: past, present, or future. Submissions on related subjects such as ethics, technology, and air force history are also invited. This *Journal* is therefore dedicated to the expression of mature professional thought on the art and science of air warfare and is central to the intellectual health of the RCAF. It serves as a vehicle for the continuing education and professional development of all ranks and personnel in the RCAF as well as members from other environments, employees of government agencies, and academia concerned with air force affairs.

Published by Canadian Forces Aerospace Warfare Centre, Trenton, Ontario
ISSN 1927-7601

For copies of this publication or to be placed on a distribution list contact CFAWCProd@forces.gc.ca

NOTE TO READERS

As a bilingual journal, readers should take note that where quotations are translated from their original language, we will use the term [Translation] at the end of the quote to indicate that readers can find the original text in the other language version of the *Journal*. Unless otherwise noted, photographs appearing in the RCAF *Journal* are attributable to the public domain.

THE ROYAL CANADIAN AIR FORCE JOURNAL

SUBMISSION REQUIREMENTS

THE ROYAL CANADIAN AIR FORCE JOURNAL welcomes the submission of articles, book reviews and shorter pieces (which will be published in the Letters to the Editor, Points of Interest and Pushing the Envelope sections) that cover the scope of air force doctrine, training, leadership, lessons learned and air force operations: past, present or future. Submissions on related subjects such as ethics, technology and air force history are also invited.

JOURNAL SECTIONS

ITEM	WORD LIMIT*	DETAILS
LETTERS TO THE EDITOR	50-250	Commentary on any portion of a previous *Journal*.
ARTICLES	3000-5000	Written in academic style.
BOOK REVIEWS	500-1000	Written in academic style and must include: • the book's complete title (including sub-title); • the complete names of all authors as presented on the title page; • the book's publisher, including where and when it was published; • the book's ISBN and number of pages; and • a high resolution .jpg file (at least 300 dpi and 5 by 7 inches) of the book's cover.
POINTS OF INTEREST	250-1000	Information on any topic (including operations, exercises, and anniversaries) that is of interest to the broader aerospace audience.
PUSHING THE ENVELOPE	250-2000	Forum for commentary, opinions, and rebuttal on *Journal* articles and/or issues that are of interest to the broader aerospace audience.

* Exclusive of endnotes

AUTHORS ARE ASKED TO NOTE THE FOLLOWING GUIDELINES

- Submissions may be made in either official language.
- Authors must include a brief (one paragraph) biographical sketch which includes current appointment/position, telephone number, and email address. Please include all professional and academic designations as well as military decorations.
- Selected articles that have been peer reviewed have a  to the left of the title.
- The Senior Editor will notify contributors on the status of their submission. It may not be possible to publish all submissions.
- All text submissions must be digital, in Microsoft Word or rich text format. Files must not be password protected and must not contain macros. Files may be submitted by mail or email at the addresses provided below.
- All supporting tables, images and figures that accompany the text should be sent in separate files in the original file format (i.e., not imbedded in the text). Original vector files are preferred; high resolution (not less than 300 dpi) .psd or .jpg files may be submitted.
- Authors are now required to provide "alternate text" with detailed description for all figures. Not to be confused with captions, which are still needed. Right mouse click over your illustration and select "format picture" <select "Web" tab> insert "Alternative text:" and click "OK".
- Copyright permissions are required for all material that is not Department of National Defence or author originated. It is the author's responsibility to obtain and submit the necessary written permissions which must include the author's/artist's name as well as the publisher's name and location. Any material not meeting these requirements may be omitted from the article.
- The Senior Editor may select images or have graphics created to accompany submissions.
- Authors should use *Oxford English* or *Petit Robert* spelling. When required, reference notes should be endnotes rather than footnotes and formatted in Chicago style. For assistance refer to *The Little, Brown Handbook, Le guide du rédacteur,* or CFAWC Production Section at CFAWCProd@forces.gc.ca
- Acronyms and abbreviations should be used sparingly:
  - If they are required in the text, the term is to be written out in full the first time it is used and then followed by the abbreviated form in brackets.
  - If they are required in tables or figures, each table and figure will contain a list of abbreviations.
  - A list of all abbreviations (and their terms) used in the text will be included at the end of each submission.
- The Senior Editor reserves the right to edit submissions for style, grammar, and length, but will not make editorial changes that will affect the integrity of the argument without consulting the author.

CALL FOR SUBMISSIONS

FOR THE **FALL 2013** ISSUE: **30 JULY 2013**
FOR THE **WINTER 2014** ISSUE: **30 OCTOBER 2013**
FOR THE **SPRING 2014** ISSUE: **30 JANUARY 2014**
FOR THE **SUMMER 2014** ISSUE: **30 APRIL 2014**

FOR FURTHER INFORMATION OR TO MAKE A SUBMISSION PLEASE CONTACT THE EDITOR AT:

Canadian Forces Aerospace Warfare Centre
8 Wing Trenton
Box 1000 Stn Forces
Astra, Ontario K0K 3W0
Attn: Major William March
William.March@forces.gc.ca

DISCLAIMER

VOL. 2 | NO. 2
SPRING 2013

CF Photo: Cpl Sylvie Kervin

CF Photo: Cpl Pierre Habib

ARTICLES

BOOK REVIEWS

CF Photo: Cpl Aydyn Neifer

EDITOR'S MESSAGE

Anniversaries are important—just ask anyone who has forgotten to appropriately note one that involves their significant other. For organizations, such as the Royal Canadian Air Force (RCAF), the commemoration of important historical achievements is equally necessary. Commemorative activities provide opportunities to collectively celebrate our shared heritage, inculcate our customs and traditions with new members and highlight the yeoman service the RCAF has provided, and continues to provide, to Canada. Hence the importance placed on events such as those surrounding the recognition of the RCAF's role in the Battle of Britain each September and the celebration of our "birthday" on 1 April.

Why am I focusing on anniversaries in this issue of the *Journal*? Simply put, within a few short months there will be a "perfect storm" with respect to significant historical events. August 2014 to November 2019 will mark the 100th anniversary of the First World War—a cataclysmic event that changed the face of Canada forever. From an air power perspective, the war would result in the establishment in this nation of an air industry and training organization from the ground up and although Canadians had fought on far distant fields of battle before, this would be the first time that they would do so in the air. These achievements—not to mention the exploits of our aeronautical pioneers and heroes such as Barker, Bishop and McLeod—should be commemorated during this centenary.

Stretch the above dates a bit—from September 2014 to August 2020—and they encompass the 75th anniversary of the Second World War. While the "War to End All Wars" well and truly set Canada upon the world's stage, the Second World War, a generation later, cemented Canada's role as a member of the international community. Aviation would be a critical element of Canada's contribution to the war effort, as the nation focused its efforts on the sinews of air power by providing raw resources, producing aircraft and training personnel via the British Commonwealth Air Training Plan. In the air, the RCAF would grow from a few thousand souls in 1939 to become the fourth largest Allied air force in 1944. Canadian airmen and airwomen would

serve throughout the world, building a record second to none. These achievements, both national and personal, should be celebrated.

Whether it is an article on the formation of the Canadian Aviation Corps, our first military air "unit," or a ceremony placing a plaque at the site of a Royal Flying Corps (Canada) training field, the scope of possible activity is virtually endless. They could focus on an individual or a squadron (most of our current crop of 400-series squadrons were formed overseas during the Second World War); indeed, I would be hard-pressed to think of a better reason for a reunion. Finally, they could also embrace communities and industries that played a large role in creating and sustaining the RCAF.

With this in mind, perhaps it is time for the RCAF to commence thinking about what it intends to do. Be they large or small, there is no doubt that commemorative events will take place, probably as part of a national campaign. However, a proactive approach would not only ensure that we celebrate our history and heritage but also permit the RCAF to make a meaningful contribution to the development of national plans. And, to highlight the importance of these events—especially for those 75th anniversary celebrations, it will be the last time that we can expect a significant number of Second World War veterans to be present.

Let's give it some thought, shall we.

Sic Itur Ad Astra

Major William March, CD, MA
Senior Editor

Abbreviation

RCAF Royal Canadian Air Force

LETTERS TO THE EDITOR

Dear Sir,

I am writing in response to a book review in *The Royal Canadian Air Force Journal*, Fall 2012, Vol. 1, No. 4. The review was on the book *Gilles Lamontagne: Sur tous les fronts*, and in the article, the author states there were only two Ministers of National Defence with Royal Canadian Air Force (RCAF) experience: James Armstrong Richardson (Minister of Defence, 1972–1976) and Gilles Lamontagne (Minister of Defence, 1980–1983). There was another, not listed in the article. The Honourable Erik Nielson, Conservative Deputy Prime Minister, was appointed Minister of National Defence on the 27th of February 1985, after the resignation of Robert Coates, and held the post until the 29th of June 1986. His parliamentary biography states his military service was as a pilot in the RCAF from 1939 to 1945.

Thank you,

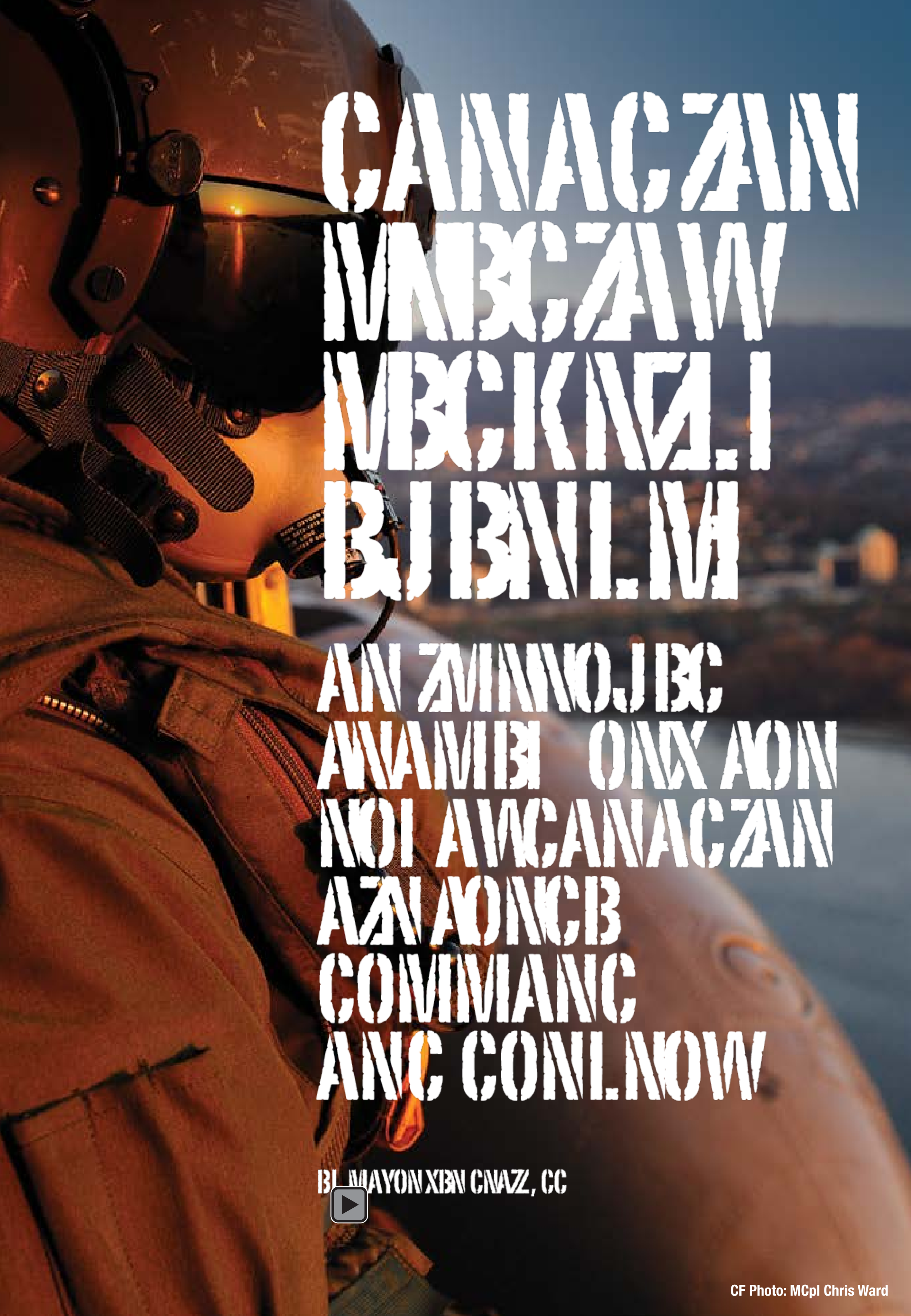
Alan McDonald
Sergeant (Retired)

Mr. McDonald:

Thank you for your keen observation—there were indeed three Ministers of National Defence (MND) with RCAF experience. Erik Hersholt Nielsen was MND during the period you noted until replaced by Perrin Beatty. He was awarded a Distinguished Flying Cross (DFC) while serving as a pilot with 101 Squadron of the Royal Air Force. This squadron was engaged in radio countermeasures, whereby they would participate in bombing raids with special equipment and operators (German-speaking) on-board to listen to, and learn from, enemy radio traffic. After the war, Nielsen served in the RCAF as a legal officer from 1946 to 1951.

Cheers,

Bill



CANACAN MBCAW MBCKAG.I BJBNLM

AN ZMNNOJBC ANAMBI ONX AON NOI AWCANACAN AZNAONCB COMMANC ANC CONLNOW

BL MAYON XBN CNAZ, CC

CF Photo: MCpl Chris Ward

INTRODUCTION

The 2010 Vancouver Winter Olympic and Paralympic Games (Operation [OP] PODIUM) and the 2010 G8/G20 Summits (OP CADENCE) showcased the ability of the Royal Canadian Air Force (RCAF) to successfully integrate unique air power capabilities with both domestic and international partners during high-profile Canadian special security events (CSSEs).[1] RCAF personnel should be justifiably proud of their collective efforts supporting the varied security objectives of the Royal Canadian Mounted Police (RCMP) in challenging maritime, land and airspace environments. Nevertheless, as the Canadian Forces (CF) will undoubtedly continue to be called upon to support CSSEs, we need to look critically at how the RCAF was organized during recent special security events, such as OP PODIUM and OP CADENCE, to determine if there is a better means to deliver air power in support of law enforcement mandates. This is an especially important issue as Canada will likely host future G8 leaders' summits, summits of the Francophonie, North American leaders' summits and Asia-Pacific Economic Cooperation forums. In two years time, we are hosting the Toronto 2015 Pan American / Parapan American Games.

RECENT CANADIAN SPECIAL SECURITY EVENT FORCE STRUCTURES

During OP PODIUM, RCAF elements were organized under two separate lines of command—Joint Task Force Games (JTFG) Air Component Command (ACC) and North American Aerospace Defence Command (NORAD). The JTFG air component was assigned maritime surveillance, land surveillance, air mobility, search and rescue as well as logistics support mission sets; whereas, NORAD was assigned aerospace warning and control mission sets. This division of responsibilities essentially meant that the RCAF was split along two separate and distinct reporting chains, although both forces operated in the same joint operations area (JOA). The JTFG ACC operated from the RCMP integrated security unit (ISU) located in Richmond, British Columbia, exercising operational control of CH124 Sea King, CH146 Griffon, CC138 Twin Otter, CP140 Aurora and CH149 Cormorant aircraft. The ACC was responsible to Commander JTFG who in turn reported to Commander Canada Command. Commander Canadian NORAD Region (CANR) operated from the combined air operations centre (CAOC) located in Winnipeg, Manitoba, exercising operational control of CF188 Hornet, C130 Hercules, C150 Polaris tanker aircraft and ground-based radar units. Commander CANR, using his combined force air component commander (CFACC) responsibilities, in turn reported to Commander NORAD. If we add the Canadian Special Operations Forces Command (CANSOFCOM) aviation units that reported directly to Canada Command, there were three lines of command ultimately responsible to the Chief of the Defence Staff (CDS).

The RCAF organizational structure during OP CADENCE mirrored OP PODIUM except that the joint task force (JTF) air component functions were assigned to a CFACC forward, operating from the RCMP ISU located in Barrie, Ontario. Directly supporting the JTF commander, the CFACC forward was responsible for coordinating CH146 Griffon helicopters supporting internationally protected persons (IPP) movement and CP140 Aurora aircraft conducting intelligence, surveillance and reconnaissance missions. CANR responsibilities were retained by the Winnipeg-based CFACC executing operational control of CF188 Hornet, CH124 Sea King and ground-based radar units supporting the aerospace warning and control mission sets. Again, the JTF commander reported to Commander Canada Command; whereas, Commander CANR reported to Commander NORAD. As with OP PODIUM, during OP CADENCE,

RCAF resources were divided along two separate lines of command, each with their own distinct reporting chain.

The division of Air Force command and control between Commander NORAD and Commander Canada Command during OP PODIUM appeared inefficient and unnecessarily onerous. There were, in effect, two commanders running two separate lines of air power operations, each with complementary mission sets and both in support of RCMP security objectives. Close coordination between the two commands throughout the planning, deployment, execution and redeployment phases was a necessity for overall operational success. The two air force commands shared vital logistical support. This was a challenge for the air component A4 support organization, which needed to separate ACC support requirements from CANR support requirements; in many cases, ACC and CANR requirements overlapped. To confuse matters further, the JTFG ACC and CANR shared limited CH146 Griffon resources requiring aircrews to be prepared to conduct RCMP surveillance and movement tasks (a JTFG ACC responsibility) and low-speed air intercept tasks (a CANR responsibility). This convoluted command and control organization was confusing to not only those within the RCAF but, just as importantly, also the CF land, maritime and support elements. This organizational structure was even more puzzling to the other government department (OGD) agencies involved in security planning; they were bewildered by the requirement to contact two separate segments of the RCAF, depending on the type of mission set involved. This separation of responsibilities became a source of frustration for the OGDs as the RCAF planning effort appeared disjointed and lacked synchronization. It became readily apparent over the course of a two-year planning period that the RCAF could have taken steps to support our security partners with an organizational structure that is logically consistent with our own doctrine and designed to effectively complement the RCMP and other agencies involved in planning and executing a complex domestic security operation.

LESSONS IDENTIFIED FROM PREVIOUS CANADIAN SPECIAL SECURITY EVENTS

The uncoordinated and confusing CF command and control approach to supporting domestic security events has been a recurrent theme in CSSE post-deployment reports. Following the 2007 North American Leaders' Summit (OP LOBOS) held in Montebello, Quebec, after-action observations noted the lack of strategic direction in the aerospace realm as a potential source of friction between Canada Command and NORAD. To address these concerns, in 2008 the Canadian Forces Aerospace Warfare Centre (CFAWC) was directed to convene a working group involving the RCMP, Canada Command and the 1 Canadian Air Division Headquarters CFACC to resolve command and control issues. The working group was tasked to develop a framework for domestic airspace defence and security in the context of a special security event.[2] The result of these deliberations was a draft framework that attempted to distinguish the defence of Canada mission (a CF responsibility) from domestic airspace security (an RCMP responsibility) by explicitly defining specific mission sets. The proposed framework espoused a command and control arrangement that separated air power along three lines of command—NORAD, Canada Command and CANSOFCOM. The draft framework still required the RCMP and OGDs to liaise with two separate organizations (NORAD and Canada Command), leaving the RCAF open to criticism that it lacked unity of effort and unity of command in planning an operation limited in time and space. Unfortunately, the draft framework was never ratified, as it would have laid the foundation for subsequent refinement following the OP PODIUM and OP CADENCE experiences.

The OP PODIUM JTFG post-operation report identified the lack of defined command and control relationships among JTFG, CANR and CANSOFCOM as an area for concern and much needed improvement.[3] The report indicated that the OGD security and consequence management partners found the numerous CF commands difficult to comprehend and work with in building their own plans. Despite the lack of a defined command and control relationship among CF entities, coordination and liaison necessarily occurred at the staff level. It was not an ideal situation to leave our collective success subject to the willingness of the various staffs to cooperate with one another. Command relationships and responsibilities must be clearly defined and agreed upon at the highest levels rather than left open to interpretation and subjective application by planning officers. The JTFG report further described challenges between JTFG and CANR in developing synchronized plans, identifying firm support requirements and providing standardized administrative policies. During OP PODIUM these issues became a source of frustration for all planning staffs. JTFG was ultimately responsible for providing logistic, real-property management and communication and information systems (CIS) support to CANR operational deployment requirements, yet JTFG was unable to influence these decisions to effectively harmonize CANR actions with the other JTF component command planning activities. In short, the concept of the RCAF operating multiple lines of command in a shared JOA, but responsive to separate commanders, was seen as inefficient and lacking synchronization.

Following OP PODIUM and OP CADENCE, Canada Command issued a CSSE lessons learned staff action directive that collected observations and provided recommendations for improvement.[4] Command and control in both operations was viewed as an area for improvement, citing the establishment of multiple supported commanders as an issue that led to potentially unclear command relationships. The command relationship between NORAD and Canada Command defined one as the supported commander for their particular mission and the other as the supporting commander. Unfortunately, these terms, and their accompanying responsibilities, were not clearly articulated in planning guidance documents, leaving interpretation and resulting planning requirements subject to the willingness of the staffs involved to cooperate. The concept of supported commanders is generally considered a working relationship, rather than a reporting one; although, this too is open for debate. Specific observations from the staff action directive include: insufficient guidance in the initiating directive detailing the roles and responsibilities of the commanders during each phase of the operation; lack of "strategic consistency" between Canada Command and NORAD; and Canada Command had responsibility, without the corresponding authority, for budgets and support activities that in some cases were in response to other command requirements. An example of a lack in strategic consistency between commands during OP PODIUM occurred in the transition phase between the Olympic and Paralympic Games. At the conclusion of the Olympics, JTFG resources were asked to adopt a reduced level of effort and readiness posture in response to the lower threat level identified by the RCMP for the Paralympics. CANR, on the other hand, elected to maintain a heightened alert for a period of time into the Paralympics phase, once again confusing our OGD security partners, as it reflected two commands working under two different operating assumptions yet supporting the same law enforcement authority.

To address deficiencies in command and control relationships, the Canada Command lessons learned directive recommended that the principle of multiple supported


CF Photo: MCpl Chris Ward

commanders be enshrined in doctrine with clearly delineated authorities and responsibilities. Formalizing the supported/supporting commander relationship in doctrine is a good first step, but it does not go far enough in addressing concerns regarding limited RCAF capabilities reporting to multiple commands. The supported command relationship becomes even more blurred when we consider that respective planning activities must be closely coordinated and involve the sharing of aircraft and aircrews for certain tasks. Nor does this recommendation adequately respond to criticism that security partners find the RCAF organizational structure difficult to comprehend and, indeed, a challenge to effectively synchronize with in satisfying their own planning requirements. Interestingly, in 2009 a Tri-Command Study involving NORAD, United States Northern Command (USNORTHCOM) and Canada Command was established to investigate the future roles, missions and relationships for the commands. An initial product of this study concluded that the 2007 North American Leaders' Summit (OP LOBOS) command authorities were not sufficiently clear and that "the assignment of command authorities by the CDS for Vancouver 2010 and 2010 G8 does not imply that two supported commanders will be the preferred command relationship in the future."[5]

CANADIAN FORCES AEROSPACE DOCTRINE

A guiding concept in military command and control is the principle of *unity of command*, commonly understood to mean that a single commander is appointed for each operation.[6] This commander has the authority to plan and direct operations and is held responsible for an operation's success or failure. As already stated, recent CSSEs strayed from this principle by assigning separate and distinct mission sets to the JTF commander and the NORAD commander. In the case of OP PODIUM, the JTFG ACC was left in the unenviable position of acting as a conduit between NORAD/CANR and JTFG to ensure that both staffs were aware of each other's planning activities and concerns. From an inward-looking CF perspective, we appeared to adhere to the *unity of command* principle; although, this was less than obvious to our security partners. In this regard, the

RCMP raised an interesting observation during the design of their Olympic Theatre Command Centre and Summits Unified Command Centre. Air Force planners stated a requirement for three work stations in the RCMP command centres: one for the JTF air component, one for CANR and one for NORAD. It was unclear to RCMP planners why the RCAF required separate stations for the CANR and NORAD functions when they were simply described as being necessary for liaison activities between the RCMP. Surely CANR, through the Winnipeg-based CFACC, could have facilitated the informational and liaison linkages between CANR and NORAD. It would be interesting to note whether a United States special security event would see the Continental NORAD and NORAD differentiation in an American law enforcement operations centre. Unity of command was difficult to achieve in the planning and execution phases for JTFG ACC and CANR, as they reported to two different commanders.

CF aerospace doctrine offers several important factors to consider when organizing air power. The fundamental tenet of aerospace power is *centralized control* which "ensures the most efficient use of limited aerospace assets, and permits one commander to confirm all of the requirements and then assign or reassign resources to specific missions, based on changing circumstances and priorities."[7] Centralized control assigns a single aerospace commander the responsibility for the planning, direction, prioritization, allocation, synchronization, integration and deconfliction of all aerospace assets. The reasons for centralized control are readily apparent, have evolved from past experience and remain relevant in a domestic operation context. First, in most cases the aircraft available for an operation are relatively limited in number—demand traditionally outweighs availability. Second, aircraft characteristics of speed, range and flexibility allow air power resources to be retasked from mission to mission across the entire JOA and at short notice, thus enhancing unity of effort. And third, advances in communications technology and situational awareness tools allow air power to be centrally controlled in real-time through an air operations centre.[8] Despite the recognition of centralized control as a fundamental tenet to air power success, in recent CSSE operations the RCAF deviated from doctrine and separated limited resources along two or even three lines of control. This has likely been done to satisfy the standing headquarters—NORAD and Canada Command (now Canadian Joint Operations Command [CJOC]). Interestingly, past expeditionary operations, such as OP MOBILE (Libya 2011), retained centralized control by a single air commander as an important factor when organizing air power (less organic rotary wing assets that are traditionally assigned to land and maritime component commanders).

CF aerospace command and control doctrine is generally focussed on expeditionary operations and offers little clear guidance with respect to domestic operations. *Canadian Forces Aerospace Command Doctrine* (Command is one of the six Air Force functions: Command, Sense, Act, Shield, Sustain and Generate) discusses domestic operations only briefly under a "chain of command" sub-heading.[9] This publication indicates that the ACC will exercise operational control of all assigned CF aerospace forces in support of the JTF commander but then states that Commander CANR will exercise operational control over allocated forces for air defence in the region on behalf of Commander NORAD. Again, in a CSSE context the outcome of this guidance is multiple commanders operating limited air resources in a constricted JOA, voiding the tenet of centralized control. The challenge in a CSSE is to develop an organizational construct that leverages and integrates the expertise of NORAD with the JTF to attain unity of command and centralized control.

PROPOSED RCAF CSSE COMMAND AND CONTROL FRAMEWORK

The means to address CF command and control shortcomings during a CSSE lies in achieving unity of command and centralized control. This is logically accomplished by assigning all RCAF assets, regardless of assigned mission set, to one commander. And the commander best situated to exercise overall command in the JOA is the commander with multi-environment responsibilities, namely the JTF commander. This is generally the type of force structure developed for expeditionary operations and should be considered the norm for domestic operations. One entire mission set should not be separate and distinct from the JTF simply because its supporting force structure formally exists prior to the establishment of the CSSE. Under a single commander construct, all RCAF resources would be delegated to the JTF ACC. CANR assets necessary to support the RCMP in their law enforcement mandate would be tasked by the CDS through Commander CJOC to the assigned JTF commander. As an aside, the same approach could be taken in the United States whereby Continental NORAD Region assets could be similarly assigned to a USNORTHCOM-mandated JTF supporting a special security event. In the Canadian context, select elements from CANR may be double-tasked to support the JTF commander within the defined JOA and to support the NORAD commander outside the JOA. The Canadian Air Defence Sector at North Bay is one such example of a resource that could support both the JTF and CANR. Under this proposed construct, the CANR forces would understand clearly who they are supporting depending on the location of the perceived threat, and the RCAF would speak with a unified and coherent voice when working with OGD security partners. The liaison linkages and modified reporting relationships between CJOC and NORAD would be an internal CF matter, rather than a point of distraction for our OGD partners.

There is no arguing that NORAD has been an enduring and highly successful defence agreement between two nations with shared interests concerning the defence of North America. However, it should be noted that up until the September 11, 2001, attacks, NORAD had an exclusively outward focus on the airspace approaches to North America, rather than an inward focus on domestic airspace. It was only after 9/11 that NORAD assumed responsibility for enforcing temporary airspace restrictions for special security events.[10] During a CSSE, CF support is normally assigned under the auspices of *National Defence Act*, Article 273.6(2) which authorizes "the Canadian Forces to provide assistance in respect of any law enforcement matter." And herein lies a key point of debate between NORAD and a JTF supporting a law enforcement agency—the overlapping jurisdictions between defence (military) and law enforcement (police) mandates. Although a civilian aircraft can be of legitimate interest to both the military and law authorities, it must be recognized that an airborne threat is not necessarily an armed attack. And if this is the case, the police of jurisdiction should be taking the lead in prosecuting the event as the NORAD Agreement does not assign NORAD the task of enforcing domestic criminal law.[11] Under the terms of the NORAD Agreement and its terms of reference, the tasks assigned to NORAD include aerospace warning, aerospace control and maritime warning. In the security realm, NORAD should ensure its defence mission complements the security objectives of the civil authorities. The challenge for Canadian law enforcement authorities is that they do not yet have the means to intercept potential airborne threats; thus, they are forced to rely on the resources available through NORAD. Assigning all air power resources to the JTF ACC would ensure that the appropriate law enforcement agencies are fully involved in the development of the decision processes that would cause an air contact to be engaged.

The assignment of all aerospace resources to the JTF will permit the RCAF to speak with a unified voice when planning and executing operations with the other component commanders and security partners. This construct would also allow the JTF to remain fully apprised as events unfold in the aerospace realm; this is important given that the JTF is most likely to be tasked with supporting the consequence management phase of an interdiction after surveillance and interdiction resources have terminated engagement activities. The end result in establishing a single air power command and control construct is one commander responsible for all air movements within the CSSE JOA, regardless of their assigned role. The RCAF should be developing senior officers with the requisite knowledge and skills to effectively plan, lead and coordinate air operations across the broad spectrum of air power. There is no reason to exclude a maritime navigator or tactical aviation pilot from a leadership position in an air component that is responsible for aerospace warning and control, much as a fighter pilot and aerospace controller can lead an air component that is charged with maritime surveillance and IPP movements. Interestingly, a 2007 report validating the transformed CF command structure stated that "to achieve the intent of having a single commander in place for the entire AOR [area of operations], such a transfer of command of CANR to Commander Canada Command should be pursued, absent of any objection from NORAD."[12]

To support the proposal of unifying JTF and CANR resources under one umbrella, it is necessary that initiating directives clearly identify a single ACC responsible for all air operations in the CSSE JOA. The NORAD terms of reference do not appear to preclude the CDS from tasking NORAD to assign necessary forces to the CJOC during a CSSE. With the establishment of a single ACC reporting to the JTF, the RCAF can then exercise command and control through one of two means: either use the CFACC in Winnipeg or designate a JTF ACC. If the intention is that the CFACC will retain national ACC functions, then the CFACC should report to the JTF commander to ensure effective synchronization of effort with the JTF headquarters as well as the maritime, land and support element commands. This can best be accomplished by deploying an air component coordination element (ACCE) with delegated authority to recommend courses of actions, conduct liaison and planning activities as well as ensure that assigned aerospace forces are employed effectively. This organizational structure is suited to a CSSE of short duration and limited scope.

On the other hand, a large-scale CSSE that employs forces for a lengthy period can best be supported by a dedicated ACC reporting to the JTF commander. A CSSE that requires considerable lead planning and synchronization of effort with the RCMP and security partner OGDs requires a fully empowered and focussed planning team. A dedicated air component will be able to effectively exercise control over all air resources in the JOA. This will facilitate important relationship building among security partners, which is an essential element during any domestic operation, especially one in which CF resources are in support of law enforcement agencies. Working relationships based on trust and a full appreciation of each agency's respective concerns can best be achieved by collocating the planning teams in the lead up to an operation. This will also facilitate integration and a shared understanding of the varied roles and responsibilities of the participating OGDs during the employment phase of an operation. An air component commander separate from the Winnipeg-based CFACC should be considered the normal organizational structure for a large-scale CSSE.

SUMMARY

A recurring theme in CSSE after-action reporting is the need to clarify the command and control relationship between NORAD and Canada Command (now CJOC). There are no easy solutions, and attempts to clarify the relationship (such as the draft "Strategic Framework for Domestic Airspace Defence and Security," produced by CFAWC) have not been ratified. Indeed, it is likely they didn't go far enough in addressing the concerns of our OGD security partners. If we take a step back and ask ourselves how we would organize the ideal JTF to support the RCMP in securing a CSSE, we most likely wouldn't create a NORAD-like headquarters separate from other air force missions and component commanders. There is no questioning NORAD's success in providing aerospace warning and control, and this is not an endorsement of the dissolution of this important headquarters. This paper simply proposes a temporary organizational structure for a CSSE that strives to achieve unity of command and centralized control by assigning NORAD responsibilities, and accompanying resources, limited in time and space under the operational control of the JTF commander. This temporary structure would facilitate synchronized planning among RCAF units and with our external security partners. It would also allow for a distinction between support to a defence of Canada mission and a policing security mission, recognizing that CF contributions to a CSSE are in support of a law enforcement mandate. Ongoing CF transformational realignments involving the recently created CJOC, the ongoing Tri-Command Study and the upcoming Toronto 2015 Pan American / Parapan American Games should be viewed as opportunities to address clearly identified shortcomings in RCAF command and control during recent CSSEs.

ABBREVIATIONS

ACC	air component command
CANR	Canadian NORAD Region
CANSOFCOM	Canadian Special Operations Forces Command
CDS	Chief of Defence Staff
CF	Canadian Forces
CFACC	combined force air component commander
CFAWC	Canadian Forces Aerospace Warfare Centre
CJOC	Canadian Joint Operations Command
CSSE	Canadian special security event
IPP	internationally protected persons
ISU	integrated security unit
JOA	joint operations area
JTF	joint task force
JTFG	Joint Task Force Games
NORAD	North American Aerospace Defence Command
OGD	other government department
OP	operation
RCAF	Royal Canadian Air Force
RCMP	Royal Canadian Mounted Police
USNORTHCOM	United States Northern Command

Major Ken Craig was the OP PODIUM Joint Task Force Games air component lead planning officer from June 2008 to January 2010. During OP PODIUM and Op CADENCE he was employed as a commander in the RCMP Air Security Operations Coordination Centre. Major Craig is currently an Air Reservist at Joint Task Force Pacific Headquarters.

NOTES

1. A Canadian special security event is defined as "an event of national significance that requires extraordinary measures to ensure security." Examples include international summits, sporting events and conferences involving internationally protected persons. The United States equivalent is "national special security event (NSSE)." See the glossary in Canada, Department of National Defence, B-GJ-005-302/FP-001, Canadian Forces Joint Publication CFJP 3-2, *Domestic Operations* (Ottawa: Department of National Defence, November 2011).

2. Commanding Officer, Canadian Forces Aerospace Warfare Centre to Commander, 1 Canadian Air Division, "National Special Security Events (NSSE) Framework for Domestic Airspace Defence and Security," April 11, 2008, http://17wing.winnipeg.mil.ca:1400/1cad/FilesO/DMCS-10228.pdf (accessed February 7, 2013).

3. Joint Task Force Games Headquarters, "Joint Task Force Games Post-Operation Report – OP PODIUM," (August 19, 2010).

4. Canada Command, "Canadian Special Security Event (CSSE) Lessons Learned Staff Action Directive," Annex A to 6397-09900-02-147938 (Canada Com LL), (January 31, 2011).

5. Canada and United States, "Framework for Enhanced Military Cooperation among North American Aerospace Defense Command, United States Northern Command, and Canada Command," (September 2009), 12, www.northcom.mil/News/Signed%20Framework%20Sep%2009.pdf (accessed February 7, 2013).

6. Canada, Department of National Defence, B-GA-400-000/FP-000, *Canadian Forces Aerospace Doctrine*, 2nd ed. (Winnipeg: Royal Canadian Air Force, December 2010), 54.

7. Ibid., 28.

8. Allan English and Colonel John Westrop (Retired), *Canadian Air Force Leadership and Command: The Human Dimension of Expeditionary Air Force Operations* (Trenton, ON: Department of National Defence, 2007), 148.

9. Canada, Department of National Defence, B-GA-401-000/FP-001, *Canadian Forces Aerospace Command Doctrine* (Winnipeg: Royal Canadian Air Force, March 2012).

10. Lieutenant-General Tom Lawson with Captain Michael Sawler, "NORAD in 2012 – Ever Evolving, Forever Relevant," *Canadian Military Journal* 12, no. 3 (Summer 2012): 5–17, http://www.journal.dnd.ca/vol12/no3/index-eng.asp (accessed February 7, 2013).

11. Canada and United States, "Agreement Between the Government of Canada and the Government of United States of America on the North American Aerospace Defense Command," (April 28, 2006), http://www.treaty-accord.gc.ca/text-texte.aspx?id=105060 (accessed February 7, 2013).

12. Lieutenant-General R. R. Crabbe, Vice-Admiral L. G. Mason and Lieutenant-General F. R. Sutherland, "A Report on the Validation of the Transformed Canadian Forces Command Structure," (31 January 2007), http://dmcs-ops.ottawa-hull.mil.ca/DMCS-STR/FilesO/DMCS19507.PDF (accessed February 7, 2013).

CF Photo: MCpl Andrew Collins

UNSHAKEABLE FAITH: THE FLAWED COMMAND OF BOMBER HARRIS

BY MAJOR LYNNE CHALOUX, CD

INTRODUCTION

This article focuses on Air Chief Marshal Sir Arthur Harris' wartime command of the Royal Air Force's (RAF) Bomber Command from 1942–1945. This analysis utilizes Dr. Ross Pigeau and Carol McCann's model to evaluate the dimensions relating to Harris' competency, authority and responsibility (CAR) and to assess the overall balance and effectiveness of Harris' command. The CAR model allows for the necessary depth of analysis into Harris' abilities, responsibilities, beliefs, actions and reactions over a specific timeframe and is, therefore, deemed most suitable to dissect pertinent aspects of this complex and controversial commander.

This article illustrates that Harris, although highly skilled in many areas and having demonstrated impressive successes at the helm of Bomber Command, had a singular and seemingly intractable approach to war—to obliterate Germany's war production capacity by area bombing its cities. This inflexible approach inhibited his ability to see the bigger picture with any measure of objectivity and was the Achilles heel of his leadership, limiting his command capability, resulting in an abuse of his authority and, ultimately, having a detrimental effect on the Allied offensive. His unshakeable faith became a measure of "obstinacy and dogmatism … [that] prevent[ed] Harris from being called a truly great commander."[1]

BACKGROUND

The Battle of Britain denied Germany the air superiority required for a land invasion of England in World War II, so Hitler changed tactics in September 1940. The Luftwaffe engaged in night bombing raids on British cities, known as the Blitz, which killed 40,000 Britons and rendered 750,000 homeless by the time it ended in May 1941. Despite the Blitz' onslaught, "British morale failed to buckle; rather, it hardened … . [Hitler] left a

United Kingdom that was physically scarred but morally and psychologically strengthened … and determined to give it back to the Germans."[2]

Notwithstanding these intentions, the first years of the war did not yield successful results for Bomber Command. In August 1941 (six months before Harris took command), a report to Prime Minister Winston Churchill's War Cabinet criticized Bomber Command's performance, stating that only one-third of bomber sorties produced attacks coming within five miles [8 kilometres] of their target, while many bombers were simply dropping their bombs in the open countryside.[3] Furthermore, only two of every three bombers dropped their loads within 75 square miles [194 square kilometres] of their target.[4]

As precision bombing appeared to be failing, the Air Ministry changed its policy on 14 February 1942, abandoning it in favour of bombing "focused on the morale of the enemy civilian population and in particular the industrial workers."[5] This new policy of area bombing aimed to destroy Germany's ability to wage war by systematically decimating its cities, where war potential was concentrated. There was no better person to implement this policy than Harris, who took over as commander-in-chief of Bomber Command a week later.[6]

> [Harris] was the living embodiment of the "bomber dream," the theory that bombing could win wars without the need for land offensives and perhaps, by taking wars off the battlefields and into the homes of the civilian population, make war itself impossible.[7]

COMPETENCY

Pigeau and McCann define competency as a four-pronged dimension, encompassing physical, emotional, intellectual and interpersonal aspects. Physical competency encompasses "physical strength, sophisticated sensory motor skills, good health, agility and endurance."[8] As Harris did not engage in actual flying operations, his physical strength and motor skills were not required to the same degree as a line pilot. He did suffer from a chronic and untreated stomach ulcer,[9] but this did not seem to affect his ability to withstand the exigencies of his duties.

EMOTIONAL COMPETENCY

Emotional competency relates to stability, "resilience, hardiness and the ability to cope under stress."[10] By all accounts, Harris possessed these qualities in spades. He "was sombre in spirit, single-minded, dogged, determined, and … thick-skinned, all qualities he needed at Bomber Command"[11] and in the face of significant pressures on multiple fronts.

Harris' responsibilities were daunting. "Perhaps no airman had ever been given a more difficult job: to create from scarce resources a bomber force that would be the one sure means of taking the war directly to Nazi Germany."[12] The stakes were high. As Prime Minister Churchill wrote to Lord Beaverbrook, the Minister of Aircraft Production, during the Battle of Britain:

> When I look round to see how we can win the war, I see that there is only one sure path … [a] devastating, exterminating attack by very heavy bombers from this country upon the Nazi homeland. We must be able to overwhelm them by this means, without which I do not see a way through.[13]

Despite the formidable pressure of being responsible for the one weapon deemed capable (before 1944) of bringing the war to Germany itself[14] (but which had demonstrated sorely disappointing results to date), Harris never wavered in his belief, enthusiasm or commitment to destroy Germany by industrial bombing.

On an emotional level, Harris' steadfastness could not have been easy to uphold. Despite his enduring affection, respect and concern for the welfare of the crews under his command, Harris nonetheless exposed them daily to "a danger which at times was so great that scarcely one man in three could expect to survive his tour of 30 operations."[15] Harris never shirked from this responsibility and saw it as being his alone, and although he worked diligently to ensure his men were not put at risk unnecessarily,[16] he rationalized the heavy and regular casualties as being necessary for the greater good.[17]

In the face of moral questions surrounding the bombing of innocent civilians, Harris was unremorseful. He compared it to World War I and rationalized it as better than the Flanders killing fields and no different than starving Germans to death during the naval blockade.[18] "Harris was … ruthless, but ruthlessness was necessary in order to prosecute the war."[19]

The inter-service rivalries and competing demands for resources that characterized Harris' tenure meant he was constantly engaged in a fight—not only to get more resources for his command but to ensure they were not poached by the other services. Naturally combative, "he took up these challenges with relish."[20]

Harris was under considerable personal financial stress during the war[21] and was simultaneously raising a young child born at the outbreak of war when Harris was 47. He upheld his family responsibilities, and his daughter attested that he was a "wonderful father with a great sense of humour and sense of fun … [who] almost always seemed to have time for me."[22]

A man of lesser resilience and hardiness would surely not have fared so well in the face of such intense daily pressures, hardships and challenges that confronted Harris during his tenure at the helm of Bomber Command.

INTELLECTUAL COMPETENCY

Pigeau and McCann describe intellectual competency as:

> critical for planning missions, monitoring the situation, using reasoning, making inferences, visualizing the problem space, assessing risks and making judgements. … [S]ince no two missions will ever be the same, intellectual competency must include creativity, flexibility and a willingness to learn.[23]

Harris displayed very high intellectual competency when addressing issues related to his passion for area bombing. He had a profound level of understanding about the bombing business and demonstrated a frank approach to operational problems.[24]

Perceptive and articulate,[25] Harris was clever and creative and also employed skilful problem solving and oratory in convincing superiors of the need for more and better resources for Bomber Command. He produced impressive results. For example, during his tenure, Harris more than doubled his number of squadrons (from 51 to 108) and aircraft, and he decreased their non-operational rate from 27 per cent to less than 1 per cent. At the same time, "[h]is night-fighting fleets overcame poor equipment and training and pioneered such essentials of modern warfare as electronic countermeasures … ."[26]

Another of his successful tactics was recognizing and harnessing the potential of positive public relations. Prior to Harris taking over in 1942, Bomber Command had "claimed to be the war-winning arm but had so far failed to produce much evidence to support that assertion" resulting in pressure that "the RAF should abandon its attempt at making a strategic impact on the war and revert to being a tactical force [strictly in support of the Navy and Army]."[27] Bomber Command was also subject to political criticism.

Within weeks of Harris assuming command in 1942, Sir Stafford Cripps made a speech in the House of Commons that seemed to put the future of strategic bombing into doubt. Harris, therefore, devised plans to quell his critics and convince politicians of the importance of area bombing and of the true potential of overwhelming airpower. His experimental raids on Lübeck, Augsburg and Rostock in the spring of 1942 proved that his preferred method of area bombing at night was the only feasible method of attack and that it was highly effective. Later that spring, he devised a clever plan that essentially amounted to an exercise in propaganda, whereby an overwhelming demonstration of effectiveness would silence naysayers and gain public and political support.[28] He conceived and managed to cobble together a series of 1000-bomber raids, beginning with Cologne in May 1942. At that time, the highest *monthly* average of aircraft and crews available for operations in Bomber Command was 373. It was a remarkable achievement, in which Harris mustered every conceivable resource and used them in an "as yet unheard of concentration of force."[29]

"WHEN HARRIS FINALLY MOLDED BOMBER COMMAND INTO AN EFFICIENT ORGANIZATION FOR MASSED NIGHT BOMBER RAIDS, HE WANTED TO USE HIS CREWS FOR NOTHING ELSE."

The effect was a public relations bonanza, a reprieve from political sniping, support for more resources for Bomber Command, and a much-needed morale boost for his airmen and the British public at large.[30] This plan and his ability to pull together the near impossible to attain his higher-level objectives demonstrate his adept assessment of the situation, political shrewdness, advanced planning skills and a willingness to take risks to ultimately achieve great effect and advance his cause. As stated by John Terraine, a renowned historian, "Harris' calm and deliberate decision to stake his whole force and its future on that night showed the true quality of command."[31] However, it soon became apparent that Harris' superior vision was severely constrained.

"When Harris finally molded Bomber Command into an efficient organization for massed night bomber raids, he wanted to use his crews for nothing else."[32] His intellectual competency was hampered considerably by his single-minded pursuit of area bombing. He could not—or would not—see the forest through the trees.

That very single-mindedness which was to prove such an asset in pulling his Command together and focusing it on its task also did not permit him to develop the broadness of vision to see the other side of the coin.[33]

He was "utterly convinced that a concentration of force over a selected range of industrial cities would break German morale and fatally damage the enemy's war-making capacity."[34] He believed area bombing was the *only* way to deal the decisive blow to Germany, and this led to serious lapses in strategic judgement.

Harris claimed Army Cooperation Command was a "gross misuse of the RAF," and he refused to consider their requirements. Furthermore, he felt that Coastal Command was an "obstacle to victory" and fought against giving them any long-range aircraft for submarine hunting.[35] In particular, the latter viewpoint demonstrated seriously flawed strategic thinking. German U-boats were winning the Battle of the Atlantic in 1942/43, and "the next step towards winning the war—or avoiding defeat—was beating the U-boat

menace in the North Atlantic."[36] Without Allied success, "the Combined Bomber Offensive was not going to happen, and neither was re-invasion of the continent."[37] Harris' firm belief, however, was that with provision of adequate resources, "he could smash Germany from the air—which would make a seaborne invasion unnecessary."[38]

Remaining fully committed to area bombing, Harris did not believe in so-called "panacea targets"—precision bombing targets aimed at critical vulnerabilities in Germany's ability to wage war, which were selected on the advice of intelligence and industrial research experts. In late 1944, the British Air Staff and the Allied high command wanted him to join a combined attack on German oil supplies and communications to limit the German forces' ability to manoeuvre and prevent Germany from continuing the war.[39] He eventually had to be strong-armed by his boss, Air Chief Marshal Charles Portal, into finally cooperating, although the extent of this cooperation is debatable.[40] "Harris had other ideas about the best use for Bomber Command. . . . His single-mindedness not only bedevilled Allied strategic planning, but also frustrated and alienated colleagues … ."[41] Harris also strongly "opposed the diversion of airpower to support the Normandy invasion, downplayed the need to bomb the German

RAF NIGHT ATTACK

V-2 missile sites,"[42] and, increasingly, resented suggestions that Bomber Command should be used for anything but area bombing of cities.[43]

In short, Harris saw everything except area bombing as a diversion; however, these "diversions" were what the war was really all about. Although area bombing was indeed the only means available at the beginning of the war, this was certainly no longer the case by 1944. Harris, however, "delayed switching to selective targeting after Bomber Command had developed the capability."[44] Instead of seeing the war effort as a joint utilization of resources, he viewed it as a competition between services.

Harris held on to his narrow view ferociously. He "made a habit of seeing only one side of a question and then exaggerating it. He had a tendency to confuse advice with interference, criticism with sabotage and evidence with propaganda."[45] Such a narrow and intractable approach to war inhibited his ability to see the bigger picture objectively, collaborate with the other services and voluntarily use his formidable resources where they would have the greatest effect toward winning the war or averting defeat.

Although a brilliant tactical- and operational-level commander, Harris' unwillingness or inability to grasp the strategic picture points to a marked limitation of his intellectual competency as a higher-level commander, who would be expected to maintain the flexibility of mind to offer creative solutions in the face of the war's changing landscape.

INTERPERSONAL COMPETENCY

Social skills are the basis for interpersonal competency, which "is essential for interacting effectively with one's subordinates, peers, superiors … and other government organizations. … [They include the] attributes of trust, respect, perceptiveness and empathy that promote effective teamwork."[46] Harris was a difficult man. Social skills and diplomacy were not his forte. He was described as brusque, opinionated and outspoken;[47] aggressive, blunt and, sometimes, extremely rude.[48] He was "incapable of deploying guile, diplomacy, or charm as weapons in his armory."[49] He had "a reputation for being prickly and did not suffer fools gladly—irrespective of their seniority."[50]

Harris was a stern wartime commander whose feelings of intense rivalry and distrust of the Army and Navy caused consistent antagonism toward them.[51] He showed contempt toward Air Ministry officers, and his relations with them were distrustful and extremely strained,[52] with exchanges characterized as "often acerbic."[53] As well, Harris didn't trust intelligence experts and discounted information that contradicted his expectations. Although generally wary of all civilian advisors, he was particularly contemptuous of the Ministry of Economic Warfare (MEW), whom he accused of being "amateurish, ignorant and irresponsible."[54] By the end of 1943, Harris would not even consider any targets suggested by MEW. This had serious consequences for British strategy in 1944, when MEW advocated oil and communications targets, key weaknesses of Germany's war effort.[55] Clearly, Harris was not focused on interpersonal relations, and his obstinacy and inflexibility were not conducive to the sort of teamwork necessary in such complex operations.

All that said, Harris made good use of relationships he had managed to build over his career. He was a "convivial host at home and canvassed unceasingly for Bomber Command in the process."[56] He also leveraged his personal power with Churchill to great effect. As such, it appears the interpersonal skills he did possess were utilized for Bomber Command's gain.

OVERALL COMPETENCY ASSESSEMENT

Harris' extremely high emotional competency cannot make up for his lack of intellectual competency *as a strategic*

commander. Regardless of his high intellectual competency as an *operational commander*, "the hallmark of the great senior commander is the ability to grasp the big strategic picture, and Harris certainly failed in this respect."[57] Coupled with his difficult personality, obstinacy and general lack of interpersonal skills that negatively affected most of his working relationships, Harris' competency is judged as low-medium.

AUTHORITY

Authority refers to command's domain of influence and is the degree and scope of a commander's power and the resources available for enacting their will. There are two types of authority: legal (which is assigned) and personal (which is achieved). Legal authority is formalized power and officially assigns commanders the resources and personnel to accomplish the mission. Personal authority is tacit, given informally and earned over time based on reputation, experience and character. It is tied to professional competence, ethics, values and courage, and it serves to motivate others.[58]

As the Commander-in-Chief of RAF Bomber Command from February 1942 until the end of the European war in 1945, with responsibility for its resources and personnel, Harris clearly had appropriate legal authority by virtue of his position. As well, by all accounts, Harris had exceptional personal authority with those under his command. When he took over in February 1942, "a fresh air of optimism swept through the squadrons of Bomber Command." He arrived with "a reputation for getting things done, a leader."[59]

As their commander-in-chief, Harris was revered by his men. They knew he had their interests at heart, despite the fact he never went out of his way to court popularity and they rarely saw him at their stations. "By some mysterious process, he knew the crews and they knew him—a curious example of the link that a strong commander can forge with his subordinates."[60] "No one doubted that he was a master of his trade and had been so since the first years of the RAF's existence." Furthermore, the crews of Bomber Command "were, and remain, Harris's men, and the judgement of his subordinates and contemporaries [was] that he was a fine man and an inspiring leader … ."[61] Harris also had very high personal authority with his superiors, particularly in the first years of his tenure.[62]

> As a war leader, Churchill supported Arthur Harris, finding him a kindred spirit, a man who would not "flag or fail," someone who would fight the war to the finish, however hard the road to victory, however high the cost.[63]

However, as the war progressed, Harris' personal authority with his colleagues and superiors began to wane. By 1944, technological improvements and more reliable intelligence meant that Bomber Command was capable of identifying and hitting selective targets with the potential to cripple Germany. However, he remained stubbornly committed to area bombing and continued to choose industrial city targets to an overwhelming degree, despite the new policy prioritizing precision targets, like oil. His unwillingness to conciliate, despite prods and orders from the Air Ministry, alienated superiors and compromised his reputation with his colleagues.[64]

AUTHORITY ASSESSMENT

Despite his failings, Harris had built up so much personal authority with his airmen and with the public at large that Air Chief Marshal Charles Portal could not fire him without public backlash and/or a huge drop in Bomber Command morale.[65] This essentially enabled Harris to wage his own personal war to a certain degree, allowing him more power than his position should have allowed. As a result, his overall authority is judged as high.

RESPONSIBILITY

Responsibility "addresses the degree to which an individual accepts the legal and moral liability commensurate with command" and has two components: extrinsic and intrinsic. Extrinsic responsibility is the degree to which an individual feels accountable—both up to superiors and down to subordinates.[66] There is no doubt Harris felt completely accountable toward his airmen. He fully accepted the responsibility for the missions assigned to them and personally selected their targets.[67] He was respectful of their courage and efforts, stating in *Bomber Offensive*: "There is no parallel in warfare to such courage and determination in the face of danger over so prolonged a period."[68] In a final act of loyalty, Harris declined (out of protest) his own individual honours after the war, because his crews had been denied the recognition he believed they deserved, including a Bomber Command campaign medal.[69]

Harris' feelings of accountability toward his superiors in his chain of command were altogether different. He regularly dismissed or seriously delayed his obligations to comply with their orders and did virtually as he wanted—i.e., area bombing, regardless of assigned directives and pressure from superiors to concede. For example, he dismissed intelligence reports, selectively interpreting the joint June 1943 Pointblank directive that prioritized targets aimed at crippling the German war industry,[70] and then repeatedly ignored attempts by the British Air Staff in late 1943 to persuade him to follow his assigned priorities.[71]

Of particular note was Harris' outright refusal to attack ball bearing factories, which experts correctly predicted to be absolutely vital to Germany's war industry.[72] German Minister of Armaments Albert Speer was terrified at the prospect of sustained attacks on ball bearing plants, which he believed would slow or even halt the growth of industrial production, leading to Germany's defeat.[73] Yet regardless of orders, expert advice and sustained prodding, Harris refused to concede and continued to bomb cities, first and foremost.

In a series of heated written exchanges with Portal, over Harris' unwillingness to cooperate in bombing (prioritized) oil targets, Harris was argumentative, unapologetic and insubordinate as he virtually disobeyed Portal's orders.[74] He eventually acquiesced to a certain degree, increasing attacks on oil targets from 6 per cent in October 1944 to more than 24 per cent the following month. It has been estimated that had Harris complied with just one or two more attacks on oil targets per month, it "might have made a discernible difference to the German war effort and inhibited, if not precluded, the Ardennes Offensive in December 1944."[75]

January 1945 represented the peak of Bomber Command's contribution to the oil campaign, with 30 per cent of their bombs hitting oil targets and 40 per cent hitting cities.[76] In his continued exchanges with Portal over his lack of commitment to assigned priorities, Harris was unrepentent and unrelenting, threatening to resign if Portal was not prepared to accept continued area bombing over the next three months. Portal backed down. However, had Portal actually relieved Harris of command, some historians estimate:

> City bombing might have ended or at least been sharply reduced, and airplanes could have been redirected toward key oil and transportation targets. Tens of thousands of civilians would not have lost their lives, more than a dozen cities would have been spared, Germany might have capitulated earlier, and thousands of Allied lives might have been saved.[77]

According to Pigeau and McCann, "[c]ommanders must be held accountable for their creative actions … in a manner consistent with the intent of the commander."[78] In Harris' case, he took the courage of his convictions too far and remained unwilling to

dispense his considerable power in accordance with commander's intent (assigned directives), which he dismissed, ignored or, at best, selectively interpreted on multiple occasions beginning in mid-1943—thereby displaying low extrinsic responsibility toward his RAF supervisors.

Intrinsic responsibility is the degree of self-generated obligation a person feels toward the military mission—the amount of resolve demonstrated, ownership taken and commitment expressed.[79] There is absolutely no question of Harris' deep and enduring commitment to the Bomber Command mission, specifically to area bombing.

> We are going to scourge the Third Reich from end to end. We are bombing Germany city by city and ever more terribly in order to make it impossible for her to go on with the war. That is our object, and we shall pursue it relentlessly.[80]

Harris' staunch resolve and steadfast determination—some might call it obsession—were incontestable. However, this extremely high intrinsic responsibility was directed toward getting "his" mission accomplished and employing only his methods, and this proved to be his biggest failure. He lost focus of the larger picture, which in the end had a detrimental effect on the war effort. It also turns out that Harris's adherence to area bombing was not particularly effective. After the war, reports and surveys generally indicated that area bombing was inefficient, failed to weaken German morale or cause a noticeable decline in worker efficiency.[81]

RESPONSIBILITY ASSESSMENT

There is a complete dichotomy between Harris' high extrinsic responsibility toward his subordinates and low extrinsic responsibility toward his superiors. Coupled with a high intrinsic responsibility toward his area-bombing mission, but a compromised intrinsic responsibility toward the larger war mission, his overall responsibility is judged as medium.

CONCLUSION

Using Pigeau and McCann's model, Harris' high authority and medium level of responsibility, that was coupled with a chain of command that failed to keep him in check, ultimately led to a situation bordering on dangerous command or abuse of authority. Harris' overall competence was largely inhibited by his stubbornness, lack of diplomacy, lack of flexibility and unwillingness to exercise creative thought by considering the strategic picture. This is not reflective of the balanced command aspired to by the CAR model.

Nonetheless, this is an accurate portrayal of a talented yet flawed commander, whose considerable power exceeded his abilities to wield it most effectively. The complex interrelationships and dynamic interaction between Harris' strengths and weaknesses are depicted in Figure 1, which represents the nexus of Sir Arthur Harris' command capabilities, and it serves to illustrate how these competencies interrelate. The key nodes (or central competencies from which all others stem) are strategic intelligence / flexibility of vision, interpersonal competency, tactical/operational intelligence and emotional competency.

> There can be little doubt … that Harris served the interests of Bomber Command to the best of his ability and was primarily responsible for putting in place those factors which made Bomber Command a decisive weapon. By the force of his convictions, he inspired confidence not only in his aircrews at a time when they were suffering devastating losses, but he also gave a very necessary fillip to the nation's morale at a point in the war when Britain had suffered more defeats than victories.[82]

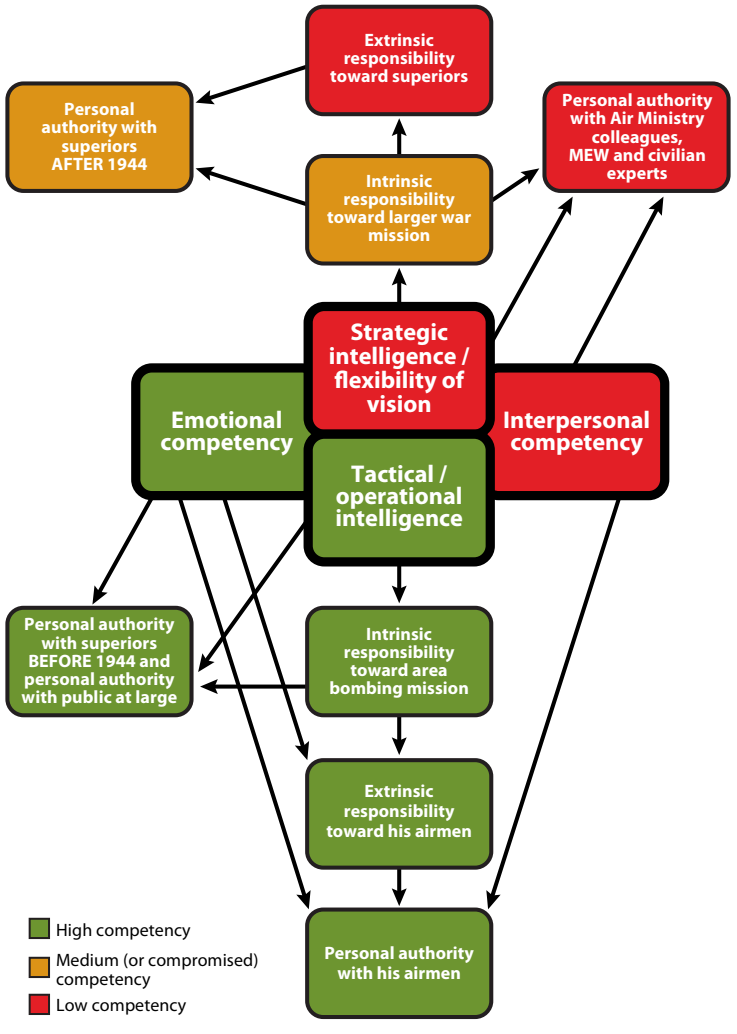


Figure 1. Air Chief Marshal Arthur Harris' nexus of competencies

However, Harris had always said the only thing that mattered was the success of the bomber offensive, and he had an intractable bias toward area bombing. This narrow mind-set promoted his disregard for other theatres of war and strategies, and it fuelled arguments over issued directives.[83]

Ironically, the stubbornness and determination that so appealed to the Air Staff when they needed a strong leader eventually constrained the effectiveness of Bomber Command and had a detrimental effect on the Allied offensive during the final years of the war. "Whatever Bomber Command accomplished … was compromised by Harris' refusal to give up area bombing."[84]

In the end, it was Harris' unshakeable faith and unwavering commitment to the systematic decimation of German cities that prevented him from thinking and acting strategically. This was his ultimate failing as a higher-level commander.

ABBREVIATIONS

CAR competency, authority and responsibility

MEW Ministry of Economic Warfare

PAO public affairs officer

RAF Royal Air Force

RCAF Royal Canadian Air Force

Major Lynne Chaloux is a Royal Canadian Air Force (RCAF) public affairs officer (PAO). A graduate of Le Collège Militaire Royal de St-Jean, she has served in a variety of public affairs capacities at the wing, operational and strategic levels of the RCAF as well as positions within Assistant Deputy Minister (Public Affairs)'s (ADM[PA]) ministerial communications and national media liaison. She deployed as a PAO to the Canadian Contingent Commander of NATO's Stabilization Force in Bosnia–Herzegovina and, after becoming a reservist in 2006, also served as the PAO to the President of North Atlantic Treaty Organization's Confédération Interallié des Officiers de la Réserve (CIOR). She currently works as the Communications Advisor to the Director General Air Personnel within the Chief of Air Force Staff and is completing the Joint Command and Staff Programme (Distance Learning) at Canadian Forces College.

NOTES

1. Christina Goulter, "Sir Arthur Harris: Different Perspectives" in *The Challenges of High Command: The British Experience*, ed. Gary Sheffield and Geoffrey Till (New York: Palgrave Macmillan, 2003), 127.

2. Randall Hansen, *Fire and Fury: The Allied Bombing of Germany, 1942–1945* (New York: New American Library, 2008), 19.

3. Rebecca Grant, "Bomber Harris," *AIR FORCE Magazine* 88, no. 1 (January 2005): 69, http://www.airforce-magazine.com/MagazineArchive/Documents/2005/January%202005/0105harris.pdf (accessed February 12, 2013).

4. Hansen, 22.

5. Ibid., 31.

6. Ibid., 26.

7. Robin Neillands, *The Bomber War: The Allied Air Offensive against Nazi Germany* (New York: The Overlook Press, 2001), 104.

8. Ross Pigeau and Carol McCann, "Reconceptualizing Command and Control," *Canadian Military Journal* 3, no. 1 (Spring 2002): 58, http://www.journal.forces.gc.ca/vo3/no1/index-eng.asp (accessed February 12, 2013).

9. Neillands, 5.

10. Pigeau and McCann, 58.

11. Tami Davis Biddle, "Bombing by the Square Yard: Sir Arthur Harris at War, 1942–1945," *The International History Review* 21, no. 3 (September 1999): 635.

12. Grant, 68.

13. United States Air Force Association, "Air Power Quotes," United States Air Force Association, http://www.afa.org/quotes/Quotes_81208.pdf (accessed February 12, 2013).

14. Neillands, 399.

15. Sir Arthur Harris, *Bomber Offensive* (Toronto: Stoddart Publishing, 1990), 267.

16. Group Captain Peter W. Gray, review of *Bomber Harris: His Life and Times*, by Henry Probert, *Air Power Review* 4, no. 4 (Winter 2001): 5, http://www.airpowerstudies.co.uk/airpower-review.htm (accessed February 12, 2013).

17. Harris, 269.

18. Ibid., 176–77.

19. Neillands, 398.

20. Ibid., 105.

21. Gray, 5.

22. Jacqueline Assheton, "Sir Arthur Harris: A Personal Note by his Daughter" in *Bomber Offensive* (see note 15), xv.

23. Pigeau and McCann, 58.

24. Goulter, 135.

25. Biddle, 631.

26. Grant, 68.

27. Neillands, 109.

28. Ibid., 108–19.

29. Neillands, 121.

30. Sebastian Cox, "Sir Arthur Harris and the Air Ministry" in *Airpower Leadership Theory and Practice*, ed. Peter W. Gray and Sebastian Cox, (London: The Stationery Office, 2002), 216–17; and Biddle, 636.

31. John Terraine, *The Right of the Line: The Role of the RAF in World War Two* (Hodder & Stoughton, 1985), quoted in Gray, 6.

32. Grant, 71.

33. Cox, 215.

34. Goulter, 131.

35. Ibid., 129, 130.

36. Neillands, 116.

37. Goulter, 131.

38. Neillands, 116–17.

39. Biddle, 626.

40. Ibid., 648–51.

41. Ibid., 626.

42. Grant, 68.

43. Biddle, 640.

44. Ibid., 659.

45. C. Webster and N. Frankland, *The Strategic Air Offensive over Germany, 1939–45* (London, HMSO, 1961): 80, quoted in Goulter, 133–34.

46. Pigeau and McCann, 58.

47. Biddle, 631.

48. Neillands, 105.

49. Sebastian Cox, quoted in Grant, 68.

50. Gray, 6.

51. Biddle, 627, 631, 638.

52. Cox, 217–22.

53. Gray, 6.

54. Biddle, 651.

55. Goulter, 133.

56. Gray, 5.

57. Goulter, 130.

58. Pigeau and McCann, 58–59.

59. Both quotes, Neillands, 105.

60. Ibid., 110.

61. Both quotes, Ibid., 105–6.

62. Cox, 213; and Hansen, 30–31.

63. Neillands, 400.

64. Biddle, 649–51.

65. Goulter, 135; and Biddle, 652.

66. Pigeau and McCann, 59 (including quote).

67. Neillands, 110.

68. Harris, 267.

69. Biddle, 657.

70. Biddle, 640; and Neillands, 200–2.

71. Hansen, 130; and Biddle, 640.

72. Goulter, 133.

73. Hansen, 124–25.

74. Biddle, 663.

75. Ibid., 652–53.

76. Hansen, 244.

77. Ibid., 246.

78. Pigeau and McCann, 57.

79. Ibid., 60.

80. Sir Arthur Harris, quoted in United States Air Force Association.

81. Biddle, 658–60.

82. Goulter, 131.

83. Ibid., 135.

84. Biddle, 661–62.


BOMBER COMMAND
ROYAL AIR FORCE
STRIKE HARD STRIKE SURE

OPERATION AIR BRIDGE:

CANADA'S CONTRIBUTION TO THE SARAJEVO AIRLIFT

BY MATTHEW TRUDGEN, PHD

CF Photo

INTRODUCTION

From July 1992 to January 1996, the Canadian Air Force participated in the United Nations (UN) led airlift of humanitarian aid into the city of Sarajevo, the capital of Bosnia–Herzegovina. During this mission, which was code named Operation AIR BRIDGE, Canadian CC130 Hercules transports carried out 1,806 flights, or chalks, which was more than countries such as Germany and the Netherlands and almost as many as Great Britain.[1] In fact, Canada was the fourth leading contributor to this airlift.[2] However, this achievement has largely been overlooked because Canadian academics and commentators have mostly focused on Canada's ground operations in the former Yugoslavia, particularly the problems that the Canadian Army endured in trying to serve as peacekeepers in a place in which there was no peace to keep.[3] This experience has been further obscured by the various scandals related to the events in Somalia and then later by the narrative of the 1990s being "A Decade of Darkness" for the Canadian Forces (CF).

This article will seek to fill this gap in the historical literature by examining Canada's participation in the Sarajevo airlift. I will first provide some historical background to the breakup of Yugoslavia and the events that led up to the siege of that city. Then, I will examine Canadian operations through the use of a variety of primary sources, including an oral history interview and archival documents.[4] Finally, this article will conclude with a brief examination of what lessons can be learned from this experience.

THE ORIGINS OF THE CONFLICT

It would be cliché to state that the conflict in Yugoslavia during the 1990s was the result of centuries-old hatreds between the various ethnic groups that made up this nation. Indeed, the American scholar Norman Naimark noted that "the notion of a Balkan world of perpetual violence, cultural marginality and 'ancient hatreds' [has] dominated public discourse about the war."[5] Nevertheless, these existing ethnic and religious cleavages—when combined with the severe economic difficulties that Yugoslavia endured in the 1980s and, most importantly, the leadership vacuum at the centre that opened up with the death of Marshal Tito in 1980—created an opening for nationalist demagogues to gain support.[6] The most notable of these figures was Slobodan Milosevic, who emerged as the leader of Serbia in the late 1980s.[7]

Milosevic first came to prominence by trumpeting the rights of the Serbian minority in Kosovo, an autonomous province on Serbian territory, which despite its predominantly Albanian population was regarded as the heartland of Serbia because of the historical importance of the Battle of Kosovo.[8] Over time, he was able to gain support from the Serbian Orthodox Church and many Serbian intellectuals. He then consolidated control in Serbia by eliminating the autonomous status of Kosovo as well as the other autonomous province (Vojvodina) that had been established by Tito in 1974.[9] He was also eventually able to gain control over the Serb-dominated Yugoslav National Army (YNA). Milosevic was, thus, in a position to achieve his goal of a more centralized, Serb-dominated Yugoslavia, which greatly unnerved the other Yugoslav republics, namely Slovenia and Croatia.[10]

Consequently, the situation in Yugoslavia quickly deteriorated, and when the annual rotation of the federal presidency was blocked by Milosevic in May 1991 because it would have meant the replacement of one of his Serb allies with a Croat, Slovenia and Croatia seceded in June of that year.[11] The result was that the YNA intervened in both countries, and while the conflict in Slovenia was brief, significant fighting broke out in Croatia, where the army supported the local Croatian Serb population, which had been previously

armed by the Serb authorities. By the time both sides had agreed to a UN-mandated ceasefire in late November 1991, the Serbs controlled one-third of this country.[12]

Having gained their objectives in Croatia, the Serbs then turned to Bosnia, which also had a sizeable Serb minority. The result was that Bosnia, which was the most ethnically diverse of all the Yugoslav republics, was placed in a very difficult situation.[13] On one hand, if it declared independence, it would face intervention by the YNA forces that were already located on Bosnian soil, but if it remained part of Yugoslavia, it would face domination by Milosevic. Further complicating the situation was that the Bosnian Serbs, under their leader Radovan Karadzic, had already declared four enclaves in Bosnia to be Serbian Autonomous Regions (SARs) and had even established their own parliament.[14] Ultimately, after a referendum that was boycotted by the Bosnian Serb community, the population of Bosnia voted to separate from Yugoslavia on March 1, 1992. Soon after, despite the best efforts of the European Community to broker a peaceful solution to this crisis, the Bosnian Serbs declared the existence of "the Serbian Republic of Bosnia–Herzegovina" and war began. Within six weeks, the Bosnian Serbs—with the support of the new Federal Republic of Yugoslavia (which now consisted of just Serbia and Montenegro) and its army as well as numerous Serb paramilitary groups—had seized 60 per cent of Bosnia.[15] However, they had not been able to seize Sarajevo; instead, the city was besieged and subject to intense bombardment by artillery and mortars.

THE BEGINNING OF THE AIRLIFT

Once Sarajevo had been surrounded, fears quickly emerged about the humanitarian situation in the city, and the international community began to discuss what could be done. While the United Nations Protection Force (UNPROFOR) was headquartered there, it did not yet have a mandate to operate in Sarajevo.[16] Nor was there any interest in the UN or elsewhere in using force to break the siege. Instead, the international community began to consider the option of an airlift. This idea gained further traction when the United States Air Force (USAF) flew in "35 pallets of food rations and 24 pallets of medical supplies and blankets" in April 1992.[17] But it would not be until June 5 that the Sarajevo Airport Agreement was negotiated between UNPROFOR, the Bosnian government and the Bosnian Serb authorities, and even then, it took the symbolic act of France's President François Mitterrand flying into Sarajevo to get this airlift underway.[18] Nonetheless, this humanitarian effort was hampered by a number of flaws with the airport agreement.

These problems existed because of the lack of leverage that the UN had when the agreement was negotiated due to the fact that the Bosnian Serbs not only held the military advantage but also had already been subject to economic sanctions as well as vilification by the international media for their actions in Bosnia.[19] These weaknesses included a clause that allowed the Bosnian Serbs to inspect shipments at the airport to create difficulties with the delivery of aid. Moreover, the agreement contained another problematic clause, Article 8, which stated that "humanitarian aid will be delivered to Sarajevo and beyond, under the supervision of the United Nations, in a non-discriminatory manner and on the sole basis of need."[20] Unfortunately, Article 8 was interpreted in such a way that was reciprocal and proportional rather than impartial, which allowed the Bosnian Serbs to receive much of the aid flown into the city. Indeed, up to 25 per cent of these supplies were allocated to Serb populations in and "beyond" Sarajevo, even if they did not really need it.[21]

Moreover, it should be recognized that the amount of aid that was delivered by the airlift was not sufficient for Sarajevo

to survive.[22] The supplies that Sarajevo relied upon reached the city through a variety of other methods, including through a tunnel under the airport that the UN never officially acknowledged the existence of, through land convoys, and even through food sold by the Serb besiegers.[23] Finally, many scholars have argued that the airlift helped to make the siege more tolerable for the international community, since there was the reality that participation in this humanitarian effort allowed these nations to avoid contributing to an attempt to actually relieve the city.[24] Nonetheless, the airlift was a significant accomplishment for both the Canadian Air Force and the other nations that took part in it, and even strong critics of the airlift, such as Carol Off, praised the efforts of the military personnel who made it work.[25]

Ultimately, the airlift would last three and a half years, which was three times as long as the Berlin airlift, and involved 12,591 flights into Sarajevo.[26] In all, 144,827 metric tons of food and 15,850 metric tons of medicine were flown in, and 1,100 medical patients were evacuated.[27] Having provided an overview of the crisis in Yugoslavia, I will now explore Canadian air operations in greater detail.

THE CANADIAN EXPERIENCE

Canada's contribution to the Sarajevo airlift was one Hercules transport, two flight crews, ground and support personnel as well as a small medical staff.[28] At the beginning of Operation AIR BRIDGE, the Canadians flew out of Zagreb, Croatia, but when an Italian Air Force G222 transport was shot down on September 3, 1992, killing four crewmembers, the Italians withdrew, and the Canadians took over their slot from Ancona, Italy, which was much closer to Sarajevo.[29]

At the peak of this airlift, the Canadians flew three missions a day,[30] and each of these chalks transported 35,000 pounds

CF Photo

[1.6 metric tons] of food and aid.[31] The Canadians also flew passengers in and out of the city. Some of these were journalists and very important persons (VIPs) such as the Bosnian Ambassador to Italy; however, others included Canadian personnel going out on leave as well as medical evacuations (MEDEVACS) of wounded civilians.[32] In fact, the Canadians concluded that the United Nations High Commission for Refugees had become reliant on the "CF for MEDEVAC because of [the] availability and expertise of [the] CF med[ical] team," which was a problem because these MEDEVACS were often complicated by bureaucratic and political factors.[33] Nonetheless, despite these difficulties, the Canadians continued to evacuate civilians throughout the mission. Sometimes these operations were planned, but others took place in response to emergencies such as a major mortar attack on Sarajevo in February 1994.[34]

AT THE PEAK OF THIS AIRLIFT, THE CANADIANS FLEW THREE MISSIONS A DAY, AND EACH OF THESE CHALKS TRANSPORTED 35,000 POUNDS [1.6 METRIC TONS] OF FOOD AND AID.

On these chalks, the Canadians encountered a wide variety of challenges, such as numerous mechanical issues that rendered the aircraft unserviceable. They also faced other problems ranging from the lack of freight at Ancona, to the smuggling of contraband (such as drugs), to issues communicating with Sarajevo, especially in getting good weather reports.[35] In particular, fog was a serious problem, partially because the Canadians were assigned the first chalk of the day. Moreover, because the aircraft were not fired at when they were on the ground, some Sarajevoans would use these times to travel across the runway in order to reach villages on the other side of the airport, even when the aircraft was landing or taking off.[36]

Another serious problem was radar locks on Canadian aircraft. Many of these came from the ground radars of the warring factions, which would expose the Hercules transports to attack from surface-to-air missiles (SAMs); however, some of them came from North Atlantic Treaty Organization (NATO) fighters enforcing the no-fly zone under Operation DENY FLIGHT. The Canadians were particularly annoyed by these friendly lock-ons and filed numerous complaints with NATO about them. For example, in June 1993, they complained that such lock-ons were "very distracting in the high threat area of the Sarajevo terminal area."[37] In addition, the Canadians were hit by ground fire from the warring factions, some of which was due to drunken combatants taking pot shots at the aircraft with small arms.[38] Nonetheless, the Canadian air component was able to overcome all these difficulties.

One thing that the Canadians did was to upgrade their equipment. When they were deployed, they were not prepared for the challenges posed by operating in a war zone, but once it was recognized that lives were in danger, the Canadian Air Force stepped up, and the procurement process was accelerated. This process was helped by the fact that the Air Transport Group (ATG) was a small organization, and it could move quickly to address problems. As a result, the Hercules were re-equipped with Kevlar armour plating and state-of-the-art missile approach and warning systems. In fact, much of this equipment arrived so quickly in Ancona that training had to be done in theatre.[39]

Furthermore, the Canadians could rely on the fact that they were well prepared to

take part in this mission. For instance, only crews that had qualified for tactical airlift were allowed to fly on this operation.[40] In addition, the Canadian personnel were eager to put their training to the test. One example was that in the 15 minutes when the Hercules was on the ground in Ancona between the first and second chalks of the day, the ground crew would refuel and check out the aircraft, fix problems that could be addressed, unload empty pallets[41] and load the cargo for the flight. Even the medical staff would help out by cleaning the windows. The armourers would not only swap out any spent cartridges from the flare dispensers for the missile warning system but also fix the flight crew breakfast, as they had not had a chance to eat. During the interview, Major Bill Lafontaine stated: "I have never seen people work together that closely or service that great at any home base," and the reason was that they were on operations overseas doing something that they had trained for. It is important to remember that the timing of these flights was very critical, as there were only brief windows to land and takeoff at Ancona and Sarajevo, due to the number of aircraft involved in the airlift.[42]

The Canadian personnel also adapted their procedures to deal with the challenges posed by this mission, including altering their checklist to reduce chatter during stressful periods, such as during the approach to the city. Moreover, the Canadians flew using portable oxygen bottles because of a fear that random ground fire would hit the main oxygen tank.[43] The Canadian crews even utilized handheld global positioning system (GPS) units to give them that capability, since their Hercules aircraft did not have a GPS installed on board.[44] It should be noted that not everything the Canadians did was successful. One example was that Fighter Group sent over personnel in an effort to help address some of the problems that the mission faced. However, my interviewee had concluded that they were of limited utility and were eventually withdrawn because of the cost of maintaining these personnel in theatre.[45]

Another advantage was that the Canadians were able to establish a good relationship with the other nations flying out of Ancona, which included the Germans, the British and later the Americans. All these contingents worked together to make the mission work.[46] For instance, in late October 1993, rivets to fix a Canadian Hercules were flown from Frankfurt to Sarajevo by USAF and were then transported to Ancona by the Royal Air Force.[47] There was also one occasion when a Canadian flight engineer helped an American crew change a tire on their aircraft, since the USAF crew did not have a spare tire or a tire change kit and were "unfamiliar with the task."[48]

The most important of these relationships for both the Canadians and the mission as a whole was the one with the British. It became especially close, since they both used a small number of crews, unlike the Americans.[49] The result of this closeness was that the British and Canadians took the lead in deciding how operations out of Ancona would work. This was often done "below the table," but it worked well because the Canadians and British knew each other so well. For example, they developed procedures for flights to continue when visibility was poor.[50] The Canadians were, thus, able to make an important contribution to this humanitarian effort.

THE END OF THE AIRLIFT AND LESSONS LEARNED

Eventually the UN airlift into Sarajevo would come to a close. Major offensives by the armies of Croatia and Bosnia when combined with extensive NATO air strikes—which had been triggered by an exhaustion of patience with the Bosnian Serbs as well as Serbian atrocities such as the massacre at Srebrenica in July 1995 and a mortar attack on a Sarajevo market in late August—had changed the military situation dramatically. The result was a ceasefire in October 1995 and the end of the siege.[51] Operation AIR BRIDGE, therefore, began to be wound down, and there were several days in late 1995 when there were no missions

due to a lack of freight. The last Canadian chalk took place on January 7, 1996.[52]

The Sarajevo airlift was a great feat of logistics. It lasted three times as long as the Berlin airlift and helped the city hold out against the Bosnian Serbs; although in the end, it could not actually lift the siege, which was what was really required. Nonetheless, this reality should not distract from the efforts of the air forces, including the Canadian, which had carried out this mission, as they had been given this task and had to make it work.

Having examined the Canadian experience, one other issue remains: what can be learned? One lesson is the importance of maintaining a high level of training and skill among Canadian Air Force personnel in order to prepare them for whatever challenges they are going to have to face on operations because sometimes these missions can be more difficult than they seem at first glance. Indeed, Lafontaine noted that Operation AIR BRIDGE represented the riskiest flying the CF had done since the Korean War.[53] It should also be emphasized that it was a credit to both the Air Force and the Hercules community that they were able to maintain this level of proficiency at a time of severe financial cutbacks. Another thing that can be taken from this mission was that the procurement system was accelerated so that the Canadian air contingent got the equipment it needed. In fact, this achievement is something that needs to be studied in greater detail because one of the complaints of the mission in Afghanistan was that the procurement system was not responsive enough to requests from the field. This experience further illustrates the importance of establishing good relations with one's partner nations on operations. These relationships not only helped Canadians conduct their own chalks, but they also improved the performance of operations out of Ancona as a whole. These kinds of ties will only become more important in the future due to the drive towards interoperability and burden sharing in alliances such as NATO. Finally, there is one other lesson that I garnered from this research, which is that there is a need to study missions such as Operation AIR BRIDGE in greater detail, not just to learn lessons but to tell the stories of the Canadian Air Force personnel who participated in them. While the Canadian contribution to the Sarajevo airlift was small, Canada still played a major role in this effort, and it should not be forgotten.

ABBREVIATIONS

ATG	Air Transport Group
CF	Canadian Forces
DHH	Directorate of History and Heritage
GPS	global positioning system
MEDEVACS	medical evacuation
NATO	North Atlantic Treaty Organization
SAM	surface-to-air missile
SITREP	situation report
UN	United Nations
UNPROFOR	United Nations Protection Force
USAF	United States Air Force
YNA	Yugoslav National Army

Dr. Matthew Trudgen received his PhD in History from Queen's University in 2010. He was then the R. B. Byers Post-Doctoral Fellow at Centre for Military and Strategic Studies at the University of Calgary. In September 2012, he took up another Post-Doctoral Fellowship at Dartmouth College in New Hampshire.

NOTES

1. United Nations, *The Blue Helmets: A Review of United Nations Peace-keeping* (New York: United Nations Department of Public Information, 1996), 500.

2. Benjamin Zyla, "A Bridge Not Too Far? Canada and European Security, 1989–2001" (PhD thesis, Royal Military College of Canada, 2008), 319.

3. Examples of such works include Donna Winslow, "Canadian Warriors in Peacekeeping," in *Warriors in Peacekeeping: Points of Tension in Complex Cultural Encounters; A Comparative Study Based on Experiences in Bosnia*, ed. Jean Callaghan and Matthia Schönborn (Piscataway, NJ: Transaction Publishers, 2004); Sean M. Maloney and John Llambias, *Chances for Peace: Canadian Soldiers in the Balkans, 1992–1995* (St. Catharines, ON: Vanwell, 2002); Carol Off, *The Ghosts of Medak Pocket: The Story of Canada's Secret War* (Toronto: Random House, 2005); Carol Off, *The Lion, the Fox and the Eagle: A Story of Generals and Justice in Yugoslavia and Rwanda* (Toronto: Vintage Canada, 2001); Lewis MacKenzie, *Peacekeeper: The Road to Sarajevo* (Toronto: Harper Collins, 1994); and Dawn M. Hewitt, *From Ottawa to Sarajevo: Canadian Peacekeepers in the Balkans* (Kingston, ON: Queen's Centre for International Relations, 1998).

4. The primary sources for this project included an interview with Major Bill Lafontaine conducted on August 17, 2011. He served 3 five-week tours as a pilot on this mission, and this interview can be found at the Canadian Forces Aerospace Warfare Centre. I also utilized the situation reports (SITREPS) that were compiled by the mission and sent back to 8 Wing in Trenton between February 1993 and January 1996. They are located at the Directorate of History and Heritage (DHH) in Ottawa. These SITREPS, while being fairly standard in form, varied greatly in detail, as that depended on how thorough the officer writing them was.

5. Norman M. Naimark, "Preface" in *Yugoslavia and Its Historians: Understanding the Balkan Wars of the 1990s*, ed. Norman M. Naimark and Holly Case (Stanford: Stanford University Press, 2003), xv.

6. Josip Broz Tito was the leader of the communist-led partisan movement that opposed the Axis occupation of Yugoslavia during the Second World War. After the end of this conflict, the communists took control of Yugoslavia, and Tito served as this country's president for 37 years until his death in 1980. Sabrina Petra Ramet, *Balkan Babel: The Disintegration of Yugoslavia from the Death of Tito to Ethnic War* (Oxford: Westview Press, 1998), 7.

7. Ibid., 300; In addition to Ramet's work, more detailed examinations of this crisis include Carole Rogel, *The Break-up of Yugoslavia and Its Aftermath* (Westwood, CN: Greenwood Press, 2004); John R. Lampe, *Yugoslavia as History: Twice There Was a Country* (Cambridge: Cambridge University Press, 2000); and David Rieff, *Slaughterhouse: Bosnia and the Failure of the West* (New York: A Touchstone Book, 1996).

8. Rogel, 17. The Battle of Kosovo took place in 1389 and involved the medieval Serbian state versus the Ottoman Turks. While the battle was largely a draw, it seriously weakened Serbian power and led to the end of this Serbian state by 1459. Lampe, 17.

9. Rogel, 17.

10. It should be emphasized that the rise of Croatian nationalism under the Croatia's new president, Frajo Tudjman, had also generated concern in Serbia and among Croatia's Serbian population because of this nationalist government's alleged ties to the Ustasha. The Ustasha was the name for the Croatian fascist movement that controlled the government of the nominally independent Croatian state that the Germans had established after they invaded Yugoslavia

in 1941. In the words of the historian John R. Lampe, the Ustasha had sought to "create an ethnically pure Croatian state from which Serbs, Jews and gypsies would be permanently cleansed." Lampe, 209.

11. After Tito's death in 1980, it had been decided to rotate the federal presidency every year between representatives of the six republics and the two autonomous provinces. Rogel, 22.

12. Ibid., 23.

13. According to the April 1991 census, the breakdown of population by ethnic group was 43.77 per cent Muslims, 31.46 per cent Serbs and 17.34 per cent Croats. Ramet, 244.

14. Rogel, 28–29; and Hewitt, 20.

15. Rogel, 25. The sixth Yugoslav republic, Macedonia, was allowed to secede peacefully in January 1992. Ramet, 230.

16. Hewitt, 32.

17. Daniel Haulman, *The United States Air Force and Humanitarian Airlift Operations 1947–1994* (Washington, DC: Air Force History and Museums Program, 1998), 269–70.

18. Stuart Gordon, "The Anatomy of Conditionality and Linkage: Negotiating for Life," in *Negotiation in International Conflict: Understanding Persuasion*, ed. Deborah Goodwin (London: Frank Cass, 2001), 63; and Tim Ripley, *Conflict in the Balkans 1991–2000* (Oxford: Osprey Publishing Limited, 2001), 11.

19. Gordon, 63.

20. Quoted in Mark Cutts, "The Humanitarian Operation in Bosnia, 1992–95: Dilemmas of Negotiating Humanitarian Access" (Working Paper No. 8, New Issues in Refugee Research, Policy Research Unit, United Nations High Commission for Refugees [UNHCR], 1999), 19, http://www.unhcr.org/3ae6a0c58.pdf (accessed February 12, 2013).

21. Gordon, 65.

22. James Gow, *Triumph of Lack of Will: International Diplomacy and the Yugoslav War* (New York: Columbia University Press, 1997), 109.

23. Peter Andreas, *Blue Helmets and Black Markets: The Business of Survival in the Siege of Sarajevo* (Ithaca, NY: Cornell University Press, 2010), vii, 8.

24. Ibid., 13.

25. Off, *The Lion, the Fox and the Eagle*, 5.

26. United Nations, 500; William T. Y'Blood, "From the Deserts to the Mountains," in *Winged Shield, Winged Sword: A History of the United States Air Force, Volume II, 1950–1997*, ed. Bernard C. Nalty (Washington, DC: Air Force History and Museums Program, 1997), 497; and Ripley, 14.

27. United Nations, 500.

28. The aircraft and flight crews were rotated every five weeks. Lafontaine interview.

29. Ripley, 12–13; United Nations, 500; and Lafontaine interview. Occasionally, the Canadians would also utilize the airport at Split in Croatia. Report from October 1993, 2008/10 UNHCR – Airlift Ancona Sarajevo Airlift, Airlift Sitrep, July to October 1993, File 5689, DHH.

30. There were occasions when the airlift was suspended. One such example was from April to September 1995. United Nations, 500.

31. Lafontaine interview.

32. Report from October 1994, 2008/10 UNHCR – Airlift Ancona Sarajevo Airlift, Airlift SITREP, February–June 1994, File 5691, DHH. When they transported

civilians, the Canadians made sure that an armed military policeman was in the hold for supervision. Lafontaine interview.

33. Report from September 1993, File 5689, DHH; and Report from October 1993, File 5689, DHH.

34. Report from February 1994, 2008/10 UNHCR – Airlift Ancona Sarajevo Airlift, Airlift Sitrep, February–June 1994, File 5691, DHH.

35. Report from April 1994, File 5691, DHH; Lafontaine interview; and Andreas, 46, 55. One SITREP noted that the mission had done a good job of handling the drug issue, although one suspects that given the problems of corruption described in the scholarly literature that these comments represented some wishful thinking. Report from March 1994, File 5691, DHH.

36. Lafontaine interview. They did this to get food and supplies from these villages, which were not cut off by the siege.

37. Report from June 1993, 2008/10 UNHCR – Airlift Ancona Sarajevo Airlift, Airlift SITREP, February–July 1993, File 5688, DHH. Indeed, Lafontaine described it as quite unnerving the first time his Hercules was locked on. Lafontaine interview.

38. The pilots did not know how often their aircraft were under fire from the ground. Lafontaine only learned of this from Royal Canadian Mounted Police personnel who were being brought out of Sarajevo for rest and relaxation. Lafontaine interview.

39. Ibid. For instance, the Canadians had to work out what was the best way to use the flare and chaff system to defend the aircraft against SAMs.

40. This requirement meant that these personnel saw extensive service in this airlift. Lafontaine interview.

41. The Canadians would also fly out empty pallets so they could be reused in the airlift. Lafontaine interview.

42. Ibid. The French ground crew in Sarajevo was equally capable. While the Canadians formally had 10 minutes from landing the aircraft to taxi into the terminal, have their cargo unloaded and to get off the ground, the French personnel got to the point that this could be done in six to seven minutes.

43. Ibid.

44. Ibid. These improvisations were not popular with some personnel with the ATG.

45. Ibid.

46. Ibid. Previously, the Americans had flown their missions out of Frankfurt, Germany.

47. Report from October 1993, File 5689, DHH.

48. Report from February 1995, 2008/10 UNHCR – Airlift Ancona Sarajevo Airlift, Airlift SITREP, January–April 1995, File 5694, DHH.

49. The Americans rotated their crews every week, which meant that the personal relations between their personnel and the Canadians, while good, were not as close as those with the RAF. Lafontaine interview.

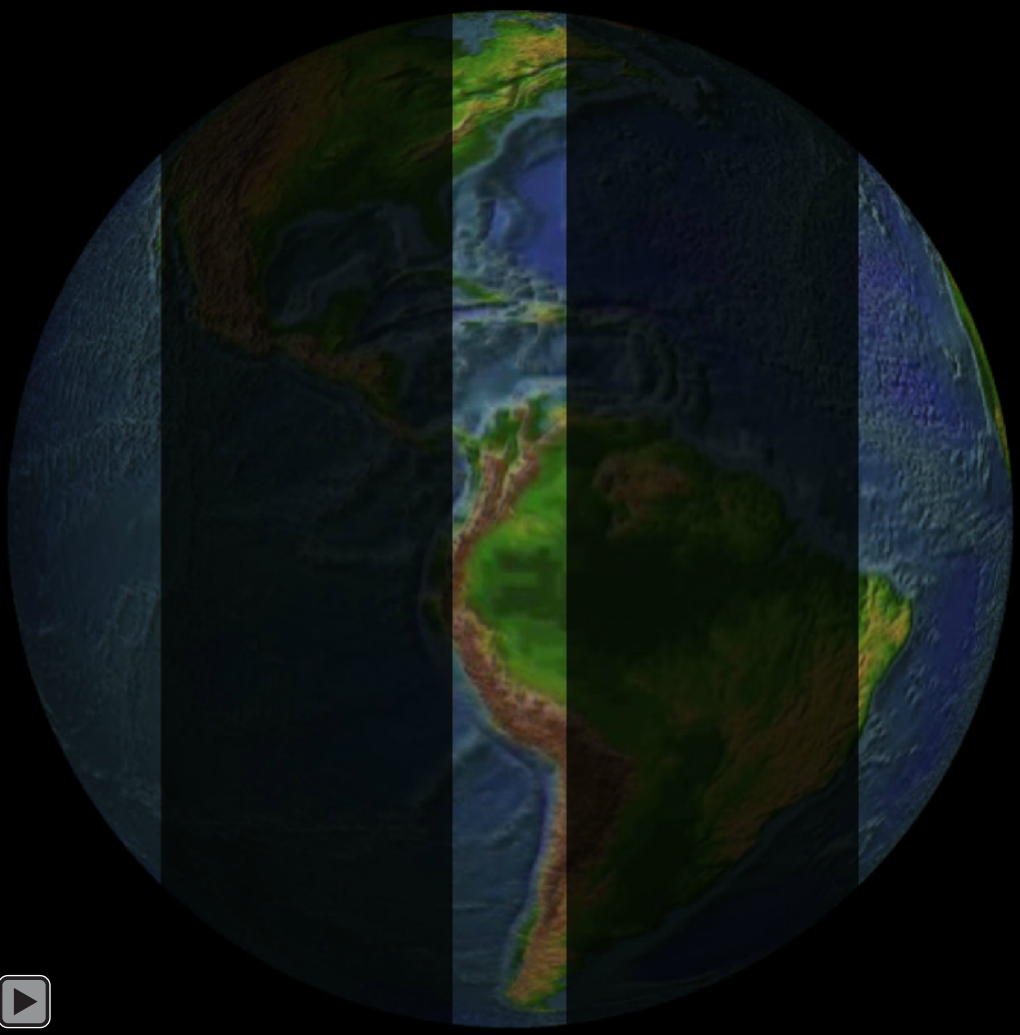
50. Ibid.

51. Andreas, 104–8; and Lampe, 30.

52. Report from November 1995, 2008/10 UNHCR – Airlift Ancona Sarajevo Airlift, Airlift SITREP, September 1995 – January 1996, File 5693, DHH; and Report from January 1996, File 5693, DHH.

53. Lafontaine interview.

WERE THE EVENTS OF SEPTEMBER 11, 2001, A MANIFESTATION OF POLITICAL VIOLENCE GENERATED BY THE PHENOMENON OF GLOBALIZATION?



BY CAPTAIN SAMUEL BOUDREAULT

War is the continuation of politics by other means.[1]

Carl von Clausewitz

INTRODUCTION

The above quotation is still relevant today, maybe more relevant than when it was first published in 1832. Indeed, the world is currently in conflict. The sources and causes of these conflicts are very numerous. But certain countries or interest groups lack the resources or level of organization required to enter into open and direct conflict with another country. These belligerents are increasingly turning to asymmetric warfare. The emergence of transnational violence cannot be denied. Furthermore, globalization is no stranger to war. Some even say that they are inseparable.[2] Various global markets have been integrated, but this process has had consequences. While the purpose of large-scale terrorist attacks such as those of September 11, 2001, is to communicate a message on an international level, the various terrorist acts committed every day throughout the world show a dramatic level of distress and a general malaise. Can it be said that those who have not profited from globalization have become resentful?

In this context, the purpose of this study is to answer the following question: were the events of September 11, 2001, a manifestation of political violence generated by globalization? While it is obvious that the terrorist group behind this event that marked the 21st century hated Americans, we must dig deeper to reach the source of the malaise to properly appreciate how things fell into place to lead to such an event.

HYPOTHESIS

Globalization is not new. For several centuries, nations have tried to expand their reach by finding new markets for their products or securing supplies of raw materials. However, the search for new economic partnerships (at the basic level) has not been without conflict. According to the theories presented by English economist David Ricardo, countries benefit by specializing in a type of trade in which they have a comparative advantage. For this theory to work, countries must practice free trade among each other. These days, this type of trade is rare; because of economic fluctuations, countries generally adopt protectionist policies. These policies are used to protect local producers.

Industrialized countries generally take advantage of developing countries by setting up subsidiary workshops that will produce goods to satisfy local demand and for export. This procedure serves primarily the developed countries, since working conditions in producer countries are often miserable.

For this study, we will start from the hypothesis that globalization is advantageous to only one part of the world, primarily the West and Western Europe, because of unequal economic exchanges. The growth of various types of media also makes communication virtually instantaneous, which contributes to spreading both information and disinformation. It, therefore, becomes easier to manipulate information, which means that nations traditionally left in ignorance are now becoming aware of the inequalities and of their difficult living conditions compared with the rest of the world.

The September 11, 2001, terrorist attacks by members of the al-Qaeda jihadist network had major symbolic business and military targets. For the terrorists, it was a strong message: hurt the Americans at home by striking symbols of their pride. Prior to these terrorist attacks, the tension between the United States and the radical Islamist movement had reached a breaking point. The question will, therefore, consist of verifying whether September 11, 2001, was indeed a

manifestation of political violence generated by globalization.

> *The terrorist claim to be acting on behalf of the poor is a patent falsehood.*[3]
>
> John Paul II

THE NOTION OF TERRORISM

For the majority of North Americans, terrorism is a notion with which we have become familiar following the terrorist attacks of September 11, 2001. We participated in the two World Wars, the Korean War, the Vietnam War and the Gulf War, but the conflicts of the last century always took place in foreign lands. After the attacks against the World Trade Center, the game changed: hostilities had moved to American soil. In the hours following the sadly famous attacks, the whole world learned of the existence of one Osama bin Laden and the terrorist network he led, al-Qaeda. The West was shaken, and the hunt for those responsible began. For Nathalie Cettina, a PhD in public law involved in teaching and research in the legal careers section of the Institut Universitaire de Technologie [University Institute of Technology] in Laon, France, the classic vision of terrorism produced by a small core of individuals within a state against that state's institutions is losing steam. Transnational organizations use an extra-territorial strategy to carry out the strike that will have the most spectacular impact on international public opinion. And this is exactly the "exploit" that al-Qaeda accomplished 11 years ago.

There is no universal definition of the notion of terrorism. It is often a matter of perspective. The relationship between Israel and Palestine is a perfect example. There are international guidelines and principles that allow socio-political violence to be denounced or defined, but the full spectrum of acts of violence to this day has not yet been rigorously analysed and conceptualized. The following section is, therefore, intended as a tentative definition of this notion.

The French *Larousse* dictionary defines terrorism as "all acts of violence (attacks, hostage-taking, etc.) committed by an organization to create a climate of insecurity; to coerce a government; or to satisfy hatred against a community, country or system."[4] (Translation) The September 11, 2001, attacks easily fit this definition. Officially, the perpetrators of these acts belonged to al-Qaeda, which is recognized as a terrorist group by the Government of Canada,[5] the Council of the European Union[6] and the United States Department of State,[7] to name only those few. In part, al-Qaeda's objectives are to unite Muslims against the United States and its allies, overthrow regimes it judges to be non-Islamic and expel Westerners and non-Muslims from Muslim countries.[8]

For countries involved in hunting terrorists, this process can mean deploying military forces in a war zone. However, the examples of Iraq and Afghanistan show that these are not traditional conflicts and that the countries find themselves engaged in an asymmetric war. Since al-Qaeda has no organized armed forces or satisfactory material resources, they have no other choice than to turn to this type of conflict. This operating method is useful to them, since neither the traditional military response nor current law enforcement methods are able to adequately deal with asymmetric conflicts.[9] The cost of this war has been calculated by the Institute for International Studies at Brown University in New York. According to this group of experts made up of economists, anthropologists, lawyers, humanitarian aide organizers and political scientists, the costs of this war were assessed as being reportedly about 4,000 billion dollars and 225,000 human lives.[10] The costs incurred in hunting terrorists are immense. Considering that it all started the day after September 11, 2001, we could say

that the disciples of Osama bin Laden succeeded in inculcating a climate of fear and forcing the West to launch an expensive and endless war.

> *The ruling to kill the Americans and their allies—civilians and military—is an individual duty for every Muslim … .*[11]
>
> Osama bin Laden

Acts that could be described as terrorism are not a recent invention. Resistance to and uprising against a higher authority holding legal power date back to antiquity.[12] Indeed, terrorist attacks have been reported since the first century of the Common Era (CE). For example, the Sicarii, a faction of extremist Jewish dissidents, tried to expel the Romans and their supporters from Judea through assassination. Their political motivation pushed them to continue this practice for 60 years, until the destruction of Jerusalem in 70 CE. The timeless nature of the terrorist undertaking, as well as its use by both state and subversive forces without distinction, makes it difficult to paint an overall picture of this method. However, it is possible to distinguish through history the objectives and methods employed by those who turned to terrorism.[13]

So-called modern terrorism dates back to Maximilien Robespierre, who, following the French Revolution of 1789, began a reign of terror in France. When he was at the head of the Jacobins club, he declared that the revolutionary dictatorship was necessary to defend the revolution because of the threats made by the domestic opposition and the risk of foreign invasion. Under his leadership, thousands of nobles and enemies of the French nation were executed. The guillotine, which was used for public executions, projects a strong image and quickly became a symbol of terror. For Daniel Arasse, the political effectiveness of the guillotine was unquestionable, and the relationship of the guillotine with its victims evoked the image of a surgical operation that the revolutionary government was performing on the body politic to bring about its regeneration. The French Revolution, by introducing a political action based on violence and the use of exceptional measures, established a reign of terror. This was the first expression of what would become known as state terrorism. The Terror that started with the fall of the Girondins, in June 1793; lasted until the fall of Robespierre, on July 27, 1794; was implemented by the Committee of Public Safety; and was supported by the exceptional jurisdiction of the revolutionary court drew its legitimacy from safeguarding the social order the revolutionaries established by using the state's power.[14] Can we then call this real legitimacy? Regardless of the situation, the state always appropriates the use of violence, and its use must be regulated.

"The Terror played a decisive role in this catastrophe that was inflicted on France's public imagination from 1789 to 1795: for two years, the Revolution used the machine in a very mechanical, more specifically machine-like, way. It used the guillotine for political purposes that certainly exceeded the intentions of its original designers."[15] (Translation)

At the precise connection of the individual body and the body politic, the fall of the guillotine blade brought together many thoughts, passing through the medical register to the political domain and to the metaphysical realm.[16] "In the same way that the revolutionary government embodied the will of the people it represented, the guillotine implemented revolutionary law: the people possessed the instrument that proudly represented them in its act of justice."[17] (Translation)

From the Sicarii to the Jacobins, the actions of these radical groups were primarily politically motivated. It is easy to see that, while the operating methods have evolved, the basic motivations for these actions remain practically the same. Certain groups engaging in political struggle against a state, another

nation or an invader, therefore, do not hesitate to use violence and acts of terrorism.

Eco-terrorism, low- or high-tech terrorism, computer terrorism—there are thousands of ways to cause material, human and financial damage. Since the use of gunpowder spread around the world, bombs have been the primary method used by terrorists. What distinguishes so-called modern terrorism from the ancient version is not the use of explosives itself, but rather the surrounding technologies. "The most obvious and important process in the 'modern' age of terror (generally identified as the period from 1968 to the present) has been the development of technology itself."[18] The use of new types of detonators, explosives and triggering devices is constantly evolving, which makes preventing acts of terror more complicated. The example of 20-year old, Ontario resident Zakaria Amara—arrested in 2006 for having ordered three tonnes of fertilizer to use in making explosives—is a typical case showing that the threat is real and omnipresent. In a world of extremely swift travel between cities and countries, potential targets are abundant.

There are many currently active conflicts. It is readily apparent that the conflicts are mostly located in the Middle East and Africa. In the first decade of the 21st century, the Middle East experienced a rate of terrorist acts four times higher than Western Europe on a per-capita basis and ten times higher than Asia, Latin America and Sub-Saharan Africa.[19]

As in the cases of the World Trade Center and the Pentagon, in the United States, al-Qaeda's preferred method is the suicide attack, since it symbolizes the group's tenacity, inspires many young Muslims and contributes to creating more fear and terror than any other type of weapon.[20] This approach differs from others, particularly because of the image it projects. The terrorist is prepared to die for their cause. This type of practice induces fear in the population because the threat is omnipresent and the motivations of these actors are incomprehensible to most people. According to Islam, suicide is forbidden. However, becoming a martyr or killing infidels in battle is not. For al-Qaeda, it is not "profitable" to use the leaders of the movement, and they must continuously seek new "volunteers." Many verses of the Quran incite Muslims to fight to the finish, while others present Islam as a peaceful religion that intends no harm and seeks peace. Religion on its own is, therefore, not the motivation for suicide attacks. However, religion could be a response in cases of alienation. In fact, since most of the Afghan population is illiterate, it is easy for religious and social leaders to influence them. The country that hosted al-Qaeda is, sadly, second-last in terms of literacy, with a rate of only 28.1 percent in 2000.[21] Although there are certain indicators, too many factors must be taken into consideration, and the profile of exactly who commits suicide attacks remains impossible to determine.

GLOBALIZATION AND CAUSES OF TERRORISM

After the end of the cold war, the United States redefined an integrated strategy aimed at allowing it to remain a superpower and to assert its economic interests. Since then, global geopolitics have been dominated by this superpower, the objective of which is to master global capitalism, shape the market to suit it and ensure that globalization is Americanization on all fronts.[22]

Globalization has undeniably become the driving force of many aspects of contemporary society. The opening of borders and free movement of people, goods and capital associated with globalization of all types of trade flows offers a breeding ground for increased international organized crime, which can only feed the practice of terrorism.[23] The various groups around the world that challenge this phenomenon generally use the same arguments, namely globalization results in increased poverty, the growing gap

between rich and poor, and the substitution of perceived global elite values and customs for local ones. However, it is interesting to note that those who oppose globalization are generally among the first to use the technologies that are the very image of globalization. The Internet, cellphones and other sophisticated technologies have allowed antiglobalization protestors to plan, communicate, coordinate, promote and protect their activities, which would have otherwise been impossible for them. Furthermore, a study published by the World Values Survey found obvious links between individual beliefs and the characteristics of societies in which the individuals lived.[24] Professor Ronald Inglehart of the University of Michigan Institute for Social Research analysed the results of this research and was able to demonstrate that economic development eventually reaches a point of diminishing returns in terms of increasing human happiness. This conclusion is major because it explains the change in values and goals of industrialized and advanced societies, which, in turn, contributes to generating anger in other nations that see themselves as victims of these advanced states.

Krug and Reinmoller conclude that globalization is an important determining factor for terrorism. In their study, they build a model to explain that the internationalization of terrorism is a natural response to a global economy. As countries become economically integrated and market-oriented, there is no longer discrimination between what some terrorist groups may consider as good and bad products or investments.[25] This same type of reasoning also applies to military technologies and goods. However, we cannot blindly believe that globalization leads necessarily to terrorism. The popular discourse states that globalization increases the rate of exchange of goods, services, ideas and people and allows cultures to cross borders more easily. Using complex mathematical models that take into account the economic centre of gravity, distance, language barriers, gross national product and gross domestic product, Loayza obtains interesting empirical data and, thus, highlights the three phenomena observed which are of key importance to this study, namely the following:[26]

1. The effects of democracy and globalization on terrorism differ for source and target countries.
2. Terrorism falls with democracy and globalization in the source countries.
3. Terrorism rises with democracy and globalization in the target countries.

> *"We find that the advent of democratic institutions, high income, and more openness in a source country significantly reduce terrorism."*[27]

One of the unintended consequences of globalization is the conflict between it and Islam. The impact of globalization on Muslims living in Western countries is particularly profound but represents, above all, a challenge, since many Muslims are used to traditional values, family and social structure, all of which appear threatened by globalization.[28] This is one of the reasons that explain in particular the desire to go back to the glory days of Islam. Western society extols individualism, while most Arab countries favour community life. Many young Muslims consider Western society to be impersonal, insular and solitary, and they lose their sense of dignity in it.[29] Muslims are also affected by globalization because, according to their beliefs, Islam is the supreme religion that prevails over all others. Unfortunately for them, Islam is in decline. Globalization may be one of the reasons for this cognitive dissonance felt by many Muslims, since it made possible the decline of certain Arab regions, which is, in comparison with others, impossible to ignore.[30] The collateral damage of a conflict within Islam is a direct effect of globalization, which is then transformed into hatred towards Western countries.

Islam, as a religion conscripted to serve a radical ideology, is used to push worldwide terrorist practices intended to both spread Islamic ideology and punish non-Muslims.[31] In his book entitled *The Canons of Jihad*, Jim Lacey, a former American infantry officer who became an analyst for the Institute for Defense Analyses in Alexandria, Virginia, explains that Muslims must go to war only to spread Islam throughout the world. In fact, the Prophet Mohammed specified that jihad must not be used for the purpose of personal gain, oppression or tyranny.[32] Jihad is rationalized by the nature of the message of Islam. For Islam, there are only two societies: Islamic society and *jahili*. Islamic society is one in which people live according to the customs and beliefs of Islam in laws, organizations, morals and behaviour, while *jahili* society does not follow the values, standards, laws or regulations of Islam.[33] By its very nature, Islamic society, therefore, sees itself as the only so-called civilized society. The Arabic term *jihilayyah* is a concept signifying the ignorance of divine guidance or the state in which someone exists without the assistance or help of Allah. It can also be used to describe a person or state that does not follow the way of Islam. For Muslims, it is not possible to mix Islam with *jahili* or *jihilayyah*. The explanation they provide in this regard is that truth is one and cannot be divided. "The mixing and coexistence of truth and falsehood is impossible."[34]

As stated by Cettina, "the disenchantment with the world analysed by Max Weber allows Islamism to establish itself at the heart of Muslim societies. The intrusion into a traditional society of Western techniques as well as political, economic, social and ideological models (industrialization, urbanization, globalization) generates social instability, which leads to exclusion, trauma, growing poverty, loss of meaning and tensions."[35] (Translation)

Terrorist violence is used to resist power and to fight against international pressure. Opposing the "house of Islam" against the outside world, Islamists engage in a *jihad* against foreign oppression, going as far as to refuse any cooperative relationship with a West that is a bearer of corrupting, colonial imperialism.[36]

As a general rule, many people, groups and regimes are angry with Western society and hostile towards the United States for reasons that are fundamentally cultural, socio-economic and political.[37] Anti-Americanism, while it can be analysed in different ways, can be grouped into three main categories: the United States' (US) support for the state of Israel, oil-related issues as well as the relative and calculated assistance the Americans provide to Third World development, and in particular to Arab countries.

"Arabs and Muslims are specifically angry at the U.S. government for its unconditional and excessive support of Israel."[38] The facts that the Americans give without limit and that Israel can do practically whatever it wants with no conditions have caused a great deal of irritation to the leaders and socio-political groups of the Arab world. There are many works and publications that try to analyse this assistance, and the conclusions are as wide-ranging as they are far-fetched. However, the tensions this assistance causes are very real. The city of Jerusalem is considered a holy place by Christians, Muslims and Jews, three of the most important religions. For some Muslims, it is an affront for infidels to occupy a holy place. For other, more radical Arabs, all non-Muslims should be expelled from Muslim countries. The United States' extravagant support (financial, military and diplomatic) for Israel certainly generates tension towards these two countries. In fact, since the creation of the state of Israel in 1948, the Americans have committed to supporting Israel so that Israelis could feel safe, by providing them with military equipment but also by supporting them diplomatically and financially. The Arab League, except for Egypt, still does not recognize Israel's legitimacy as a state.

For the Arab League, this situation is an indirect confrontation that humiliates them and undermines their credibility.

The Americans are often perceived, rightly or wrongly, as wanting to dominate the world. Their foreign policies are often decided without consultation, consideration or coordination with the leaders of other nations. Their trade policy "does not just respond to US commercial and strategic interests, it also conveys their values, in particular those of freedom, democracy and individual responsibility."[39] (Translation) The Americans have always been very aggressive in their negotiations on international markets and in using all legal resources available. Globalization, once supported by the government, had no further obstacles. The point of no return may have been crossed in recent decades. It is no longer possible to simply state that trade agreements contribute to the general well-being and to think that one can take it on faith that one can obtain public support for economic internationalism when, in fact, workers and public opinion are well aware that what may be good for businesses and the global economy is not necessarily good for them.[40] It is easy to imagine the effects in developing countries when the social fabric of a superpower is in the process of crumbling. This is, among other reasons, because mastery of globalization has slipped through the Americans' fingers and because a part of the world developed such hate for them.

Oil is the only resource the Muslim countries have that is coveted by the rest of the world.[41] The members of the Organization of the Petroleum Exporting Countries (OPEC) supply approximately 40 percent of world oil output and have control over more than three quarters of the world's crude oil reserves. The organization is under the complete control of Muslim countries, which became involved in OPEC at a time when they considered it appropriate to use oil as a weapon to defend Muslims. Oil currently remains the primary source of energy. The internal combustion engine has still not been replaced, and black gold is becoming more of an issue than ever with the industrialization of some countries, including China, India, Brazil, etc.

TERRORIST VIOLENCE IS USED TO RESIST POWER AND TO FIGHT AGAINST INTERNATIONAL PRESSURE. OPPOSING THE "HOUSE OF ISLAM" AGAINST THE OUTSIDE WORLD, ISLAMISTS ENGAGE IN A *JIHAD* AGAINST FOREIGN OPPRESSION, GOING AS FAR AS TO REFUSE ANY COOPERATIVE RELATIONSHIP WITH A WEST THAT IS A BEARER OF CORRUPTING, COLONIAL IMPERIALISM.

Oil imports never stopped growing (with the exception of the early 1980s) and have proven to be an obvious source of conflict. Considering that the world's oil reserves are primarily located in Arab lands, the games of alliances between the Americans and their economic partners cause tension within OPEC and the Arab League. Figure 1 shows net American oil imports since 1975. It is ironic to see the trend of this graph given that, in 1979, US President Jimmy Carter declared, "I am tonight setting a clear goal for the energy policy of the United States. Beginning this moment, this nation will never use more foreign oil than we did in 1977—never."[42] After ties had been broken off between Iran and the United States, the latter had to seek new business partners and strengthen relations with others. The support they then offered to certain nations fuels some Muslims' anger and contributes to anti-American hatred.

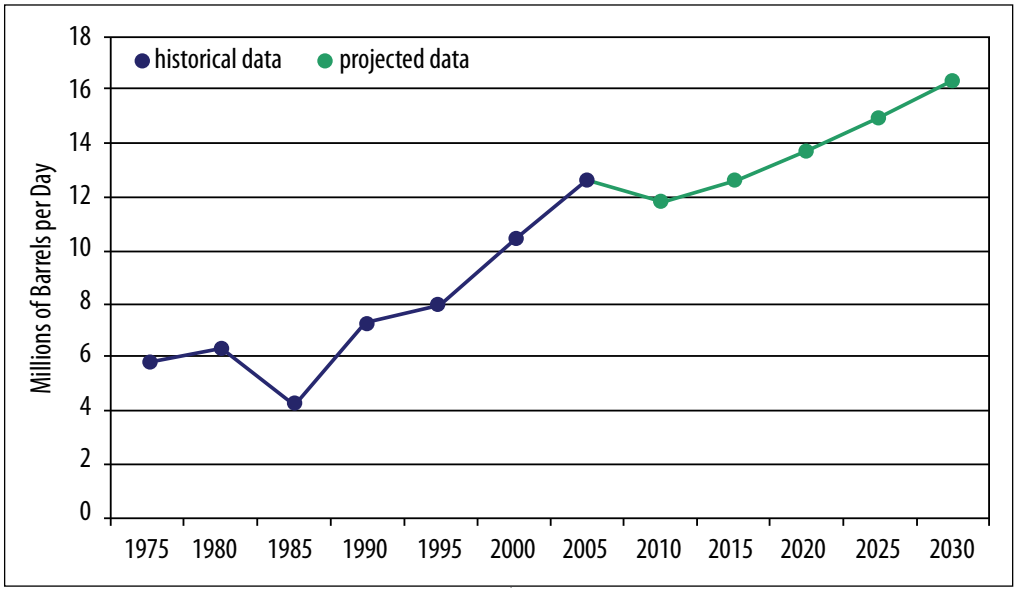


Figure 1. Net US oil imports 1975–2030[43]

For example, the US helped Yemen's government to fight al-Qaeda. In the 2001 report of the Presidential Study Group entitled *Navigating through Turbulence: America and the Middle East in a New Century*, "it is suggested that a better mutual understanding should be encouraged between the United States and so-called pro-Western Arab countries in order to preserve the 'vital interests' of the United States. On this point, it is remarkable that, under the heading of strengthening cooperation in the field of 'energy, military and economic security', the report emphasizes primarily the strengthening of the American military presence in certain Arab countries at the risk of causing those countries serious internal problems."[44] (Translation)

Al-Qaeda's decision to expand its operations onto the world stage reflects a change in strategy. During 1995/1996, following heated internal discussions, al-Qaeda decided to no longer attack its near enemies, the Arab regimes seen as apostates, but instead its far enemies, the Western infidel nations, but above all the United States.[45] Vengeance is explicitly mentioned in many of their communiqués claiming responsibility for terrorism as the primary rationale for the attacks committed.[46] Revenge, therefore, appears to be the main driver of terrorism and its current persistence. Through their cultures, the aggressor and the victim, both supporters of the heavy-handed use of force, indiscriminately apply the rule of "an eye for an eye, a tooth for a tooth."[47]

REVIEW OF THE HYPOTHESIS

At the beginning of this study, the hypothesis was stated that the events of September 11, 2001, were a manifestation of political violence generated by globalization. The starting hypothesis claimed that industrialized and technologically advanced countries were taking advantage of less-developed countries, in particular by setting up subsidiaries and workshops in which employees have access to neither the salary nor the benefits of workers in Western society. Since globalization favours only one part of the world, the other part revolted, and the attacks in New York and Washington were the result.

PIPELINES IN THE BURGAN OIL FIELD IN KUWAIT

After analysing various arguments, we are in a better position to state that this hypothesis is true, but incomplete. In fact, globalization was one of a group of factors that led to the attacks. The export of American ideology in addition to the proliferation of communication media and information technology contributed to the general hatred of the Middle East towards the United States. The Afghan *jihad* became radicalized more quickly because of the decline and stagnation of the Middle East, combined with the humiliation of the Islamic world.

British historian Tony Judt said that "inequality has a corrosive effect. It rots societies from the inside. It illustrates and amplifies the loss of social cohesion; it is the disease of our age and the greatest threat to the health of any democracy."[48] There was not a single cause or unique event that led al-Qaeda to attack the World Trade Center, but a development in their way of seeing Western society. For the wealthier countries that exploited the more vulnerable countries, a point of no return was reached, and the grievances of the poorer countries often transformed into acts of violence. Since the latter cannot fight on equal terms, terrorism became the default choice. With scarce means, they nevertheless managed to express their grievances on the world stage. The exploitation of developing countries by the Americans and Western society, in addition to the decline of Islam and traditional Muslim values, supported the creation or at least the strengthening of the radical religious wing that spread a message of hate towards the United States, leading to the events of September 11, 2001.

CONCLUSION

In conclusion, globalization has certainly delivered a lot. A spirit of openness has broken down walls all over the world, allowing for the sharing of information and technology across borders and between people on a scale never before seen in human history. But globalization also had a dark side. Lurking behind it was a large and growing chasm between rich and poor—especially within countries. An inequitable distribution of wealth can wear down the social fabric. More unequal countries have worse social indicators, a poorer human development record, and

higher degrees of economic insecurity and anxiety. Fundamentally, the growth model that coexisted with globalization was unbalanced and unsustainable. Growth was driven by too much borrowing in some countries, made possible by too much saving in others. Inequality goes against notions of fairness and solidarity, but it also threatens economic and social stability. This is especially true in poorer countries.[49]

Globalization is a platform for the immediate, transnational distribution of grievances. Globalization has also increased the number of grievances in some regions, since modern tools and the innovations of globalization, such as broader and cheaper access to information in various parts of the globe, have exacerbated these grievances by making it easier for individuals in one culture to compare their circumstances and living conditions with those of another culture.[50]

The events of September 11, 2001, disrupted the whole world and affected Americans in the heart of one the largest cities in the country. Further to the clarifications presented in this work, it can be claimed that the events of September 11, 2001, were indeed a manifestation of political violence resulting from globalization. Of course, there are other adjacent causes, but globalization bears a large share of the responsibility. The excessive export of American ideology combined with the conflict with Islam in a context of globalization is a dangerous cocktail. It will be interesting to see what the American approach will be in coming years with the re-election of the Democratic Party candidate, Barack Obama, who promised in his first term to restore American leadership on the world stage while keeping Americans safe. The wager President Obama made is ambitious, and it will be interesting to analyse how it will be received by Arab nations in the coming years.

Captain Samuel Boudreault, 438 Air Expeditionary Wing (430 Tactical Helicopter Squadron is his home unit in Canada) is currently deployed with Operation ATTENTION as mentor at the air command and control center (ACCC) in Kabul, Afghanistan. He is a former Royal Canadian Navy maritime surface officer (MARS) currently awaiting aerospace controller (AEC) training.

ABBREVIATIONS

CE	Common Era
OPEC	Organization of the Petroleum Exporting Countries
US	United States

NOTES

1. Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1989), 88.

2. Jean-François Daguzan, "Terrorisme et Mondialisation : La coopération, réponse à la menace transnationale," (master's thesis, Université de Paris, 2012).

3. John Paul II, "Justice Can Be Done only by God," (message for the World Day of Peace, December 8, 2001), http://www.traces-cl.com/gen02/justice.htm (accessed April 2, 2013).

4. *Dictionnaire Larousse* (2012).

5. Government of Canada, Public Safety Canada, "Currently Listed Entities," Public Safety Canada, http://www.securitepublique.gc.ca/prg/ns/le/cle-eng.aspx#Hizballah (accessed April 2, 2013).

6. France, The French Ministry of Foreign Affairs, "La lutte contre le terrorisme au sein de l'Union européenne," The French Ministry of Foreign Affairs,

http://www.diplomatie.gouv.fr/fr/enjeux-internationaux/defense-et-securite/terrorisme/la-lutte-contre-le-terrorisme-au/article/la-liste-anti-terroriste (accessed October 26, 2012, site discontinued).

7. United States, Department of State, "Foreign Terrorist Organizations," Department of State, September 28, 2012, http://www.state.gov/j/ct/rls/other/des/123085.htm (accessed April 2, 2013).

8. Government of Canada.

9. Julie Breton, Dany Deschênes and Richard Garon, "La politique canadienne de sécurité nationale, une conséquence de la transformation des institutions publiques de sécurité depuis la fin de la Guerre froide?," Institut québécois des hautes études internationales, Programme Paix et sécurité internationales, Québec, Laval University, 2004, (paper presented at the Conference of Defence Associations Institute (CDA)-CD and Foreign Affaires Institute (CDFAI) 7th Annual Graduate Student Symposium, Royal Military College of Canada, Kingston, ON, October 29–30, 2004).

10. Eisenhower Study Group, *The Cost of War Since 2001: Iraq, Afghanistan, and Pakistan*, *Executive Summary* (Providence, RI: Watson Institute for International Study, Brown University, June 2011), http://www.thefiscaltimes.com/~/~/media/Fiscal-Times/Research-Center/Budget-Impact/Think-Tanks/2011/06/29/The-Costs-Of-War-Since-2001.ashx?pid=%7B1C75F3DB-0DE3-4470-8A8C-DB8E4C8DA971%7D (accessed April 2, 2013).

11. Emergency Response and Research Institute, "Summary/Review of Reports Concerning Threats by Osama Bin Laden to Conduct Terrorist Operations Against the United States and/or her Allies – 23 February 1998 to 16 June 1998 (includes original February "fatwa")," Emergency Response and Research Institute, https://www.mtholyoke.edu/acad/intrel/news/osama.htm (accessed April 2, 2013).

12. Nathalie Cettina, *Terrorisme: L'histoire de sa mondialisation* (Paris: L'Harmattan, 2001), 24.

13. François Géré, *Pourquoi le terrorisme?* [Why Terrorism?] (Paris: Larousse, 2006), 24.

14. Cettina, 9.

15. Daniel Arasse, *La guillotine et l'imaginaire de la Terreur* (Paris, Flammarion, 1987), 46.

16. Ibid., 47.

17. Ibid., 97.

18. David Martin Jones, *Globalisation and the New Terror: The Asia and Pacific Dimension* (Northampton, MA: Edward Elgar Publishing, 2004), 80.

19. Keefer Loayza, *Terrorism, Economic Development and Political Openness* (Cambridge University Press, 2008), 95.

20. Assaf Moghadam, *The Globalization of Martyrdom: Al Qaeda, Salafi Jihad, and the Diffusion of Suicide Attacks* (Baltimore: The Johns Hopkins University Press, 2011), 44.

21. United States, Central Intelligence Agency, "The World Factbook: Afghanistan," Central Intelligence Agency, https://www.cia.gov/library/publications/the-world-factbook/geos/af.html (accessed October 29, 2012, content updated).

22. Observatoire d'études géopolitiques, "La politique des États-Unis au Proche-Orient," http://www.etudes-geopolitiques.com/article5.asp (accessed November 2, 2012, site discontinued).

23. Cettina, 9.

24. Jones, 41.

25. Loayza, 122.

26. Ibid., 135.

27. Ibid., 95.

28. Moghadam, 120.

29. Ibid.

30. Ibid.

31. Cettina, 77.

32. Jim Lacey, *The Canons of Jihad: Terrorists' Strategy for Defeating America* (Annapolis, MD: Naval Institute Press, 2008), 9.

33. Ibid., 27.

34. Sayyib Qutb, *Milestones* (Salimiah, Kuwait: International Islamic Federation of Student Organizations, distributed by Kazi Publications, 2003), 130.

35. Cettina, 79.

36. Ibid., 90.

37. Lynne Jackson, *Understanding Terrorism: Psychosocial Roots, Consequences and Interventions* (Washington, DC: American Psychological Association, 2004), 80.

38. Ibid., 81.

39. Christian Deblock, "La politique commerciale des États-Unis en perspective," (Centre d'études sur l'intégration et la mondialisation, University of Quebec at Montreal, December 7, 2009), http://www.ceim.uqam.ca/IMG/pdf_intro-pol-com.pdf (accessed April 2, 2013).

40. Ibid.

41. Mbola, "Comment les pays Musulmans utilisent le pétrole comme une arme [How Muslim Countries Use Oil as a Weapon]," Muslim Academy, October 2, 2012, http://muslim-academy.com/comment-les-pays-musulmans-utilisent-le-petrole-comme-une-arme/ (accessed February 14, 2013). [English version available at http://muslim-academy.com/how-muslim-countries-are-using-oil-as-a-weapon/]

42. Thom Hartmann, "Carter Tried to Stop Bush's Energy Disaster—28 Years Ago," May 3, 2005, Common Dreams, http://www.commondreams.org/views05/0503-22.htm (accessed April 2, 2013).

43. United States, US Department of Energy, "Fact # 456: February 12, 2007 Oil Imports, Today and Tomorrow," US Department of Energy, http://www1.eere.energy.gov/vehiclesandfuels/facts/2007_fcvt_fotw456.html (accessed April 2, 2013).

44. Obervatoire d'études géopolitiques.

45. Moghadam, 44.

46. Mathieu Guidère, *Les nouveaux terroristes* (Paris: Autrement Paris, 2010), 89.

47. Ibid.

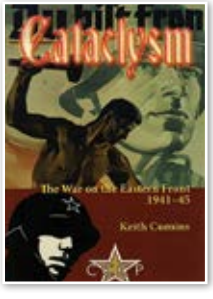
48. Tony Judt, *Ill Fares the Land: A Treatise on Our Present Discontents* (London: Allen Lane, 2010).

49. Dominique Strauss-Kahn, "Human Development and Wealth Distribution," (speech, International Monetary Fund, Agadir, November 1, 2010), http://www.imf.org/external/np/speeches/2010/110110.htm (accessed April 2, 2013).

50. Moghadam, 121.

BOOK REVIEWS

CATACLYSM: THE WAR ON THE EASTERN FRONT, 1941–45



By Keith Cumins

Helion and Company, 2011
ISBN 978-1-907677-23-6
359 pages

Review by
Major Chris Buckham, CD, MA

The Eastern Front during World War II encompassed a military landscape that by any standard beggars the imagination. Over a north/south distance of 2,900 kilometres (1,800 miles), 4 million Axis troops, 750,000 horses and 600,000 vehicles swept into the Union of Soviet Socialist Republics (USSR), driving forward to the gates of Moscow and Stalingrad before ultimately being driven back to Berlin and defeat. The cost to the USSR was staggering: over 8 million military dead; for Germany and the Axis, over 4 million military fatalities. Fought with a degree of brutality not witnessed in any of the other theatres of operations, the war in the east, to a great extent, decided the outcome of World War II.

Keith Cumins's Cataclysm undertakes to capture the breadth and nature of the war in the east in one book; a daunting challenge to say the least, but one that he accomplishes quite handily. The amount of literature available pertaining to the German/Soviet conflict is vast and covers the spectrum from micro to macro analysis. Certainly, Cumins's work is presented on a much larger canvas (covering the period 1941–1945), but it is very successful at presenting the reader with a broad brush account of the events on the Eastern Front. The work is presented in chronological manner, thereby enabling the reader to easily follow the unfolding of events despite the often overlapping of operations and movement.

Despite the fact that the air conflict on the Eastern Front was as involved and far reaching in complexity as any other element, Cumins focuses on the ground campaign.

This does not take away from the impact of the text; in fact, it is beneficial, as it ensures that the work retains a reasonable length and depth. A series of colour maps are included in the book that are very valuable in assisting the reader in following the flow of events on the ground. The author offsets the fact that the maps are all centrally located within the book by providing references to the appropriate map along the border of the text. This is extremely helpful and a nice touch.

Additionally, he includes appendices that provide outstanding synopses of place names, orders of battle and divisional structures for both the German and Soviet sides. The orders of battle are further broken out into the phases of: June 22, 1941; Operation BLAU; Operation CITADEL; and the Operation BAGRATION periods. Another plus regarding the book layout is the fact that footnotes are placed at the bottom of the pages on which they are found, as opposed to at the end of the book. I prefer this method, as it allows one to review the additional information provided without breaking the flow of the book. A slight drawback is the partial bibliography, as it would have been helpful to have all of the source material included.

Cumins' writing style is fluid and smooth; therefore, despite having to approach the battles from different viewpoints and multiple regions, he is easy to follow and understand. Maintaining a strategic and operational view of the conflict enables Cumins to follow the flow of battle from the northern to southern theatres and include the actions within the German allies' spheres of influence. Additionally, from a structure perspective, he opens his narrative with a synopsis of the strategic situation leading up to the initiation of Operation BARBAROSSA. Again, while it is somewhat cursory in length, it hits all of the major points to provide the reader with the background needed to tackle the enormity of the activity that followed. Cumins also breaks his narrative into manageable subunits through the use of sectional titles that provide a contextual overview and break between sections within the chapters.

Overall, Cumins' book is a notable success. While not adding new information to the BARBAROSSA story, he succeeds admirably in condensing the complexity of the operation into a manageable and useful narrative at both the strategic and operational levels of engagement. For the aspiring historian and casual military enthusiast, this is a highly recommended book as a starting point from which to branch into more detailed accounts; made more so by the fact that it is presented in a lucid and engaging style.

Major Chris Buckham is a Logistics Officer in the Royal Canadian Air Force. He has experience working with all environments, including special operations forces (SOF). A graduate of the Royal Military College of Canada, he holds a Bachelor of Arts in Political Science and a Master of Arts in International Relations. He is presently employed as an International Line of Communication (ILOC) officer with the multinational branch of European Command (EUCOM) J4 in Stuttgart, Germany.

Abbreviation

USSR Union of Soviet Socialist Republics

GONE TO RUSSIA TO FIGHT: THE RAF IN SOUTH RUSSIA 1918–1920

By John T. Smith

Gloucestershire, UK:
Amberley Publishing,
2010
214 pages
ISBN 978-1-84868-891-9

Review by
Officer Cadet Joshua Wanvig

This book discusses and provides historical information regarding the involvement of the Royal Air Force (RAF) in the civil war that plagued the Russian people in the wake of the First World War.

To begin, the text appears to be disjointed and poorly organized. It is habitual within historical texts to provide some degree of background or preliminary information in order to set up the political, economic and social motivations for the events in question to be discussed in a more coherent manner. However, this text does not follow the usual template in any manner, neglecting to define key terms with which the reader may be unfamiliar. For example, for readers such as me who are not versed in Russian history, the text leaves us to independently research political and military terms which happen to be integral to the context of the conflict.

In the first chapter, with only a brief introduction concerning the commencement of the Russian civil war, Smith makes several references to the Bolsheviks and their earlier influences on Russian history but does not provide detailed information to explain their political associations or goals. This want of information, in turn, made it substantially more difficult to follow the progression of the conflict, as the reader does not know whether the discussed military objectives constituted progress for the RAF and its allies or perhaps the reverse.

On a similar note, Smith has a tendency to use nicknames for persons of interest who are referred to, with little to no re-introduction even though the individual may not have been referred to in detail for a number of chapters.

Following the absence of context, Smith does not introduce the specific squadrons or flights before delving into their individual exploits or plans. As a result, it is often necessary to return to earlier portions of the book in order to figure out which group of airmen is being discussed at a particular point in the text so as to recall the relevant individuals as well as their area of operations. After you have determined which squadron or flight is being discussed, the difficulties do not end, as Smith is likely to shift the historical focus without notice or indication of the change. As this is a historical text, it would make sense to follow a chronological order as the events took place. However, it appears Smith chose a different approach that discusses the events of one group in a chronological order followed by an unannounced return to the beginning of the time period. This approach made the text significantly less effective than the alternative of placing each of the independent foci side by side in order to provide context and the ability to compare the operations of each air group at any given time.

The content of Smith's text is substantially more impressive than the organizational and literary shortfalls. Smith provides numerous accounts of events in the form of diary, archive and flight log entries by persons of interest in order to authenticate his research while simultaneously offering the view from the perspective of the serving man rather than the strategist. The in-flight log, as dictated by either the pilot or gunner, often described the payload as well as the missions in a very succinct manner. For example, in an excerpt from 47 Squadron's diary, Captains Elliot and

Anderson flew on 17 August 1919: "Height 1,500. Four 112lb. [50 kilogram (kg)] and sixteen 20lb. [9 kg] Bombs were dropped onto troops and horse transport in the square and streets …"[1] It is apparent from the various diary excerpts that many of the airmen and crew resented their living conditions and, in fact, being in Russia to begin with. The ever-present weather was one of the largest difficulties for both man and machine and is described by "Knock" as, "No joke trying to keep warm. Big log stove going in quarters and all available clothing used with blankets on bed. Still cold … Have to break ice in a tub outside to get wash and water ..."[2]

It is obvious that considerable effort and diligence went into proper research, as there are numerous citations from official sources. However, this is not to say that Smith accepted information in the various archives at face value. Throughout the book there are a number of contradictions to mainstream historical beliefs, which Smith highlights and often comments on for the ridiculous nature of the grandiose assertions in question, citing the impossibility of certain situations or events based on simple math and cross-referencing. For example, during a combined attack on Tsaritsyn in late June 1919, RAF personnel claim to have dropped a 112-lb [50-kg] bomb squarely on a building filled with Russian commissars, killing everyone within. To this assertion Smith responds, "No mention of the incident can be found in the official records. Neither … were present in the area before the fall of Tsaritsyn, or just after, and this story may not be accurate."[3]

This book is extremely interesting for those curious about the RAF campaigns in Russia or the development of the RAF in general, but I would not recommend it as an introduction to the topic for the reasons cited above (no background information or context). Due to the relative and repeated mistakes of the RAF during the campaign in question, this text may be viewed as a guide of what to avoid and of lessons learned from the mistakes of the early RAF.

At the time of writing, Officer Cadet Wanvig was working in the Research Branch of the Canadian Forces Aerospace Warfare Centre at 8 Wing Trenton. In September 2012, he returned to the Royal Military College for his final year, pursuing an undergraduate degree in Military and Strategic Studies.

Abbreviations

kg	kilogram
lb	pound
RAF	Royal Air Force

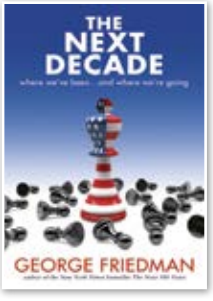
Notes

1. John T. Smith, *Gone to Russia to Fight: The RAF in South Russia 1918–1920* (Gloucestershire, UK: Amberley, 2010), 129.

2. Ibid., 44.

3. Ibid., 107.

THE NEXT DECADE: WHERE WE'VE BEEN … AND WHERE WE'RE GOING



By George Friedman

New York: Double Day, 2011
243 pages
ISBN 978-0-385-53294-5

Review by
Officer Cadet Bradley Ticky

A century is about events. A decade is about people. …

This book is about the short run of the next ten years: the specific realities to be faced, the specific decisions to be made, and the likely consequences of those decisions.[1]

On the first page of the introduction of *The Next Decade*, George Friedman reveals what may be expected within his book. *The Next Decade* starts by looking into America's past. Friedman examines the past conflicts and events that have occurred throughout American history and then explains how the decisions taken by various presidents in relation to these events (such as when presidents Roosevelt and Nixon created "alliances with countries that had previously been regarded as strategic and moral threats"[2]) have come to shape America into what he believes it is today: a global empire.[3] Friedman looks at America's involvement with every continent, with the more important regions, such as Israel, receiving more attention in order to properly examine the situation.

It is clear from reading *The Next Decade* that Friedman has done significant research on his subject and that he is well versed in American history. He presents his information in a clear manner, using simple but effective language that any reader can follow without leaving out any pertinent information. As his book also discusses geopolitics, Friedman often uses maps of the region discussed in order to emphasize his point about how the geography of an area affects its economy as well as its politics. Friedman shows a great deal of insight in *The Next Decade* by identifying many international problems that the Americans may face in the near future, such as "limiting a relationship between Russia and Germany which could, in succeeding decades, create a power that could challenge American hegemony."[4]

Although the book accomplishes quite a few things, it still leaves much to be desired. A major issue with *The Next Decade* is the complete lack of citations. It is unacceptable to present statistical data without referencing a source; the data loses all credibility. Predicting the future is a difficult endeavour; there are just too many uncertainties that cannot be accounted for. Friedman reminds the reader of just how difficult it is to predict the future throughout *The Next Decade* by not giving any solid conclusions for what might occur. Friedman declares that the president has many tasks ahead of him for the next ten years, but he offers little to no information or insights on how any of the problems might be addressed. For a book that is supposed to explain "the specific decisions to be made"[5] in the next ten years, *The Next Decade* fails to achieve its goal in that respect and leaves the reader a little disappointed.

The Next Decade may not have accomplished all of its stated goals, but that by no means makes it a bad book. What it does accomplish, however, is that it examines the decisions taken by American leaders that brought their country to where it is today as well as the issues that they may face in the near future on the political side. I recommend this book to those who are interested in American history or geopolitics, or even international relationships.

At the time of writing, Bradley Ticky was an officer cadet at the Royal Military College of Canada and was in his second year of university, with the aim of acquiring a bachelor's degree in civil engineering.

Notes

1. George Friedman, *The Next Decade: Where We've Been … and Where We're Going* (New York: Double Day, 2011), 1.

2. Ibid., 112.

3. Ibid., 10.

4. Ibid, 165.

5. Ibid., 1.

SOVIET AIR FORCE THEORY, 1918–1945

By James Sterrett

New York:
Routledge, 2007
208 pages
ISBN-10 0415651867
ISBN-13 978-0415651868

Review by
Major Nathan Burgess, CD

In Soviet Air Force Theory, 1918–1945, James Sterrett provides a comprehensive examination of Soviet air power theory, arguing that while Soviet thinkers considered Western theories on airpower, they largely developed their own unique doctrine applicable to the circumstances of the Soviet Union.

His book provides an overview of the development of Soviet air power theory from the early days of the 20th century until the end of the Second World War. The book focuses specifically on what Soviet theorists thought about properly utilizing these new airborne capabilities. The author discusses some broader issues, such as the economy and the nation's industrial capacity, but only insofar as they related to Soviet air power theory. He does not discuss other related themes, such as the technical specifications of aircraft, instead choosing to focus on what the Soviets were thinking about tactics and doctrine during that time period.

Sterrett demonstrates, through a thorough examination of the dialogue amongst theorists of the time, that the Soviets did not simply adopt or copy foreign ideas about air power. Instead, they examined the use of air power within the context of their unique Soviet circumstances. Their geography, geopolitical situation, confidence in aircraft capabilities and technologies, the economic situation, industrial capabilities, and the perceived threats from enemy forces all played a role in how they developed unique ideas on air warfare. That being said, the Soviets did not ignore publications on air power theory from the West; rather, they adopted ideas where they fit into their theories on air warfare.

The author uses a host of primary and secondary sources, including countless published documents, articles, and books written by the leading air power thinkers of the time. He brilliantly includes extracts from Soviet field manuals, allowing the reader to delve into the minds of the strategists of that era. The book is divided into four chapters, organized chronologically from the early days of the 20th century through the end of the Second World War. The first chapter, "Early Concepts, 1900–1928," deals with emerging theories on air power. The author, rather confusingly, jumps around chronologically from observation balloons utilized during manoeuvres in 1895, to field regulations published in 1936. Nonetheless, this chapter outlines how the Russian Revolution left the Soviets with a small, inexperienced Red Air Force in 1918 coupled with a very weak industrial sector and economy.

Sterrett discusses the debates between different thinkers of the time, who argued, amongst other things, whether air power should be organized into a centralized command or subordinated to the army. Other arguments include whether aircraft should be concentrated en masse or utilized in disparate missions, whether the primary mission of the air force is to support land forces or conduct more independent missions in pursuit of air superiority, what air superiority means, and what the nature of future air power will look like. In the end, it appears the Soviets, along with most other countries with a significant threat along their land frontier, favoured an air force whose primary mission was to support land forces. Nations such as the United States of America (USA) and Great Britain, who did not have a threat along their border,

favoured an air force whose primary mission was strategic bombing.

An underlying assumption throughout this period was that the Soviet Red Air Force would be relatively small in numbers, with a small budget and weak industrial sector to rely on. This all changed in 1928, when the first Soviet Five-Year Plan was approved, providing a major military rearmament.

Chapter 2, "Expansion, 1928–1937," deals with the growth of the Soviet Red Air Force, now well funded and strongly supported by heavy industry. The author demonstrates that, while aircraft capabilities and numbers were significantly improved, intellectual freedom was somewhat stifled by the political events of the time—namely, the Soviet Party "cleansing" in 1932, the Spanish Civil War in 1936, and the military purges in 1937.

Nonetheless, the theoretical debates on air power continued, with consensus building in some areas, such as the requirement to gain "air superiority." Theorists were still at odds, however, on a number of issues. These issues included whether air superiority was achieved through strategic bombing of air bases, industry, and so on (thus gaining air superiority through the strategic elimination of enemy air forces); through the use of fighters in aerial combat providing temporary air superiority; whether the primary mission of the Air Force was in support of land and naval forces or to conduct independent strategic missions; or whether air power should be used en masse or in separate coordinated actions. Sterrett shows that the results of the Spanish Civil War, in which bombers performed poorly relative to fighters, all but ended the debate regarding strategic bombing. The purges of 1937 "eliminated" almost all of the contemporary Soviet air power theorists, thus hindering and altering the theoretical debate moving forward.

In the third chapter, "Small Wars, 1936–1940", Sterrett covers the small wars in Spain, Mongolia, China, and Finland. He discusses the successes and failures during the various conflicts. There were many lessons learned during these clashes, and while the theoretical debates continued, there appeared to be some consensus building that the air force must do a better job of cooperating with and supporting ground forces. In order to do this, coordination and communications needed to be improved.

In Chapter 4, "The Great Patriotic War, 1941–45," the author examines the largest land war in history, code-named Operation BARBAROSSA by the Germans. While many aspects of air power theory continued to be debated, Sterrett shows that there was relative consensus in certain areas—namely, the employment of aircraft en masse down the main axis of ground effort and the primacy of supporting land operations. This was in contrast to leading Western theorists in the USA and elsewhere, who focused on the primacy of independent strategic bombing missions over support to land forces.

Sterrett makes a strong argument that Soviet theorists did not slavishly copy Western air power doctrine from 1918–1945. Through the use of primary and secondary sources, including documents written by top theorists of the time, Sterrett proves that Soviet air power theory was developed using independent Soviet thought, in accordance with their own unique circumstances. While Soviet theorists took Western publications on air power theory into consideration, they adopted those ideas only where they fit into their own theories on air warfare. Sterrett's use of excerpts from Soviet strategists, coupled with the fact that Soviet air power doctrine was very different from that in the West, provides a compelling argument that Soviets produced their own unique air force theory.

Reviews of the book are difficult to find; however, there is one excellent academic review written by Beatrice Heuser. In her review, she applauds Sterrett for the academic

discipline and rigour required to study such a difficult subject. She admires his thorough use of extracts and other primary and secondary sources that provide exceptional insight into the thinkers of the time. In fact, her only negative commentary is that she wishes Sterrett used more extracts. She insightfully notes that, perhaps contrary to Sterrett's aim, he provides evidence to support the many Western historians who seek to find evidence of Soviet air force thinkers who prescribed to the use of aviation for strategic bombing (i.e., of deep targets such as cities). Nevertheless, Heuser very much appreciates the important contribution that Sterrett has made to the study of Soviet aviation. Her review of this book is thought-provoking and in accordance with my opinion of the book, citing strong use of sources, including excerpts, which provide a sound basis for Sterrett's argument. Her abovementioned comments regarding strategic bombing were intriguing.[1]

As a communications officer, and consistent with this theme, it is interesting to note that signals and communications—which enabled command, control, coordination, and reconnaissance—were germane to the successes and failures of the Soviet Red Air Force throughout this time period. Sterrett repeatedly provides examples where the lack of radio communications crippled operations, calling it the Soviets' "Achilles heel"[2] and, conversely, where the effective use of radio communications provided the necessary sinew to ensure effective operations. These problems are ironically similar to those described in contemporary articles on command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR). While technology has advanced and we have coined new acronyms such as C4ISR to describe this problem-space, we are far from properly implementing an effective solution. This is an area of war studies / military history that requires further study.

James Sterrett provides a rather comprehensive examination of Soviet air power theory, proving that, while Soviet theorists considered Western theories on air power, they developed their own unique doctrine applicable to the circumstances of the Soviet Union. Heuser's book review supports this claim, citing Sterrett's strong use of sources. Sterrett's holistic approach to air power theory is consistent with the broader discourse on air power theory, and overall, an excellent piece of academic work.

Major Nathan Burgess is a communications and electronics engineering officer in the Royal Canadian Air Force (RCAF). He has held positions within various RCAF and Canadian Forces organizations including the Directorate Aerospace Equipment Program Management (Radar & Communication Systems), 42 Radar Squadron as well as 4 Wing Telecommunications and Information Services Squadron at 4 Wing Cold Lake, Canadian Operational Support Command, and the Canadian Forces School of Communications and Electronics. He is currently being sponsored by the Canadian Forces Aerospace Warfare Centre (CFAWC) to do his Master of Arts in War Studies (with an aerospace power concentration) at the Royal Military College of Canada. His target position upon graduation is the C4ISR space position at CFAWC.

Abbreviations

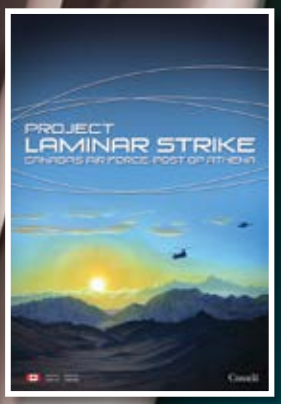
C4ISR	command, control, communications, computers, intelligence, surveillance and reconnaissance
USA	United States of America

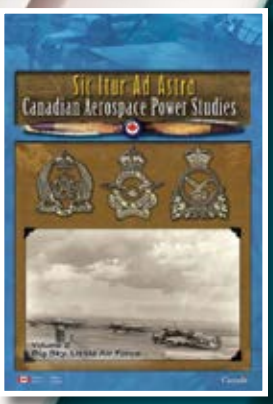
Notes

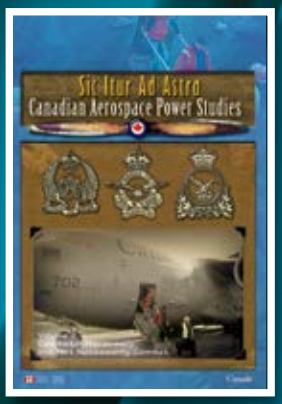
1. Beatrice Heuser, "Review of Soviet Air Force Theory, 1918–1945, by James Sterrett," *Cold War History* 9, no. 3 (August 2009): 441–52.

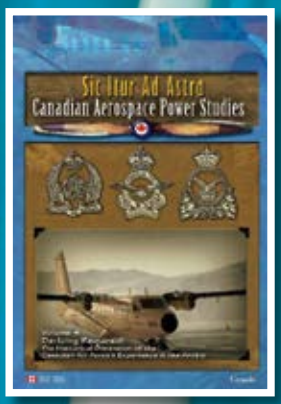
2. James Sterrett, *Soviet Air Force Theory, 1918–1945* (New York: Routledge, 2007), 111.

ORDER YOUR BOOKS NOW!









THESE PUBLICATIONS ARE AVAILABLE UPON REQUEST.
Email: CFAWCProd@forces.gc.ca