



# Continental Air Defence

## *Threat Perception and Response*

Brad W. Gladman  
DRDC-CORA  
Strategic Analysis Section

The information contained herein has been derived and determined through best practice and adherence to the highest levels of ethical and scientific investigative principles. The reported results, their interpretations, and any opinions expressed therein, remain those of the author and do not represent, or otherwise reflect, any official opinion or position of DND or the Government of Canada.

DRDC CORA TM 2012-257  
November 2012

**Defence R&D Canada**  
**Centre for Operational Research & Analysis**



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## **Defence R&D Canada – CORA**

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November 2012

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## Abstract

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This case-study focuses on defence decision-making and information flow to political leadership from both military and civilian advisors. The obstacles to the smooth flow of relevant perspectives and requirements, some created by Diefenbaker and some of which he was merely a victim, led directly to decision-making in a vacuum without a true appreciation of a) the nature of the Soviet threat, b) where Canada could and should focus its limited defence resources in direct defence of its own population centres and as a contribution to the USAF strategic deterrent, and c) how the partnership with the US could be exploited to mutual advantage. The effect of this strategic laziness was a failure to close the circle on some important issues. On the one hand the 1957-58 decision to enter into an air defence arrangement with the USAF made a great deal of sense given the serious threat posed by the manned Soviet bomber, as did the decision to begin development of the Avro Arrow, a made-in-Canada solution to this problem. However, key pieces of information on the nature of the Soviet air and missile threat to North America and an interest by both the British and Americans in the Avro Arrow never reached either the MND or Diefenbaker. Neither did the willingness of senior US officials to fund far larger numbers of Arrows for the RAF and RCAF than either had ever dreamt possible. While it is not certain this would have swayed Diefenbaker away from cancelling the Arrow, doing so armed with this information would have displayed a far greater lack of strategic courage than even Diefenbaker's worst opponents accused him of possessing. At the very least, it would have made it clear that if the Arrow was to be cancelled, some clear plans had to be in place to provide a replacement for the obsolete CF-100 before it was cancelled.

This case also reinforces the view that advice to senior military and civilian leadership must follow structured organisational pathways to get the right information to decision-makers in a timely fashion. It has been shown here that when those pathways are ignored, and advice is allowed to deteriorate into a random series of informal discussions where perspectives are abandoned in favour of uninformed opinions of mandarins whose authority is derived from proximity and personal relations rather than expertise, incoherent decision-making is difficult to avoid. *Ad hoc* discussions are no substitute for informed decision-making, and as this case demonstrates, can have disastrous consequences for the national security debate, Canada's status as a reliable ally, and Canadian and continental security writ large.

## Résumé

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La présente étude de cas porte sur le processus décisionnel de la Défense et le flux d'information entre les dirigeants politiques et les conseillers civils et militaires. Les obstacles qu'avait créés Diefenbaker et les autres dont il a été la victime dans l'acheminement de l'information sur les perspectives et les exigences associées, ont mené à des prises de décision sans contexte et sans véritable appréciation de : a) la nature de la menace soviétique et b) les objectifs sur lesquels le Canada devait concentrer ses ressources limitées de défense pour la protection directe de ses centres urbains et pour contribuer à la stratégie de dissuasion de l'USAF; c) la manière dont le

Canada pouvait exploiter le partenariat avec les Américains au bénéfice des deux parties. Ce laisser-aller stratégique a eu pour effet d'empêcher de fermer la bouche sur d'importantes questions. Il était tout à fait logique pour le Canada de prendre la décision en 1957-1958 de conclure une entente de défense aérienne avec la USAF, étant donné la grave menace que représentait le bombardier soviétique piloté, de même que la décision de commencer la conception du Avro Arrow, une solution canadienne à ce problème. Le Ministère de la Défense et Diefenbaker n'ont toutefois jamais reçu des renseignements importants sur la nature de la menace aérienne et balistique des Soviétiques pour l'Amérique du Nord, ni sur l'intérêt des Britanniques et des Américains à l'égard du Avro Arrow, ni sur la volonté des hauts fonctionnaires des États-Unis de financer la construction d'un nombre grandement supérieur à ce qui avait été imaginé d'Arrows pour la RAF et l'ARC. Alors qu'on ne peut pas savoir exactement comment ces renseignements auraient influencé Diefenbaker contre l'annulation de l'Arrow, s'il avait eu ces renseignements en main, le manque de courage stratégique qu'il aurait affiché aurait été bien pire que ce que pouvaient l'accuser ses détracteurs. Pour le moins, le public aurait compris que l'annulation du programme de l'Arrow signifiait que le gouvernement avait mis en place des plans clairs pour fournir un remplacement au CF-100 obsolète avant son annulation.

Cette étude de cas appuie l'opinion selon laquelle les conseils destinés aux hauts dirigeants militaires et civils doivent suivre des chemins organisationnels structurés afin que les bons renseignements soient acheminés aux décideurs en temps opportun. Il a été démontré que lorsque ces chemins sont ignorés, et que l'on permet aux conseils d'être transformés dans une série de discussions informelles où les perspectives sont abandonnées au profit d'opinions mal avisées de mandarins qui tirent leur autorité sur le sujet de leur proximité et de leurs relations personnelles au lieu d'une véritable expertise, il est difficile d'éviter des décisions incohérentes. Les discussions à l'improviste ne peuvent remplacer des décisions éclairées. Et comme le démontre ce cas, ces décisions peuvent avoir des conséquences désastreuses sur le débat en matière de sécurité nationale, sur la position du Canada en tant qu'allié de confiance, et sur la sécurité du Canada et du continent dans son ensemble.

## Executive summary

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### Continental Air Defence: Threat Perception and Response

Dr. Brad W. Gladman; DRDC CORA TM 2012-257; Defence R&D Canada – CORA; November 2012.

**Introduction or background:** This case-study, which is the second in a series of eight, focuses on defence decision-making and information flow to political leadership from both military and civilian advisors. It will challenge some of the assumptions in the literature surrounding not only the formation of NORAD, but also the related decision to cancel the A.V. Roe Canada (Avro) Arrow without any real thought to a replacement, all with a view to illuminating the important issues of how the government understood and responded to a changing strategic environment, and whether essential information even reached senior political leadership to enable coherent thinking and considered decisions. It will show that a degree of strategic laziness, enhanced by a slow move away from a mobilisation paradigm towards one with large forces in-being, had crept into the nation's strategic planning and understanding of the means by which the Soviets might threaten North America. In the end, all of this led to a failure to conceive of a proper role for Canada in continental air defence – one within its socio-economic means that would make a meaningful contribution to the partnership with the US in the defence of the continent. By reconstructing the events and decision-making processes that existed in the political, bureaucratic and military domains, the case will continue to build the 'story' of the Canada-US strategic defence relationship.

**Results:** The obstacles to the smooth flow of relevant perspectives and requirements, some created by Diefenbaker and some of which he was merely a victim, led directly to decision-making in a vacuum without a true appreciation of a) the nature of the Soviet threat, b) where Canada could and should focus its limited defence resources in direct defence of its own population centres and as a contribution to the USAF strategic deterrent, and c) how the partnership with the US could be exploited to mutual advantage. The effect of this strategic laziness was a failure to close the circle on some important issues. On the one hand the 1957-58 decision to enter into an air defence arrangement with the USAF made a great deal of sense given the serious threat posed by the manned Soviet bomber, as did the decision to begin development of the Avro Arrow, a made-in-Canada solution to this problem. However, key pieces of information on the nature of the Soviet air and missile threat to North America and an interest by both the British and Americans in the Avro Arrow never reached either the MND or Diefenbaker. Neither did the willingness of senior US officials to fund far larger numbers of Arrows for the RAF and RCAF than either had ever dreamt possible. While it is not certain this would have swayed Diefenbaker away from cancelling the Arrow, doing so armed with this information would have displayed a far greater lack of strategic courage than even Diefenbaker's worst opponents accused him of possessing. At the very least, it would have made it clear that if the Arrow was to be cancelled, some clear plans had to be in place to provide a replacement for the obsolete CF-100 before it was cancelled.

**Significance:** This case reinforces the fact that advice to senior military and civilian leadership must follow structured organisational pathways to get the right information to decision-makers in a timely fashion. It has been shown here that when those pathways are ignored, and advice is

allowed to deteriorate into a random series of informal discussions where perspectives are abandoned in favour of uninformed opinions of mandarins whose authority is derived from proximity and personal relations rather than expertise, incoherent decision-making is difficult to avoid. *Ad hoc* discussions are no substitute for informed decision-making, and as this case demonstrates, can have disastrous consequences for the national security debate, Canada's status as a reliable ally, and Canadian and continental security writ large.

**Future plans:** This body of knowledge can be deployed as a contextual backdrop to support key decisions both in the area of Canada-US defence relations and crisis planning.

# Sommaire

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## Continental Air Defence: Threat Perception and Response

Dr. Brad W. Gladman; DRDC CORA TM 2012-257; R & D pour la défense  
Canada – CORA; Novembre 2012.

**Introduction ou contexte :** La présente étude de cas, la deuxième d'une série de huit, porte sur le processus décisionnel de la défense et le flux d'information entre les dirigeants politiques et les conseillers civils et militaires. L'étude de cas mettra en doute certaines suppositions dans les documents concernant non seulement la création de NORAD, mais aussi la décision associée d'annuler le programme Arrow d'A.V. Roe Canada (Avro) sans tenir compte d'un remplacement, le tout dans le but d'illustrer des questions importantes relatives à la manière dont le gouvernement a compris et a réagi aux changements dans l'environnement stratégique, et à savoir si de l'information importante est parvenue aux dirigeants politiques afin de leur permettre de réfléchir de manière cohérente et de prendre des décisions éclairées. L'étude de cas montrera qu'un certain degré de laisser-aller stratégique, combinée à un lent détachement du principe de la mobilisation pour le remplacer par le principe de grandes forces existantes, a contaminé la planification stratégique du pays et sa compréhension de la façon dont les Soviétiques pouvaient menacer l'Amérique du Nord. À la fin, tous ces facteurs ont mené à l'échec de la conception d'un rôle approprié pour le Canada dans la défense aérienne – un rôle qui s'inscrivait dans ses moyens socio-économiques et qui aurait fait une contribution utile au partenariat avec les États-Unis dans la défense du continent. Grâce à la reconstruction des événements et du processus décisionnel qui existait dans les domaines politiques, bureaucratiques et militaires, l'étude de cas permettra d'établir l'historique de la relation stratégique en matière de défense entre le Canada et les États-Unis.

**Résultats :** Les obstacles qu'avait créés Diefenbaker et les autres dont il a été la victime dans l'acheminement de l'information sur les perspectives et les exigences associées, ont mené à des prises de décision sans contexte et sans véritable appréciation de : a) la nature de la menace soviétique et b) les objectifs sur lesquels le Canada devait concentrer ses ressources limitées de défense pour la protection directe de ses centres urbains et pour contribuer à la stratégie de dissuasion de l'USAF; c) la manière dont le Canada pouvait exploiter le partenariat avec les Américains au bénéfice des deux parties. Ce laisser-aller stratégique a eu pour effet d'empêcher de fermer la bouche sur d'importantes questions. Il était tout à fait logique pour le Canada de prendre la décision en 1957-1958 de conclure une entente de défense aérienne avec la USAF, étant donné la grave menace que représentait le bombardier soviétique piloté, de même que la décision de commencer la conception du Avro Arrow, une solution canadienne à ce problème. Le Ministère de la Défense et Diefenbaker n'ont toutefois jamais reçu des renseignements importants sur la nature de la menace aérienne et balistique des Soviétiques pour l'Amérique du Nord, ni sur l'intérêt des Britanniques et des Américains à l'égard du Avro Arrow, ni sur la volonté des hauts fonctionnaires des États-Unis de financer la construction d'un nombre grandement supérieur à ce qui avait été imaginé d'Arrows pour la RAF et l'ARC. Alors qu'on ne peut pas savoir exactement comment ces renseignements auraient influencé Diefenbaker contre l'annulation de l'Arrow, s'il avait eu ces renseignements en main, le manque de courage stratégique qu'il aurait affiché aurait été bien pire que ce que pouvaient l'accuser ses détracteurs. Pour le moins, le public aurait

compris que l'annulation du programme de l'Arrow signifiait que le gouvernement avait mis en place des plans clairs pour fournir un remplacement au CF-100 obsolète avant son annulation..

**Signification :** Cette étude de cas appuie l'opinion selon laquelle les conseils destinés aux hauts dirigeants militaires et civils doivent suivre des chemins organisationnels structurés afin que les bons renseignements soient acheminés aux décideurs en temps opportun. Il a été démontré que lorsque ces chemins sont ignorés, et que l'on permet aux conseils d'être transformés dans une série de discussions informelles où les perspectives sont abandonnées au profit d'opinions mal avisées de mandarins qui tirent leur autorité sur le sujet de leur proximité et de leurs relations personnelles au lieu d'une véritable expertise, il est difficile d'éviter des décisions incohérentes. Les discussions à l'improviste ne peuvent remplacer des décisions éclairées. Et comme le démontre ce cas, ces décisions peuvent avoir des conséquences désastreuses sur le débat en matière de sécurité nationale, sur la position du Canada en tant qu'allié de confiance, et sur la sécurité du Canada et du continent dans son ensemble.

**Plans futurs :** Ces connaissances peuvent être utilisées à titre de contexte pour appuyer des décisions dans les domaines des relations en matière de défense entre le Canada et les États-Unis et dans la planification en situation de crise. This page intentionally left blank.

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## Introduction

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*NORAD came into being because the Royal Canadian and U.S. air forces wanted it... Subsequent events revealed that Diefenbaker and his cabinet had only the vaguest idea how much of Canada's national sovereignty they had signed away.<sup>1</sup>*

*The "integration of the Canadian and American air defense systems...brought Canada into what had been a purely American state of confusion."<sup>2</sup>*

The quotes above provide insight into the assumptions underpinning much of the scholarship on the decision-making behind the formation of the North American Air Defense Command (NORAD) in 1957-58.<sup>3</sup> The implication is that the Government of Canada under the leadership of John G. Diefenbaker had been duped by senior military leaders into a decision that compromised Canadian sovereignty. Moreover, rather than bring focus to air defence efforts against a common threat, the establishment of NORAD actually confused the situation. Although not directly acknowledged, these two statements imply that Canadian political leaders had no clear understanding of defence matters, and that they did not share the same threat perception with their own military advisors or Washington, neither of which can be denied. What frequently is missed, or treated superficially, are the reasons for this discord, whether the criticism levelled at Canadian politicians is justified, and what role the mechanics of decision-making and the nature of Canadian 'strategic culture' played in this friction. More important, however, is the far too common assertion that entering into an air defence agreement with the US or accepting assistance in confronting forcefully an opponent beyond Canada's ability to deal with on its own, both of which actually are expressions of national sovereignty, somehow signed that sovereignty away.<sup>4</sup>

This case-study will challenge some of the assumptions in the literature surrounding not only the formation of NORAD, but also the related decision to cancel the A.V. Roe Canada (Avro) Arrow without any real thought put to a replacement.<sup>5</sup> Only then, when faced with the possibility of

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<sup>1</sup> John Herd Thompson and Stephen J Randall, *Canada and the United States: Ambivalent Allies* (Athens GA: The University of Georgia Press, 1997), 199.

<sup>2</sup> Joseph T. Jockel, *No Boundaries Upstairs: Canada, the United States, and the Origins of North American Air Defence, 1945-1958* (Vancouver: University of British Columbia Press, 1987), 127.

<sup>3</sup> The date range reflects the stand-up of the command in 1957 and the exchange of notes in 1958.

<sup>4</sup> For a few examples of the numerous titles offering a somewhat polemical tone to this issue and Canadian Defence Policy in general see Lewis Hertzman, John Warnock, and Thomas Hockin, *Alliances & Illusions: Canada and the NATO-NORAD Question* (Edmonton: M. G. Hurtig Ltd., 1969), Gerard S. Vano, *Canada: The Strategic and Military Pawn* (New York: Praeger, 1988), Andrew Brewin, *Stand on Guard: The Search for a Canadian Defence Policy* (Toronto: McClelland and Stewart, 1965), Peter C. Newman, *True North Not Strong and Free* (Toronto: McClelland and Stewart, 1983), John Warnock, *Partner to Behemoth: The Military Policy of a Satellite Canada* (Toronto: New Press, 1970), David Cox, *Canada and NORAD, 1958-1978: A Cautionary Retrospective*, Aurora Papers 1 (Ottawa: Canadian Institute for Arms Control and Disarmament, 1985), Greg Donaghy, *Tolerant Allies: Canada & the United States 1963-1968* (Montreal & Kingston: McGill-Queen's University Press, 2002), John Herd Thompson and Stephen J. Randall, *Canada and the United States: Ambivalent Allies* (Athens GA: The University of Georgia Press, 1997).

<sup>5</sup> The literature assessed as comprising the accepted national narrative appeared in the first Technical Memorandum of this series, see Brad Gladman and Peter Archambault, *The Canada-US Strategic Defence*

having US interceptors placed on Canadian bases to fill this gap, was an attempt made quickly to fill this gap with American made missiles and aircraft for continental air defence without much reference to Royal Canadian Air Force (RCAF) or NORAD requirements.<sup>6</sup> All these questions will be addressed with a view to illuminating how the government understood and responded to a changing strategic environment, and whether essential information even reached senior political leadership to enable coherent thinking and considered decisions. It will show that a degree of strategic laziness, enhanced by a slow move away from a mobilisation paradigm towards one with large forces in-being, had crept into the nation's strategic planning and understanding of the means by which the Soviets might threaten North America.<sup>7</sup> In the end, all of this led to a failure to conceive of a proper role for Canada in continental air defence – one within its socio-economic means that would make a meaningful contribution to the partnership with the US in the defence of the continent, and that would be appreciated as such. A related question concerns how information flowed (or failed to) within government and between the governments of the US and Canada, and where the obstacles were. The effect of this strategic laziness was perhaps a missed opportunity to provide a truly meaningful Canadian role in continental defence, one which would complement the USAF Strategic Air Command's (SAC) focus on warning of impending Soviet attack in time to get its strategic bombers airborne and on target.

In so doing, this case-study must confront the mechanics of decision-making at that time. Did the criticism Diefenbaker received for the way in which the NORAD agreement was approved cause him to believe he had been duped by his military advisors, and did this shape his approach to defence matters throughout his time in office? Did this perception cause Diefenbaker to eschew defence decision-making by avoiding the Cabinet Defence Committee, providing Diefenbaker with a convenient excuse to avoid receiving decision-support from those who understood defence? Were subordinates unwilling or unable to push information strongly, and thus allow leaders to get away either with inaction or to proceed with poorly informed decisions? More importantly, did isolation from needed information allow the world-views of Canadian political leadership to run unchallenged, and to what degree did parochial interests and structural problems with the decision-support architecture interfere with coherent advice to political leaders? Ultimately, these issues shed light on the way in which the Canadian government planned to meet its perception of a changing threat environment, something which has direct relevance today. From a defence perspective, the key question boils down to whose perspective drove the advice given to Government on the capabilities needed to meet the challenges faced – the operational commander (in the case of NORAD a USAF General) with the responsibility to defend against the Soviet bomber threat, the Canadian Chiefs of Staff, or the Secretary to the Cabinet? Coming to terms with these issues will identify the structural, procedural, and other systemic flaws, all of

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*Relationship: Methodology and Case-Study Synopses* (Ottawa: DRDC CORA TM 2009-063, 2009), 35-39. That review was preliminary, and additional titles have been assessed since. In either case, footnotes will be provided to indicate which sources are being challenged. It will not get into the film and media interpretations of the Arrow debate, as despite their being important to how the public views this incident, these are not scholarly works.

<sup>6</sup> Jon B. McLin, *Canada's Changing Defense Policy, 1957-1963* (Baltimore: Johns Hopkins Press, 1967), 102. Also see Directorate of History and Heritage (DHH), 73/1223 Raymont Papers Series 1, Box 1, File 12, Paper prepared at the request of the Chiefs of Staff Committee entitled "Implications of USAF Taking Over RCAF Manned Interceptor Role" April 1959; DHH 73/1223 Raymont papers Series 6, File 3005, *Hansard*, 2 March 1959, 1503.

<sup>7</sup> Brad Gladman and Peter Archambault, *Confronting 'the Essence of Decision': Canada and the Cuban Missile Crisis* (Ottawa: DRDC-CORA Technical Memorandum 2010-250), 26-27.

which will assist in efforts to explore the nature of Canadian 'strategic culture'. These questions are the same ones that could be asked today. Thus, their solutions, or lack thereof, have the potential to set the context for current debates over the role of the operational commander in establishing what is required both to inform and execute political direction.

# 1 The Evolution of Integrated Air Defence

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While the formation of NORAD was unprecedented in Canadian military history, the placing of elements of the Canadian Forces under the operational control of allied powers certainly was not.<sup>8</sup> In the Second World War, for example, units of the 1<sup>st</sup> Canadian Army, namely the 2<sup>nd</sup> and 3<sup>rd</sup> Infantry Divisions, 4<sup>th</sup> Armoured Division, and 2<sup>nd</sup> Armoured Brigade, while still under national command, were under the control and direction of Field Marshal Bernard Montgomery and 21<sup>st</sup> Army Group. Similarly, in the early 1950s the Royal Canadian Air Force's No. 1 Air Division's squadrons always were under Canadian command but were part of the 4<sup>th</sup> Allied Tactical Air Force, which itself was part of NATO's Allied Air Forces Central Europe. For NORAD, this

principle of effecting collective security through the medium of a single chain of operational control was well established in the NATO organisation where, for example SACEUR has operational control over all assigned forces. It became equally important that this same principle should apply to the direction of the air defence of North America.<sup>9</sup>

Thus, although the prospect of placing Canadian squadrons under the operational control of other nations was not new, a new dimension had been added. For once, a bi-national command with an American commander was being given the authority to control Canadian and American fighters in defence against a common enemy over the Canadian homeland. While some have argued since, and many believed at the time – in particular those from External Affairs who Diefenbaker referred to as ‘personalities’ – that such an arrangement had signed away Canadian sovereignty, this action did nothing of the kind.<sup>10</sup> If a sovereign government entered into a defence agreement with an appreciation of a threat beyond its ability to confront on its own, that act was an expression of sovereignty rather than a surrender of it. The Soviet threat to North America, not to mention all NATO nations, was of such a magnitude that none save the United States could meet it effectively without the support of others, and even the United States would have had to unleash a nuclear holocaust in order to do so on its own. Thus, cooperation with the US should have caused no sleepless nights for Canadian politicians, despite the fact that these forces were defending the Canadian homeland. Still, it seems clear that Prime Minister Diefenbaker did not

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<sup>8</sup> This narrative will trace some of the important early developments and increasing interdependence of the two nations' air defence systems, but will not go into much detail on the actual formation of NORAD. This part has been covered admirably in two books by Joseph Jockel: *No Boundaries Upstairs: Canada, the United States, and the Origins of North American Air Defence, 1945-1958*, (Vancouver: University of British Columbia Press, 1987), and the recent *Canada in NORAD 1957-2007: A History*, (Kingston: McGill-Queen's University Press, 2007).

<sup>9</sup> Diefenbaker Canada Centre (DCC), MG 01/XII/A/556 North American Air Defense (NORAD), Memorandum entitled “NORAD”, 2 December 1957, 1.

<sup>10</sup> See Matthew Trudgen, “The Search for Continental Security: The Development of the North American Air Defence System, 1949-1956” (Kingston ON: unpublished PhD thesis from Queen's University, 2011); Matthew Trudgen, “The Transnational Relationship Between USAF and the RCAF with Respect to the North American Air Defence System, 1947-1956” in William March, ed., *Sic Itur Ad Astra: Canadian Aerospace Power Studies Volume 1: Historical Aspects of Canadian Air Power Leadership* (Ottawa: 2009), 75-83; Andrew Richter, *Avoiding Armageddon: Canadian Military Strategy and Nuclear Weapons, 1950-63* (Vancouver: University of British Columbia Press, 2002).

appreciate this nuance, did not anticipate the political firestorm the agreement would generate, and may have felt he had been duped by the advice given by senior military leadership and his Defence Minister, former Major-General George Pearkes. This, in turn, may have shaped his attitudes towards military advice. Indeed, Pearkes later testified to the House of Commons Special Committee on Defence in 1963 that “Unfortunately I am afraid – we stampeded the incoming government with the NORAD agreement.”<sup>11</sup> Whether because of his natural proclivities or due to a souring attitude resulting from the NORAD issue, Diefenbaker never seemed to trust or welcome military advice or perspectives, and never developed a logical decision-support structure to hear from appropriate subject matter experts as part of a rational decision-making process. In fact, in his later years as Prime Minister he eschewed the Cabinet Defence Committee that was designed to facilitate the flow of needed information, something perhaps reinforced by the experiences surrounding NORAD and continental air defence.<sup>12</sup> In his first years as Prime Minister, the Cabinet Defence Committee met more frequently, some sixteen times between when he took power in 1957 and the end of 1959. During that initial period of less than three years, Diefenbaker chaired ten of those meetings, leaving the rest to his Minister of National Defence, George Pearkes. In a similar period from 1960 to 1963, the Cabinet Defence Committee met only eight times with Diefenbaker attending six of those.<sup>13</sup> This pattern differed from Diefenbaker’s predecessors, William Lyon McKenzie King and Louis St. Laurent, “because of the particular style of the new Prime Minister”. Moreover, the military advice received through other sources was not as well informed as it had been about military matters because of the withdrawal of the two military officers in the Cabinet Secretariat.<sup>14</sup> In the case of Diefenbaker’s immediate predecessor, Louis St. Laurent, he attended virtually all of the Cabinet Defence Committee meetings, which were far more frequent than under Diefenbaker’s tenure. In his time as Prime Minister from 15 November 1948 to 21 June 1957, there were sixty-three CDC meetings. St. Laurent or his designate as acting Prime Minister attended every single one of them.<sup>15</sup> Numbers alone do not tell the whole story, as attendance does not mean interest or understanding, but the pattern under Diefenbaker is clear and supports what the first Chairman of the Chiefs of Staff Committee, General Charles Foulkes, later said about “how difficult it was to work with Diefenbaker. You couldn’t get any advice to him.”<sup>16</sup>

Whatever the reason, and despite having thought seriously about withdrawing from NORAD and “going on our own”<sup>17</sup>, initially Diefenbaker wrote that the “hard fact that NORAD was advancing Canadian interests and making Canadian sovereignty more, not less, secure seemed to escape

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<sup>11</sup> Christopher Young, “NORAD: military dud, political blockbuster,” *Ottawa Citizen*, 29 May 1965.

<sup>12</sup> DHH, Box 87 File 47, The Evolution of the Structure of the Department of National Defence 1945-68, Report to the Task Force on Review of Unification of the Canadian Armed Forces by R.L. Raymont, 30 November 1979, 5.

<sup>13</sup> Library and Archives Canada (LAC), Record Group (RG) 2, Records of the Privy Council Office, Cabinet Defence Committee Conclusions, volume 2749.

<sup>14</sup> DHH, Box 87 File 47, The Evolution of the Structure of the Department of National Defence 1945-68, Report to the Task Force on Review of Unification of the Canadian Armed Forces by R.L. Raymont, 9.

<sup>15</sup> LAC, RG 2, Records of the Privy Council Office, Cabinet Defence Committee Conclusions, volumes 2748-2749.

<sup>16</sup> University of Victoria Special Collections (UVSC), The Papers of MGen George Pearkes, accession 74-1 Box 7, “Interview with General Charles Foulkes” 9 March 1967, 14.

<sup>17</sup> DCC, MG01XIVD4 volume 7, File Avro Arrow, rough notes written in Diefenbaker’s hand, undated.

some paragons of diplomatic virtue.”<sup>18</sup> While certainly true at the time, Diefenbaker’s record on NORAD specifically, and the US in general, indicates a different set of beliefs. His handwritten notes as Prime Minister, which may more accurately reveal Diefenbaker’s true beliefs than any prepared statement, show that Diefenbaker felt that a close relationship with the United States in continental defence threatened Canadian sovereignty. While Prime Minister he wrote that “Interdependence in [sic] Continental sense cannot exist without derogation to sovereignty.”<sup>19</sup> This seems a common theme of the Diefenbaker government, and an enduring element of Canadian strategic culture from Confederation, that part of the definition of being ‘Canadian’ is not being American and the ever-present dance with being close to the US without being too close.<sup>20</sup> This dance is led as much by the personalities of the President and the Prime Minister than any other single factor. However, there are times when faced with an existential threat from, for example, the Soviet Union or modern terrorists where the greater threat to Canada and the continent must drive the decisions taken. Yet Diefenbaker’s approach to Canada-US relations seemed more heavily influenced by his perception of the threat to Canadian sovereignty from the US, something that reached its height with John F. Kennedy as President, and that the confused decision-support structure allowed these views to run unchallenged. The largely unanswered question this study will explore is whether this was all Diefenbaker’s fault, or was he just another victim of the confused defence decision-making structure he engineered?

### **Sovereignty Perception**

The sensitivity displayed routinely by the US in avoiding any perception of violating Canadian sovereignty stands in sharp contrast to a prevailing theme in much of the scholarship on Canada-US relations, that of *Coping with the American Colossus*.<sup>21</sup> Many of these scholars would have agreed with Diefenbaker’s later take on close cooperation with the US in continental defence – that it endangered Canadian sovereignty. The question of how to preserve sovereignty under such

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<sup>18</sup> John G. Diefenbaker, *One Canada: Memoirs of the Right Honourable John G. Diefenbaker*, Volume 3: *The Tumultuous Years 1962 to 1967* (Toronto: MacMillan Company of Canada Limited, 1977), 25.

<sup>19</sup> DCC, MG01X11F212 Volume 112, Foreign Affairs – Canadian-American Relations, handwritten notes by Diefenbaker, undated.

<sup>20</sup> There are numerous examples of political and diplomatic manoeuvring to protect Canadian sovereignty from perceived or real encroachment by the US. For an example of this see William Johnston, William G. P. Rawling, Richard H. Gimblett, John MacFarlane, *The Seabound Coast: The Official History of the Royal Canadian Navy, 1867-1939, Volume I* (Toronto: Dundurn Press, 2010), especially 172-73, 178, 181, and 216. But under Diefenbaker the acerbic tone was far worse than normal, leading to what some authors have pointed to as the lowest point in Canada-US relations. See Lawrence Martin, *The Presidents and the Prime Ministers*, 205-206. There also are aspects of sovereignty threat posed by the US that this study will not address. For examples of this see Donald Creighton, *Canada’s First Century, 1867-1967* (Toronto: Macmillan, 1970), George Grant, *Lament for a Nation: The Defeat of Canadian Nationalism* (Toronto, 1965).

<sup>21</sup> There are many examples of this kind of scholarship, and this study will challenge their assumptions. One example is David Carment, Fen Osler Hampson, and Norman Hillmer, eds., *Canada Among Nations 2003: Coping with the American Colossus* (Ottawa: Oxford University Press), 2003. The title of this collection implies there is an American Colossus and that it can be coped with. While at times it might seem so, often this is due to the personalities involved. In the case of the development of US Northeast Command, the Americans acted anything but a colossus. For other examples of this kind of scholarship, see Gerard S. Vano, *Canada: The Strategic and Military Pawn* (New York: Praeger, 1988); Lewis Hertzman, John Warnock, and Thomas Hockin, *Alliances & Illusions: Canada and the NATO-NORAD Question* (Edmonton: M. G. Hurtig Ltd., 1969).

circumstances has been addressed in scholarship often called 'defence against help'. This argument, first posed by Nils Ørvik in 1973 as a security strategy for small states, holds that large and powerful countries pose a threat to the sovereignty of their smaller neighbours unless the latter can provide credible defences.<sup>22</sup> In their absence, the more powerful country may be forced to defend itself through the smaller country in defiance of its sovereignty. Some have argued that the geographic position of Canada between the US and the Soviet Union put Canada "in a classic defence against help situation" during the Cold War.<sup>23</sup> The counter-argument is, of course, that from a defence perspective Canada and the US shared an existential threat to both in the form of the Soviet military and that reality, more than a belief that defences had to be prepared to prevent the US from defending itself across Canadian territory without concern over sovereignty, should have motivated a close association in continental defence and the contribution of appropriate and relevant defence forces. Diefenbaker, who was by no means soft on communism, never grasped or at least never accepted this counter-argument to 'defence against help'. While not entirely consistent in his thoughts on the US and the US military, Diefenbaker's understanding of sovereignty and what threatened it included the US, something that differed from the views of his military advisors. These attitudes are critical to an understanding of many of the decisions on defence made between 1957 and 1960.

### **From Coordination of Air Defence to a Bi-National Command**

The idea of integrating the Canadian and US air defence efforts had been the subject of much discussion as far back as the late 1940s. When Newfoundland joined Confederation in the spring of 1949, providing for its defence added a new dimension to the Canada-US defence relationship. This is because in 1941 the US had been granted 99 year leases on bases on the former British colony in exchange for destroyers with which to fight the battle of the Atlantic.<sup>24</sup> With the responsibility for the overall defence of Newfoundland now Canadian, and in the context of an American need to defend its bases against an increasingly aggressive Soviet threat, some measure of integrated air defences was needed. Indeed, despite there being no real requirement to involve or seek approval from the Canadians regarding the defence of these bases, the US officials took

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<sup>22</sup> Richard Evan Goette, "Canada, the United States and the Command and Control of Air Forces for Continental Air Defence from Ogdensburg to NORAD, 1940-1957" (PhD thesis from Queen's University, 2009), 11; also see Whitney Lackenbauer, "From 'Defence Against Help' to 'A Piece of the Action': The Canadian Sovereignty and Security Paradox Revisited," University of Calgary Centre for Military and Strategic Studies Occasional Paper No. 1, May 2000; Nils Ørvik, "Defence Against Help – A Strategy for Small States?," *Survival*, Volume 15 Issue 5 (September-October 1973); Nils Ørvik, "The Basic Issue in Canadian National Security: Defence Against Help/Defence to Help Others," *Canadian Defence Quarterly*, Volume 11 Number 1 (Summer 1981).

<sup>23</sup> Goette, "Canada, the United States and the Command and Control of Air Forces for Continental Air Defence from Ogdensburg to NORAD, 1940-1957", 11.

<sup>24</sup> For this and an analysis of Allied aid to Britain during World War Two, see J.L. Granatstein, *Canada's War: The Politics of the McKenzie King Government, 1939-1945*, (Toronto: Firefly Books, 1990); H.C. Allen, *Britain and the United States* (New York: St. Martin's Press, 1955); R.G.D. Allen, "Mutual Aid Between the US and the British Empire, 1941-1945", *Journal of the Royal Statistical Society*, Volume 109, No. 3 (1946, p243-277); Conrad Black, *Franklin Delano Roosevelt, Champion of Freedom* (New York: Public Affairs, 2003); Sir Richard Clarke, *Anglo-American Economic Collaboration in War and Peace, 1942-1949* (Oxford: Oxford University Press, 1982); Alan Dobson, *U.S. Wartime Aid to Britain, 1940-1946* (London: Croom Helm, 1986).

great pains to keep Canadian officials apprised of the plans for the intended establishment of a Northeast Command.<sup>25</sup>

American intentions regarding the stand up of the new command were relayed through the US Permanent Joint Board on Defence (PJBD) Chairman to his Canadian counterpart, LGen A.G.L. McNaughton. Showing considerable concern for Canadian sensitivities, the US Command would be directed to “cooperate closely with appropriate Canadian authorities in the discharge of his peacetime responsibilities, and in an emergency would operate in accordance with combined plans.”<sup>26</sup> In a typical but in some ways an understandable reaction, the Canadian response to the planned name for the command, Northeast Command, reflected a fear that it might appear as though the US was assuming responsibility for the defence of part of Canada. Such a fear was a predictable political and bureaucratic reaction, as even close upon the end of the Second World War, on the Canadian side anti-Americanism was always close beneath the surface of Canada-US relations.<sup>27</sup>

External Affairs was particularly concerned about the new US command. It felt the command’s terms of reference were “too broad and obscure” and were particularly concerned about the command’s suggested name. The implications, to those unfamiliar with defence issues and the 1946 US Unified Command Plan, would be that the US was in command of Canadian territory.<sup>28</sup> After negotiation it was suggested “the new command should be titled U.S. Forces, Northeast.”<sup>29</sup> While the US Joint Chiefs of Staff rejected this name change, there was a degree of restraint and understanding of Canadian sensitivities displayed. In the end, the Command’s name was changed to United States Northeast Command; a small change, perhaps, but one offered in an attempt to maintain good relations with Canada. Moreover, in order to break the logjam over the lease of Goose Bay, the issue of operational control of US forces on Canadian sovereign territory was referred to the Military Cooperation Committee (MCC). A solution was reached on 21 November 1952 by which the RCAF Air Defence Command would have operational control over all US air defence forces. Its rules of interception and engagement would be observed by those forces, and “no interception of potentially hostile aircraft would be made by U.S. aircraft except on the authority of a Canadian.”<sup>30</sup> Given the US was under no obligation to discuss the naming of its commands with the Canadian government, this display of appreciation of Canadian sensitivities must have been in an effort to keep and enhance the support of an ally.

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<sup>25</sup> National Archives and Records Administration (NARA), Record Group 333 Permanent Joint Board on Defence, Entry 17-A Box 2, Top Secret General Correspondence, 1941-1956, “Establishment of the Northeast Command,” 20 April 1949.

<sup>26</sup> NARA, RG 333 Permanent Joint Board on Defence, Entry 17-A Box 2, Top Secret General Correspondence, 1941-1956, Memorandum from Major General Guy Henry to Lieutenant-General A.G.L. McNaughton, 2 May 1949.

<sup>27</sup> J.L. Granatstein, *Yankee Go Home? Canadians and Anti-Americanism* (Toronto: Harper Collins Publishers Ltd., 1996), 89-97.

<sup>28</sup> For a brief outline of the Unified Command Plan, see Lt.Col. Marcus Fielding, “The United States Unified Command Plan”, *Canadian Military Journal*, vol.7 no. 3, (Autumn 2006).

<sup>29</sup> Richard Goette, “Canada, the United States and the Command and Control of Air Forces for Continental Air Defence from Ogdensburg to NORAD, 1940-1957”, 211.

<sup>30</sup> David J. Bercuson, “SAC vs. Sovereignty: The Origins of the Goose Bay Lease, 1946-52”, *Canadian Historical Review*, LXX, 2 (1989), 221.

Indeed, this is a common theme in the post-World War Two defence relationship. Melvin Conant, author of *The Long Polar Watch*, has argued that the US preferred “to carry its partners with it rather than to dominate and to over-ride them.”<sup>31</sup> In the case of Canada, they took some pains to accommodate Canadian sensitivities, but often only after those sensitivities were expressed. As David Bercuson points out, “Canadian leaders were acutely sensitive to the need to protect Canada’s sovereignty not only from Soviet attack, but from American encroachment as well.”<sup>32</sup> At this time, in a climate of political leadership with wartime experience with the US, “Canadian diplomats, political leaders, and the military shared with their counterparts in Washington basic assumptions about the Soviet Union, the causes of the Cold War, and the dangers that communism posed to the West.”<sup>33</sup> They demonstrated no interest, unlike later years, in attempting to control what Strategic Air Command bombers would do in the case of war, but did “assert Canada’s ultimate sovereignty and control over US forces in the northeast...Through deliberate delay, hard bargaining, and outright refusal, Canada achieved many of its overall objectives.”<sup>34</sup>

This was but one step in the integration of the Air Defence forces from each country – the acknowledgement that the “air defence of North America was a common problem” and that US and Canadian air defence forces would have to act in unison in some fashion.<sup>35</sup> The nature of the shared threat and the flexibility inherent in air power demanded it. In 1951, for example, the PJBD received briefings from Royal Canadian Air Force and United States Air Force representatives, each of whom asked the board to consider “arrangements under which, on a reciprocal basis, fighter aircraft of one country, controlled by its national air defence system, would be permitted to enter the other country...for the purpose of intercepting unidentified aircraft about to cross the international boundary.”<sup>36</sup> The board added restrictions to govern the circumstances under which aircraft from each country could cross the border and conduct an investigation, and made it clear that no “attempt would be made to order the intercepted aircraft to land, nor to open fire except when the intercepted aircraft [was] over the national territory of the air force performing the interception”.<sup>37</sup> These were perfectly reasonable arrangements following the detonation of a Soviet nuclear weapon in 1949, and its development of jet bombers with transcontinental delivery capabilities. Shortly, however, the threat posed by the Soviet Union would bring a sense of urgency to these discussions; in August 1953, the Soviets detonated a hydrogen bomb, driving home that threat to North America. Indeed, this act may have shelved Canadian opposition to increased participation with the US in continental air defence. Near the

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<sup>31</sup> Melvin Conant, *The Long Polar Watch: Canada and the Defense of North America* (New York: Harper’s, 1962), 183. For similar views see Ronald S. Ritchie, “Problems of a Defence Policy for Canada,” *International Journal*, Vol. 14 No. 3 (Summer 1959), 212.

<sup>32</sup> David J. Bercuson, “SAC vs Sovereignty: The Origins of the Goose Bay Lease, 1946-52”, 221.

<sup>33</sup> *Ibid.*

<sup>34</sup> *Ibid.*, 222.

<sup>35</sup> NARA, RG 218 Joint Chiefs of Staff Records Entry 943011 Box 36, File CS 092 (9-10-45) Section 24 Enclosure ‘B’, Comment by RCAF PJBD Member to USAF PJBD Member, 4 December 1950; DCC, MG01XIIA556 Volume 20 NORAD, Press Release Issued by Headquarters North American Air Defense Command, NORAD, Office of Information, “The NORAD Story”, 5; DCC, MG01XIVD26 Volume 10, Memorandum to the Cabinet Defence Committee, “Continental Air Defence – Foreign Policy Implications, 14 August 1958, 2.

<sup>36</sup> NARA, Record Group 59 General Records of the Department of State PJBD Records, File: 51/4 Draft PJBD Recommendation on Interceptor Flights by RCAF and USAF, 4 January 1951, 1.

<sup>37</sup> *Ibid.*, 2.

end of the 1950s, the slow integration of the air defence systems of both countries resulted in the formation of the bi-national NORAD.

Coincidental with the successful test of the Soviet hydrogen bomb in 1953, Avro began early development of the CF-105 interceptor in response to RCAF requirements.<sup>38</sup> Thus, the evolution from these early coordinative efforts in continental air defence to a bi-national command was not as great a leap, or a threat to sovereignty, as many thought in 1958. Admittedly, the rough ride largely was from those in opposition to Conservative Prime Minister John Diefenbaker, who saw an opportunity to embarrass the government, but its effect was to reinforce Diefenbaker's natural distrust of military advice.<sup>39</sup> This, in turn, made it far more difficult to alter any perceived misconceptions at the highest levels of the Canadian Government. As noted earlier, the first Chairman of the Chiefs of Staff Committee, General Charles Foulkes, later recalled "how difficult it was to work with Diefenbaker. You couldn't get any advice to him."<sup>40</sup> Thus, although some military advisors held different views on the enduring nature of the Soviet bomber threat to North America to their political masters, and even amongst themselves, these perspectives rarely reached Diefenbaker except through, most often, the filter of the Secretary to the Cabinet and Clerk of the Privy Council, RB Bryce. It is therefore no surprise that important defence decisions seem to have been made in an *ad hoc* fashion without needed information. That included the lack of accurate information on the nature of the threats to North America and how quickly they were evolving, the perception of the US military and political leadership on what Canada could provide for continental defence, as well as any developed courses of action to define and meet defence requirements when plans changed. The end result of this somewhat confused defence decision-making process was that the government wandered from one decision to another without a logically derived plan. Instead of hearing from those who understood the threats faced and using that knowledge to define a clear role for the RCAF in continental air defence, the Diefenbaker government ignored, or at least did not pay sufficient attention to, the threat assessments showing the enduring nature of the threat from Soviet bombers to North America and the speed with which Inter-Continental Ballistic Missiles (ICBM) would become the main means by which the Soviets would threaten the continent. In any event, this latter threat was something beyond Canadian ability while the Soviet bombers were not, and the government failed to pay appropriate attention to the perspectives of both its senior air force officers and the Commander-in-Chief NORAD (CINCNORAD), who was charged with the air defence of North America and thus had the clearest perspective and the best understanding of that aspect of the Soviet threat and what was needed to meet it successfully.

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<sup>38</sup> Donald C. Story and Russell Isinger, "The Origins of the Cancellation of Canada's Avro CF-105 Fighter Program: A Failure of Strategy," *The Journal of Strategic Studies*, 30 no. 6 (December 2007), 1025.

<sup>39</sup> Directorate of History and Heritage (DHH), Box 87 File 47, The Evolution of the Structure of the Department of National Defence 1945-68, Report to the Task Force on Review of Unification of the Canadian Armed Forces by R.L. Raymont, 30 November 1979, Annex 'A' The Organization of Higher Control and Coordination in the Formulation of Defence Policy, 1945-1964, 5. Also see Patricia I. McMahon, *Essence of Indecision: Diefenbaker's Nuclear Policy 1957-1963* (Kingston ON: McGill-Queen's University Press, 2009). Diefenbaker's relationship with Minister of National Defence George Pearkes soured after the NORAD agreement, further clouding the environment and preventing the easy receipt of military advice and information. See Matthew Gurney, *Leaders in Conflict: Diefenbaker, Kennedy, and Canada's Response to the Cuban Missile Crisis* (Waterloo ON: unpublished MA thesis from Wilfrid Laurer University, 2009), 39.

<sup>40</sup> UVSC, The Papers of MGen George Pearkes, accession 74-1 Box 7, "Interview with General Charles Foulkes" 9 March 1967, 14.

## American Perceptions of Air Power and Air Defence

The central view amongst senior USAF officers of the time, and likely since, was that air power was best used in an offensive role.<sup>41</sup> Its potential as a war-winning tool had, many have argued, been proven at the end of the Second World War with the dropping of atomic bombs on Japan. Its greatest value stemmed from its ability either to deter enemy action or, if that failed, by forcing enemy collapse through the infliction of crippling damage. While defensive operations had their place, serving to bolster civilian morale and will to resist and allow the offensive striking force the opportunity to launch, they were of secondary importance to the offensive use of air power. General White, Chief of Staff of the USAF from 1957 to 1961, put it succinctly by saying that the debate boiled down “to a very simple statement. Defense cannot win a war.” He went on to say that even an invulnerable defence could prevent defeat but could not by itself “enable us to win.”<sup>42</sup> However, unlike earlier statements, he did acknowledge that only through adequate offensive forces “in addition to our defensive [sic] can we deter him from attacking.” But if deterrence failed, the USAF’s offensive forces had to be sufficient to defeat any adversary.<sup>43</sup>

In a 1957 memorandum on USAF priorities, White made his early views on US air power quite clear.<sup>44</sup> This memorandum argued that large US offensive air forces would be needed “for deterrent purposes and retaliatory operations, for the direct defense of the continental U.S. and for the collective security of the Free World.” Furthermore, “no major change in this basic policy [was] foreseen, nor believed to be desirable until and unless a major change occur[ed] in the international political climate.”<sup>45</sup> While few would object to this statement of military strategic goals, the other services would have objected to the articulation of how to attain them. The report went on to say that only “intercontinental air offensive forces based in the U. S. and protected by suitable air defense forces, can win a general war and hence deter the Soviets from initiating such

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<sup>41</sup> General Curtis LeMay probably was the most vocal proponent of the offense, but this was not solely a parochial interest as the head of the Strategic Air Command. Many other senior USAF leaders, including General ‘Tooey’ Spaatz, were schooled in World War Two to understand that air power was an offensive weapon. For examples of the prevalence of this thinking, see Library of Congress Manuscript Division (hereafter cited as LC), Papers of Hoyt S. Vandenberg, Box 83, Memorandum for General Vandenberg from General Doolittle, “The Alsop Articles”, 25 March 1953, 1; DDE, Memorandum for the Secretary of Defense from the US Joint Chiefs of Staff, 8 August 1953, 3; United States Air Force Academy Special Collections (USAFASC), MS 22, Papers of Nathan Twining, Box 1, Folder – Correspondence, “Letter to Mr. Lawrence Spivak,” 24 September 1953, p1-2; USAFASC SMS 649 Reade Tilley Papers, Series 3 Folder 4, Speech to the Post of the American Ordnance Association, “America’s Answer to the Threat of Aggression,” 7 December 1953; LC, Nathan F. Twining Papers, Box 64, Address by Harold E. Talbott, Secretary of the Air Force at the Fiftieth Anniversary of Powered Flight, 16 December 1953, 2-3; LC, Curtis E LeMay Papers, Box 194, Letter from Major General John Gerhart, Special Assistant to the JCS for NSC Affairs, to General Curtis LeMay, 14 January 1954, 1; USAFASC, SMS 649, Reade Tilley Papers, Series 3 Folder 8, Speech by General Curtis LeMay to the Society of Automotive Engineers, 4 March 1954, 6; NARA, RG 341, Records of Headquarters, USAF, Box 1, Proceedings of the Commander’s Conference, Eglin AFB, 24 May 1954, 61.

<sup>42</sup> LC, Papers of Thomas D. White, Box 51, Speeches by General White (January through June 1960), Address by General Thomas D. White Chief of Staff, U.S. Air Force Scientific Advisory Board Spring Meeting, 20 April 1960, 2.

<sup>43</sup> *Ibid.*, 3.

<sup>44</sup> LC, Papers of Thomas D. White, Box 6, Folder “Air Force Objectives”, November 1957.

<sup>45</sup> *Ibid.*, 1.

a war.” Somewhat controversially and arguably parochially phrased, it was claimed that these “forces must be provided as necessary to accomplish that purpose, with all other forces, of all three Services, eliminated or reduced as necessary to permit the provision of these forces.”<sup>46</sup> So important was SAC’s retaliatory forces, White argued, that international commitments should be reduced or eliminated to ensure their provision.<sup>47</sup>

More telling than its articulation of the views of the Chief of Staff of the USAF was in a marginal comment tallying the general views of other senior USAF leaders on the arguments presented. As expected, both General Curtis LeMay and his successor as Commander-in-Chief (CINC) Strategic Air Command, General Thomas Power, generally approved these sentiments. What is interesting is the number of senior USAF officers who did not. Of those, the most notable were the CINCNORAD, General Partridge, and his successor General Kuter.<sup>48</sup> The latter had significant experience in tactical air power in the Second World War, and this experience likely gave him a different perspective on the roles of the other services in any future war.<sup>49</sup> Others included General Atkinson, the Commander of the US Air Defence Command, and General Weyland who served as the Air Component Commander with Patton’s Third US Army in Europe during World War Two, and later as the Commander of the USAF Tactical Air Command. This did not negate the general view of USAF leadership that air power was best used in an offensive role, but since so many senior and key figures disagreed with the CAS about the war winning capability of the USAF’s SAC, it does illustrate the degree to which opinions differed on how much effort should be placed on air defence, and on the roles of the other services. By extension, then, it is reasonable to conclude that a meaningful Canadian effort in continental air defence, both in terms of early warning radars which were being provided and also through the equipping of as many air defence squadrons as could be afforded, would have been appreciated by the senior US military leadership.

The view that the path towards true security for America lay in strengthening SAC’s offensive nuclear bomber forces supported by suitable air defences was shared by US political leadership. Both the Chairman of the US Joint Chiefs of Staff, Admiral Radford, and the US Secretary of Defense, Charles Wilson, argued against building up defence forces at the expense of SAC, which is not to say they would not have appreciated a serious Canadian effort to bolster these forces. At a 14 September 1953 meeting of the NSC Admiral Radford expressed doubts about focusing on US fighter and anti-aircraft programs, concurring with the US President that these were programs that could be overtaken by advancing technological change.<sup>50</sup> While true, this oft-used argument about technology rendering defence irrelevant can easily be overstated. At most, rapid technological change requires the adoption of platforms with some flexibility to enable them to deliver military capability that can keep pace. The ongoing upgrades to Canada’s CF-18 and Halifax class Frigates are examples of this. Thus, although the general feeling amongst all senior US military and civilian leadership was that the best use of air power was through SAC’s offensive bomber force, there was a strong feeling that having robust air defences contributed to

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<sup>46</sup> *Ibid.*

<sup>47</sup> *Ibid.*

<sup>48</sup> *Ibid.*

<sup>49</sup> Brad W Gladman, *Intelligence and Anglo-American Air Support in World War Two: The Western Desert and Tunisia, 1940-43* (London: Palgrave MacMillan, 2009), 142, 159, 174, 179.

<sup>50</sup> Richard M. Leighton, *History of the Office of the Secretary of Defense: Strategy, Money and the New Look 1953-1956*, Vol. III (Washington DC: Historical Office, Office of the Secretary of Defense 2001), 128.

the deterrent value of SAC's bombers by ensuring enemy uncertainty that his attack would reduce the retaliatory capacity of the US forces. Moreover, the tactical warning and delays to attacking forces provided by parts of the air defence system allowed timely action to:

- Alert and selectively employ U.S. military forces
- Preserve national leadership and military authority
- Alert the civilian population.<sup>51</sup>
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These general feelings were articulated clearly in the US National Security Council (NSC) 5802/1 in early 1958, which gave predominance to "measures to strengthen our effective nuclear retaliatory power as a deterrent and to improve our active defenses...essential to the protection of the U.S. capability for prompt nuclear retaliation."<sup>52</sup>

Thus, at both the senior military and civilian leadership levels, there is every reason to believe that a significant contribution to continental air defence would have been well appreciated in Washington. Again, while not the primary role of air power, it was understood that air defence was a necessary part of ensuring the survival and counter-punch of the retaliatory force for the foreseeable future. This was a niche in which the Canadian government could fit the RCAF, and would be a role in line with Canadian interests and Canadian capabilities. Moreover, given that Canada could not be expected to participate in the strategic offensive, in the context of countering the Soviet bomber threat this was an area in which Canada could make a meaningful, perhaps vital, contribution to continental defence.

### **RCAF Views on Air Power and Air Defence**

Canadian airmen understood the nature and value of air power as well as their American counterparts. The air forces of both countries had engaged in the air war over Germany and occupied territories during the Second World War, and most of the senior leaders in both air forces during the early years of the Cold War were veterans of that experience. These men knew that air power was best used offensively. Air defence had a critical role in deterrence, including national morale and will to resist, but should that fail air defence forces would be central in ensuring national survival. But Canadian airmen also understood that wars would not be won through defence, and the challenge of detecting, intercepting and destroying significant numbers of attacking enemy bombers was daunting to say the least. Indeed, many senior officers from both air forces, schooled in the experience of World War Two, felt that only a small number of attacking aircraft would be destroyed by defending fighters.<sup>53</sup> Even with improvements to the continental air defence system, which caused eager scientists to claim kill probabilities in the range of 95-99 percent, actual air defence exercises "revealed that a significant percentage of the attacking forces were not detected and identified as attackers and that an equally significant

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<sup>51</sup> LC, Papers of General Curtis LeMay, Box 140, Air Defense Command Memorandum "Doctrine for the Unified Defense of the United States Against Air Attack", 1 July 1963, 4.

<sup>52</sup> DDE White House Office, National Security Council Staff: Papers, 1948-61, Disaster File, Box 23, File Continental Defense 1957-61 (1), National Security Council 5802/1, U.S. Policy on Continental Defense, 19 February 1958, 1.

<sup>53</sup> USAFASC, Papers of Nathan Twining (MS 22), Box 15, "Suggested Remarks for General Twining, Civilian Orientation Conference of Mayors, 13 November 1951, Pentagon," 13 November 1951; LAC, RG 2 volume 2749 File part VIII, Cabinet Defence Committee Documents, The one hundred and seventh meeting of the Cabinet Defence Committee, 8 November 1955, 5.

percentage of forces classified as attackers were not intercepted for numerous and various reasons.”<sup>54</sup> With each enemy bomber carrying nuclear or thermonuclear weapons, the resulting damage from even a few surviving bombers would be devastating. Hence, placing too much hope in current or anticipated defensive systems was of secondary importance to sufficient warning to allow SAC bombers to get off the ground to retaliate against a Soviet attack. Radar coverage and active air defence were a part of that overall deterrent value. Moreover, taking part in the nuclear deterrent force threatening to strike at the Soviet Union was beyond the practical capabilities of the RCAF and certainly beyond the Canadian political appetite, although defence officials did give some passing thought to doing so.<sup>55</sup> As Joseph Jockel has written, the RCAF “had been obliged to shed its hopes of holding on to a strategic bombing role and instead had concentrated on fighter aircraft with air defence as its prime combat mission.”<sup>56</sup> Thus, only in the defence against attacking Soviet bombers would the RCAF play a role, and sovereignty demanded an appropriate Canadian contribution to meet this enduring threat. Indeed, the St. Laurent government, with Brooke Claxton as its Minister of National Defence, had stated that the “primary role of the RCAF [was] the air defence of Canada.”<sup>57</sup>

Despite Claxton’s direction, some Canadian writers on air power, such as RCAF Staff College Professor J. I. Jackson, pointed to the power of the nuclear response force being the best form of air defence. In Jackson’s words,

the real air defence is the thermonuclear retaliatory or counter force, supported by the radar warning system that will allow it to take off before it can be destroyed on the ground. The defensive interceptor and electronic weapons are no longer the teeth of the air defence system, but rather comprise a subsidiary arm of the warning net, and have the same purpose in this as civil defence and defence against missile bearing submarines in helping to dissipate the casualties of the attack.<sup>58</sup>

Others, such as Air Chief Marshal Keith Hodson, argued that greater peacetime air defences served the dual purpose of protecting the retaliatory power of SAC, but also were essential elements in deterrence and response to Soviet nuclear armed bombers. While his emphasis was

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<sup>54</sup> DDE, White House Office, Security Council Papers, 1948-61, Disaster File, Box 23, File Continental Defense 1954 (8), Memorandum for the Secretary of Defense, Continental Defense – Guidelines Under NSC 162/2, 19 July 1954, 7; also see DDE, White House Office, Security Council Papers, 1948-61, Disaster File, Box 23, File Continental Defense 1954 (8), Memorandum for NSC Planning Board Consideration, Continental Defense, 20 July 1954, 3-4.

<sup>55</sup> UVSC, Papers of MGen George Pearkes, Acc 74-1 Box 13, File North American Air Defence – Notes, Press Releases 1958-1969, Memorandum on North American Air Defence, undated, 12.

<sup>56</sup> Jockel, *Canada in NORAD*, 21-22.

<sup>57</sup> LAC, MG 32 B5, Papers of Brooke Claxton, volume 96, Canadian-American Relations Part 1, “US/Canada Defence Collaboration and its Inherent Problems”, undated, 5.

<sup>58</sup> J. I. Jackson, “Air Power and Future Wars” *RCAF Staff College Journal*, (1957), 30, quoted in Richard Goette, “A Snapshot of Early Cold War RCAF Writing on Canadian Air Power and Doctrine” *The Royal Canadian Air Force Journal*, Volume 1, Number 1, (Winter 2012), 54. Also see Randall Wakelam, *Cold War Fighters: Canadian Aircraft Procurement, 1945-54* (Vancouver: UBC Press, 2011).

on the offensive use of air power, a view shared by his American colleagues, he did not ignore air defence as a legitimate and useful role for the RCAF.<sup>59</sup>

One of the most prolific authors on air power in Canada during the early Cold War was Air Marshal Clare Annis, who was one of the few to on the one hand acknowledge the potential of the offensive use of air power, but whose main focus was the air defence role. In one article he likened the air defence-in-depth of North America to a game of rugby, in which the

fighters are the line of the rugby game. Their duties are two-fold. It is to hold the line and prevent the enemy bombers from getting through. We know that for as long as the line holds, the enemy bombers won't get through very far or very often. The second duty of the fighters is to wear down and finally crumple the enemy line. If that is achieved our bomber backfield can roam at will.<sup>60</sup>

The geostrategic position of the nation meant that its territory would, at the very least, serve as the killing ground for attacking Soviet bombers, and that the US could be counted upon to take whatever action it felt necessary to enable the launching of its main striking force, the Strategic Air Command bombers. Thus, there was no denying that the air defence of North America had to be considered a common problem and like it or not, Canada would be a part of that scenario.<sup>61</sup> It was in Canadian interests to find a role for itself, within its socio-economic means, in dealing with this common problem. Moreover, there was an opportunity to deliver something that served domestic political interests, and that likely would be appreciated in Washington – the sharing of the air defence burden beyond manning radar stations and contributing staff to NORAD, which would free US resources for the offense. The latter was something in which Canada would not participate. This opportunity was not overlooked entirely, but the resulting decisions reflect a lack of a clear vision and perhaps political courage in the definition of an appropriate role for the Canadian military in the common defence of North America against what all intelligence assessments pointed to as the enduring threat from Soviet bombers.

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<sup>59</sup> Richard Goette, "A Snapshot of Early Cold War RCAF Writing on Canadian Air Power and Doctrine", 55.

<sup>60</sup> *Ibid.*, 58.

<sup>61</sup> DCC, MG01XIIA556 Volume 20, North American Air Defence, NORAD, 2 December 1957, 5; NARA, RG 218, Joint Chiefs of Staff Records, Entry 943011, Box 36, File CS 092 (9-10-45), Section 24, Enclosure 'B', Comment by RCAF PJBD Member to USAF PJBD Member, 4 December 1950; LAC, MG 31 E83, Papers of H. Basil Robinson, Volume 8, "Canada-United States Defence", 23 July 1953, 1; DCC, MG01XIIF335 Volume 117 NORAD, Memorandum to Cabinet, "Integration of Operational Control of Canadian and Continental United States Air Defence Forces in Peacetime" 22 July 1957, 1.

## 2 Changing Perceptions of the Soviet Threat: The ‘Sputnik’ Effect

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The late 1950s and early 1960s saw what some at the time and since felt was a period of rapid change in the threat environment, one in which the bomber would rapidly be replaced with the ICBM as the main means by which the Soviets would threaten North America. The shock and alarm expressed by Western populations after the successful launch of Sputnik 1, the first artificial satellite to be put into earth’s orbit, on 4 October 1957 was palpable,<sup>62</sup> and was based on a widespread fear that the Soviets had an insurmountable lead on the US in the development of missiles which could be used to rain down destruction from space. While eventually the ICBM would become a main element of the Soviet threat, until the late-1960s this was not the case; by the late 1950s intelligence supported the position that there was no missile gap of any consequence.<sup>63</sup> Indeed, John F. Kennedy was successful in his Presidential bid partly due to his emphasis of the perceived missile gap with the Soviets, something President Eisenhower knew to be false but about which he could not speak.<sup>64</sup> Through intelligence sharing agreements and NORAD, this intelligence and expert opinion of those charged with threat assessment and air defence could have reached the Prime Minister, and may have resulted in more knowledgeable decision-making regarding air defence against an enduring Soviet bomber threat. Thus, even before the cancellation of the Avro Arrow, information was available to the Prime Minister that reinforced the need for an advanced interceptor as the main line of defence against the Soviet bomber threat, perhaps supplemented with the capabilities offered by the Bomarc missile. This is not to say that the government needed to pursue the full development of the Arrow, but it may have forced a closer look at its development and deployment for continental operations in defence of North America and perhaps at a role for the aircraft in Europe to equip the 1<sup>st</sup> Canadian Air Division with a Canadian made fighter. At the very least, if the Arrow was cancelled some concrete measures needed to be taken to replace the obsolescent fleet of CF-100 aircraft serving as the Canadian contribution to the air defence of North America, *before* the aircraft was cancelled.<sup>65</sup>

Regarding continental defence, Canadian military authorities assessed that a central part of Soviet strategy in a major war with NATO was the prevention of effective retaliatory strikes against the Soviet Union. An important secondary aim would be neutralizing “the manpower and industrial resources of North America.”<sup>66</sup> Moreover, given that US Strategic Air Command, which at this time was NATO’s main retaliatory force, was located mainly in the US, it was assumed that Soviet air attacks would “be made on North America from the outset of a major war, directed against SAC bases, some industrial and population centres, and ports.”<sup>67</sup> In order to succeed, this

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<sup>62</sup> William J. Jordan, “Soviet Fires Earth Satellite Into Space”, *New York Times*, 5 October 1957. Accessed on 11 August 2011 at <http://www.nytimes.com/partners/aol/special/sputnik/sput-01.html>.

<sup>63</sup> John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of Postwar American National Security Policy During the Cold War* (Oxford: Oxford University Press, 1982), 206.

<sup>64</sup> *Ibid.*, 165.

<sup>65</sup> For details on the early development of Canada’s Cold War fighters, see Randall Wakelam, *Cold War Fighters: Canadian Aircraft Procurement, 1945-54* (Vancouver: UBC Press, 2011).

<sup>66</sup> DHH, Raymont Papers 72/1223 Series IV File 2126 A Brief On the Report to the Interdepartmental Committee on the War Book by the Working Group on War Measures, 24 January 1957, section II, 2.

<sup>67</sup> *Ibid.*

strategy needed to catch the majority of SAC aircraft on the ground, and thus the belief that the Soviets would “subordinate all other considerations to the achievement of surprise, and consequently there may be little or no strategic warning of attack.”<sup>68</sup>

The belief in the decreasing importance of the manned bomber as a major threat to North America gained support in the late 1950s and early 1960s, especially by political figures, and was one area where some senior military leaders differed from their political masters. It is likely that both were partly motivated by narrow interests, with politicians interested in cost savings and Air Force officers seeking to avoid losing the RCAF’s unequal share of defence spending, both of which still resonate in defence debates. But the change in threat perception even from late 1955 to early 1959, just over three years, was significant and probably influenced by the ‘Sputnik effect’. In late 1955, for example, the Cabinet Defence Committee assessed that the superior performance of the CF-105 Avro Arrow was “essential in the light of the threat” from Soviet bombers, a threat that would “persist throughout the life of the CF105”.<sup>69</sup> By late 1958, however, the Conservative government of John Diefenbaker began to view things somewhat differently. As Diefenbaker himself wrote, “technological change has come too fast...who in 1952 or 3 could have predicted ICBMs – Sputniks – Moon Satellites?”<sup>70</sup> In fact, these developments were entirely predictable, and were in no way a revolution in military affairs. Rather, they simply were of the evolution of rocket and nuclear weapon technology developed during the Second World War. The ability to come to terms with changes in the threat environment by asking the right people for frank and rigorously derived perspectives on the nature of that change continually eluded Diefenbaker. Even had he sought such opinions, both the national security structure and insular positions likely would have diminished that advice.

Despite the growing Canadian political belief that the ICBM would replace the manned bomber as the main means by which the Soviets would threaten North America, the RCAF Chief of the Air Staff, Air Marshal Dunlap, pointed to intelligence estimates indicating that the “Soviet manned bomber will be arrayed against us for some years to come.”<sup>71</sup> Moreover, and quite correctly, other intelligence demonstrated that the rate of Soviet construction of ICBMs had been far less than initially forecast. The so-called ‘missile gap’, which Kennedy used as a main feature of his 1960 Presidential election campaign, did not exist. Dunlap went on to say that the manned bomber was the most dangerous threat to hardened ICBM sites and control centres because at that time they were more accurate than ICBMs, could carry several nuclear weapons, thus were more flexible and could be recalled.<sup>72</sup> Intelligence from a variety of sources reached the Minister of National Defence, and should have reached the Prime Minister had the decision-making structure been less confused, showing that the ICBM threat would overtake the bomber threat only in the late 1960s, and even then the Soviets would still be able to put hundreds of bombers over North American targets.<sup>73</sup> All of this supported his position that Canada would be “compelled to retain good defences against the Soviet bomber threat for the foreseeable future.”<sup>74</sup>

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<sup>68</sup> *Ibid.*

<sup>69</sup> LAC, RG2 Vol. 2752, Cabinet Defence Committee Documents, “Memorandum to Cabinet Defence Committee: Reappraisal of the CF105 Development Programme”, 4 November 1955, 1.

<sup>70</sup> DCC, MG01/XII/B/9 Avro Arrow file n.d., 1958-Jan. 1959, handwritten note.

<sup>71</sup> DHH, Raymont Papers, 73/1223 Series 1 File 306, Memorandum to the Minister from the Chief of the Air Staff, *Canadian Bomarc Squadrons*, 22 February 1963.

<sup>72</sup> *Ibid.*

<sup>73</sup> The National Intelligence Estimated indicated that 400-500 aircraft might be committed to strikes against North America, while the USAF estimated as many as 750 aircraft. See John F Kennedy Presidential

This assessment was completely in accordance with the agreed Canada-US intelligence assessment of the air threat to North America, which indicated that the bomber threat would continue through the 1960s. Curiously, Canadian and American intelligence authorities were “not wholly in agreement on the extent of its duration and the rate at which it will diminish in strength in relation to the missile threat.”<sup>75</sup> Indeed, the American National Intelligence Estimate (NIE), the NATO Standing Group, and the Canadian Joint Intelligence Committee views all differed, with the Americans believing the bomber would continue to be a significant threat longer than their Canadian counterparts. In particular, NORAD intelligence staff went further, disagreeing with many of the assumptions underpinning the NIE including that “a mass attack by manned bombers would throw away the initiative of surprise” and thus the Soviets would no longer pursue these weapons.<sup>76</sup> The CINCNORAD maintained that there was no assurance of warning before a Soviet bomber attack, that “a sneak attack by bombers is feasible and, therefore, likely to be followed by the mass attack.” Furthermore, and possibly influenced by provincial interests, CINCNORAD questioned the assumption that a nuclear deterrent was sufficient to maintain peace, asserting that preparations to meet the Soviet bomber fleet were essential to the preservation of the deterrent.<sup>77</sup> The lack of a forceful consensus prevented the development of a detailed threat estimate that could be used to determine specific defence requirements. At times of rapid changes to aspects of the security environment, a clear dialogue based on sound analysis and frank, operationally-focused advice between the military and political leadership is all the more essential in order to ensure, to the extent possible, that defence investment delivers relevant capabilities.

While Canadian defence officials largely agreed that Soviet bombers and increasingly Soviet ICBMs would be the main danger to North America in the late 1960s, neither the Army nor the Royal Canadian Navy (RCN) accepted this and fought valiant rear-guard actions against the loss of scarce defence funding. As the Cold War progressed, the percentage of defence spending on the RCN and Army declined, forcing each service to seek distinctive roles of a sufficiently significant nature. These desires did not always align with political wishes. In 1959, Prime Minister Diefenbaker issued the Civil Defence Order, giving the Minister of National Defence, and, in turn, the Army certain responsibilities following a Soviet nuclear attack.<sup>78</sup> These included attack and fallout warnings, damage assessment following a nuclear attack, and other duties to maintain law and order and assist with recovery. These roles did not sit well with the Army, but they did give it, and the militia, a very specific part to play in national survival.<sup>79</sup> Indeed, the idea that the Army would be responsible for survival and recovery instead of combat was something shared by US President Dwight Eisenhower, much to the chagrin of the US Army. Central to

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Library (JFK), Theodore C. Sorensen papers, Classified Subject Files 1961-1964, Box 49, Memorandum for the President, Continental Air Defense, 12 November 1962, 10.

<sup>74</sup> DHH, Raymont Papers, 73/1223 Series 1 File 306, Memorandum to the Minister from the Chief of the Air Staff, *Canadian Bomarc Squadrons*, 22 February 1963.

<sup>75</sup> DHH, Raymont Papers, 73/1223 Series 1 File 54, Chairman, Chiefs of Staff Committee, Canada-US Ministerial Committee, Continental Air Defence, 28 June 1960, 5-6; DCC, MG01XIVD26 Volume 10, Defence Questions for Discussion, 4 November 1959, 1.

<sup>76</sup> DHH 79/469, Air Vice Marshal M. M. Hendrick Papers, Daily Diary, 30 May 1958.

<sup>77</sup> *Ibid.*

<sup>78</sup> DHH, 72/175, Statement by the Chief of the General Staff Canadian Army to the Special Committee on Defence, 11 July 1963, 29.

<sup>79</sup> John A. English, *Lament for an Army: The Decline of Canadian Military Professionalism* (Concord, ON: Irwin, 1998), p51-52.

Eisenhower's *New Look* national security policy, formalized by National Security Council 162/2 which he signed in October 1953, was the concept of massive retaliation using nuclear weapons. Thus, the conventional role of land forces shifted from engaging and destroying the enemy's army.<sup>80</sup> In the context of a nuclear attack by the Soviets, Eisenhower felt

it would be perfect rot to talk about shipping troops abroad when...our cities were in ruins. You would have disorder and almost complete chaos in the cities and on the roads around them. You would have to restore order and who is going to restore it? Do you think the police and fire departments of those cities could restore it? Nuts! That order is going to have to be restored by disciplined armed forces and by our Reserve. That's what our military is going to be doing in the first days of an all-out atomic attack.<sup>81</sup>

Eisenhower may have been right about the role of the military following a nuclear exchange, but this kind of role must have irked professional army officers for a number of reasons. Not only would it have been difficult to recruit with this kind of mission, which was not glamorous to say the least, it provided no means to demand a greater share of defence funding.

To attempt to develop a more traditional role for itself following the 1962 Cuban Missile Crisis, the Canadian Army emphasised the need to prepare to counter Soviet attempts "to create a feeling of insecurity by raiding parties or the threat of such on Canadian soil."<sup>82</sup> While the idea of a major invasion of the North by hordes of Soviets did not garner much support, this did little to affect planning for the so-called 'Defence of Canada Brigade'. This force would be a high-readiness three battalion 'fire brigade' that could be deployed by sea, land, or air and, in conjunction with support from the other services, be sufficiently powerful to dislodge enemy establishments.<sup>83</sup> In a very similar fashion that has not changed much over the decades the RCN also used its assessment of the Soviet maritime threat in order to press its own requirements. The elements of the Soviet threat that could be countered using RCN resources included the Soviet submarine force, the Soviet fishing fleet which had a covert purpose, and in competition with NORAD, Soviet long-range aviation.<sup>84</sup>

Thus, the development of an inter-service or 'joint' threat assessment eluded the senior military leadership of the CF and, as a result, Diefenbaker's government. The Chiefs of Staff Committee had a Chairman whose responsibilities included "all NATO military matters, matters affecting strategy, tactics and employment of forces, requests regarding employment, training and logistic

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<sup>80</sup> Dwight D. Eisenhower Presidential Library (DDE), Papers as President of the United States, 1953-61, Ann Whitman file, Memorandum "Discussion at the 225<sup>th</sup> Meeting of the National Security Council", 24 November 1954"; DDE White House Office, Office of the Special Assistant for National Security Affairs: Records, 1952-61, Box 9, NSC 5408 – Continental Defense (1), Draft Statement of Policy Proposed by the National Security Council on Continental Defense, General Considerations, 7; LC Papers of Curtis E LeMay, Box 194, Letter from MGen Gerhart, Special Assistant to the Joint Chiefs of Staff for National Security Affairs, to General LeMay, 14 January 1954.

<sup>81</sup> DDE, Papers of James C. Hagerty, Box 1, Hagerty Diary, 1 February 1955.

<sup>82</sup> DHH, 72/175, Statement by the Chief of the General Staff Canadian Army to the Special Committee on Defence, 11 July 1963, 29.

<sup>83</sup> *Ibid.*, 29-30.

<sup>84</sup> *Ibid.*, 2.

support of foreign forces, and all matters of a Joint Service nature other than financial.”<sup>85</sup> Yet, all recommendations and decisions of the Chiefs of Staff Committee had to be unanimous, and while some scholars have argued that its first Chairman, General Foulkes, had “almost the same level of influence as the minister”<sup>86</sup>, and while the Americans felt he was “Well disposed towards the United States”, he had no over-riding authority and merely coordinated inter-service and international matters.<sup>87</sup> Indeed, it was charged in the mid-1950s that the Chiefs of Staff Committee was “...“packed” to protect the Government against receipt of “unpalatable advice”.”<sup>88</sup> As a result, in most cases the best that could be hoped for was a cobbling together of the threat assessments of each service without the perspective of a joint force commander to bring it all together and provide that clear and unfiltered perspective to government.<sup>89</sup>

In today’s Canadian defence organisational structure the possibility exists to avoid these difficulties, if appropriate action is taken. Currently, the CF has two main operational-level commands ideally positioned to develop a clear statement of joint requirements for both current force generation, and for future force development.<sup>90</sup> Moreover, these commands are integrated, which means they have representatives of all three services to provide the essential service-specific advice and recommendations, but have a single voice responsible for operations in their respective areas of responsibility that can provide a unified CF contribution to a Whole of Government response to emerging crises.<sup>91</sup> This was not the case in the late 1950s and early 1960s where a flawed decision-making structure, perpetuated by senior leadership, helped to interfere with the formulation of a reasoned threat perception.<sup>92</sup> Instead, as will be shown, Prime Minister Diefenbaker’s odd world views were allowed to run unchallenged, colouring his approach to both defence issues and Canada-US relations. This structure has particular value in today’s threat environment, and thoughts of re-emphasizing efficiency at the expense of

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<sup>85</sup> *Ibid.*

<sup>86</sup> Sean Maloney, *Learning to Love the Bomb: Canada’s Nuclear Weapons during the Cold War* (Washington DC: Potomac Books, 2007), 16.

<sup>87</sup> DDE, Papers as President, Ann Whitman File, International Meetings Series, Box 3, File Canada Visit, July 1958 Briefing Papers, “Foulkes, General Charles”.

<sup>88</sup> The charges were made in the 23 June 1956 edition of Maclean’s magazine, copies of which were brought to the attention of the US Ambassador to Canada. See NARA RG 59 General Records of the Department of State, 1955-59, Decimal File 742.5 Box 3217, Foreign Service Despatch “Canadian Parliamentary Debate on 1956-1957 Defence Estimates”, 14 August 1956, 8.

<sup>89</sup> For an example, see DCC, MG01XIVD26 Volume 10, Summary Estimate of the Threat to North America (1960-1970) Based on Current Agreed Canadian-United States Intelligence Estimates, 29 October 1959.

<sup>90</sup> In response to government direction to reduce command and control overhead, the CF will combine Canada Command, CEFCOM, and CANOSCOM into a new Canadian Joint Operations Command. While the form may change, the recommendations on its role in setting joint requirements remain valid. See David Pugliese, “Navy Transformation and New Operational Command and Control Structure Announced for the Canadian Forces”, *Ottawa Citizen*, 11 May 2012, accessed 18 May 2012, <http://blogs.ottawacitizen.com/2012/05/11/navy-transformation-and-new-operational-command-and-control-structure-announced-for-the-canadian-forces/>.

<sup>91</sup> Arguably, however, this potential has not been realised due to a desire to maintain the status quo of service, or environmental, pre-eminence. See Brad Gladman, *The Requirements for a Canada Command Integrated Operating Concept* (Ottawa: DRDC-CORA TR 2006-39, 2007).

<sup>92</sup> For a full description of this structure, see Brad Gladman and Peter Archambault, *Confronting ‘the Essence of Decision’: Canada and the Cuban Missile Crisis*”, 19-26.

effectiveness, which seems to be the main thrust of LGen Andrew Leslie's recent report on CF transformation, risks reinforcing parochialism within the CF.<sup>93</sup>

### CCOS perspectives

The Canadian Chiefs of Staff Committee was first formed in June 1927. Initially called the Joint Staff Committee, its first meeting was on 31st October 1927. In November 1938, "the appointment of Senior Air Officer was changed to Chief of the Air Staff and also came directly under the Minister, and at that time the Joint Staff Committee changed its name to the Chiefs of Staff Committee."<sup>94</sup> This committee consisted of the three Service Chiefs up to the end of World War Two, when the Chairman of the Defence Research Board was granted membership with the status of a Chief of Staff.

The deteriorating relations between the Western Alliance and the Soviet Union, including the Berlin Air Lift of 1948 and the start of the Korean War in 1950, led to an increase in the size of the services and illustrated the need for changes to the Chiefs of Staff Committee. At the time, the Chairman of the Chiefs of Staff Committee also was the Chief of the Army General Staff, and the demands of both jobs at this busy time were too arduous. As a result, the Government agreed to "the reorganization of the Canadian Chiefs of Staff with the appointment of a Permanent Chairman, Chiefs of Staff, on the 1st February 1951."<sup>95</sup> As stated earlier, his responsibilities included all NATO military matters, as well as those affecting strategy, tactics and employment of the CF, any requests for the employment, training and logistic support of foreign forces, and all Joint service matters except financial.<sup>96</sup> A potential complication was the requirement for unanimity in all recommendations and decisions of the Chiefs of Staff Committee. While in theory the Chairman had no over-riding authority, and merely coordinated inter-service and international matters, in practice its first Chairman, General Charles Foulkes, had a level of influence that rivalled the MND.<sup>97</sup>

The Chairman quickly became the Government's professional military advisor, likely to the annoyance of the Service Chiefs. In theory, each member of the Committee could "advise the Minister of National Defence and the Cabinet Defence Committee on matters of defence policy and to prepare strategic appreciations and military plans" when those plans concerned their service, but most often it was the Chairman who did so. Moreover, since the Chairman, Chiefs of Staff initially sat on the Panel on the Economic Aspects of Defence Questions, the Cabinet Defence Committee, the Defence Research Board, and was a member of NATO's Military Committee, at times the Chairman had great influence over the formation of national security policy.<sup>98</sup> Indeed, seemingly in an effort to placate the service chiefs, the Government formed the Defence Council in 1953 to allow the service chiefs some access to the minister.<sup>99</sup>

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<sup>93</sup> LGen A. Leslie, "Report on Transformation," 6 July 2011, *passim*, accessed 17 October 2011 [http://sjs.mil.ca/dgplans/Resources/DG%20Plans%20Executive/Report\\_on\\_Transformation\\_2011\\_eng.pdf](http://sjs.mil.ca/dgplans/Resources/DG%20Plans%20Executive/Report_on_Transformation_2011_eng.pdf).

<sup>94</sup> LAC, MG 32, Papers of Douglas Harkness, "Canadian Organization for Defence for Presentation to the National Defence College, 12 September 1960," by R. L. Raymond, Part 2, 1.

<sup>95</sup> *Ibid.*, 2.

<sup>96</sup> *Ibid.*

<sup>97</sup> Maloney, *Learning to Love the Bomb*, 16.

<sup>98</sup> *Ibid.*, 17.

<sup>99</sup> *Ibid.*, 16.

Thus, the structure was in place to allow for the formulation of clear military advice to the MND and Cabinet Defence Committee, but often the information failed to reach the Prime Minister because of a lack of interest in military advice. As Diefenbaker himself later said, the “responsibility finally rests with the Prime Minister. No one else. He takes the best advice he can get. But decision on all vital matters must finally receive his approval.”<sup>100</sup> If so, it behooves the Prime Minister to arrange to hear directly from those with the needed information or perspectives bearing directly on the problem. Indeed, this was the entire purpose for having the Cabinet Defence Committee chaired by the PM, something Diefenbaker eschewed. As indicated earlier, between taking power in 1957 and the end of 1959, Diefenbaker attended just over 60% of the Cabinet Defence Committee meetings, and in the following years although he chaired 75% of the meetings, there were only eight. Pure numbers do not tell the whole story, as attendance does not mean interest or understanding, but the pattern is clear and supports what Foulkes later said about how difficult it was even for his chief military advisor to get advice to Diefenbaker directly.”<sup>101</sup>

### **Prime Minister Diefenbaker’s View of the Soviet threat**

It is not uncommon to note that Prime Minister Diefenbaker had some peculiar views on world issues and events, which likely were created or at least supported by that destructive combination of a clumsy decision-making structure and the presence of polarizing personalities. When information needed to make an informed decision is missing, either because it cannot reach those making the decisions or because it is not requested, it should be no surprise that the resulting decision is based more on belief and frequently on poorly conceived notions of what should be done (i.e., received or even conventional wisdom) than on a pragmatic and informed assessment of the situation. Added to this must be, as always in the Canadian context, a healthy dose of anti-Americanism, a cottage industry in some elements of Canadian society<sup>102</sup> and something Diefenbaker had in abundance. The effect of personal proclivities is always felt, but more so in the milieu of lumbering and confused decision-support and decision-making.

In that context, while the US State Department initially felt that Diefenbaker took “a more realistic view of the dangers in the world situation and of Communist intentions than several of his colleagues,” and that he did not have any basic prejudice against the US, this quickly changed after President Kennedy took office in 1961.<sup>103</sup> While President Dwight D. Eisenhower and Diefenbaker shared a warm personal relationship that softened somewhat his hard anti-American edge, something that doubtless influenced his approach to continental defence initiatives like the formation of NORAD, this contrasted sharply with his frosty and often hostile affiliation with the

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<sup>100</sup> Thomas A. Hockin, “Three Canadian Prime Ministers Discuss the Office,” Thomas A. Hockin, ed., *Apex Of Power. The Prime Minister and Political Leadership in Canada*, Second edition (Scarborough: Prentice-Hall of Canada, Ltd., 1977), 249; also see Russell Steven Paul Isinger, “The Avro Canada CF-105 Arrow Programme: Decisions and Determinants” (Saskatoon: University of Saskatchewan MA Thesis, 1997), accessed online on 18 March 2010 at: <http://scaa.usask.ca/gallery/arrow/thesis/index.htm>.

<sup>101</sup> UVSC, The Papers of MGen George Parkes, accession 74-1 Box 7, “Interview with General Charles Foulkes” 9 March 1967, 14.

<sup>102</sup> For an example of this kind of work see John W. Warnock, *Partner to Behemoth: The Military Policy of a Satellite Canada* (Toronto: New Press, 1970); for a scholarly view of this phenomenon, see J.L. Granatstein, *Yankee Go Home? Canadians and Anti-Americanism* (Toronto: Harper Collins, 1996).

<sup>103</sup> LAC, MG 31, E 83 Papers of H. Basil Robinson, Volume 4 File 4, Washington – John F. Kennedy – General, February 1961, Memorandum for the President: Prime Minister Diefenbaker’s Visit 20 February, 1961.

‘Imperial President’, John F. Kennedy. Some writers have suggested that one reason for the discord was Kennedy’s appeal to Canadians was “displacing [Diefenbaker] in their affections. Under the circumstances, it was hard for a man like Diefenbaker, whose rancour was often rooted in the petty, not to be jealous.”<sup>104</sup> Their relationship never improved and clouded discussions of the threats to the continent and what to do about them. A hand-written note gives a true indication of Diefenbaker’s understanding of sovereignty, the existential threat posed by the Soviet Union, and of Canada-US relations. As stated previously, Diefenbaker wrote that “Interdependence in [sic] Continental sense cannot exist without derogation to sovereignty” due largely to the disparity in strength between the two countries, an odd statement from the leader responsible for the NORAD agreement which placed Canadian fighters under the control of an American general.<sup>105</sup> On its surface there is an element of truth to the belief that at the time there was a growing cultural, economic, and military interdependence between Canada and the US. However, and something as true today as then, if this interdependence is entered into freely, for good reason, and through trade and military agreements that are a benefit to both nations, then these are expressions of sovereignty instead of a challenge to it. Moreover, much of that interdependence was beyond the realm of politics, and came into being as a consequence of mutual desire and perceived advantage.

Throughout his political career, Diefenbaker’s public statements often were very tough on communism, but his approach was inconsistent.<sup>106</sup> At times, his statements were sharply anti-communist. Indeed, although offered as a campaign promise, Diefenbaker once pledged “to introduce a resolution in the UNGA [United Nations General Assembly] condemning Soviet colonialism.”<sup>107</sup> Curiously, the Canadian Special Assistant to Canadian Foreign Minister Green, Ross Campbell, felt this notion “was deplorable and that Canada would ‘fall flat on its face’ at the UN if it attempted to sponsor such a resolution.”<sup>108</sup> The Americans shared this view, believing Canada would find “little support at the UN.”<sup>109</sup> In spite of the views of his closest ally and key government officials, and demonstrating a lack of appreciation of their advice, Diefenbaker continued his inconsistent and very forceful denunciation of Soviet colonialism.<sup>110</sup> At the same

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<sup>104</sup> Lawrence Martin, *The Presidents and the Prime Ministers. Washington and Ottawa Face to Face: The Myth of Bilateral Bliss, 1867-1982*, (Toronto: Doubleday Canada Limited, 1982), 183.

<sup>105</sup> DCC, MG01X1IF212 Volume 112, Foreign Affairs – Canadian-American Relations, undated handwritten notes by Diefenbaker.

<sup>106</sup> See Peter C. Newman, *Renegade in Power: The Diefenbaker Years* (Toronto: MacClelland and Stewart, 1963); Jamie Glazov, *Canadian Policy toward Khrushchev’s Soviet Union* (Montreal: McGill-Queen’s University Press, 2002); Patrick Nicholson, *Vision and Indecision* (Don Mills: Longmans Canada, 1968). There are, however, some authors who disagree with this argument. For example, Jason Zorbas, “A Red Tory in Foreign Affairs: Analyzing John G. Diefenbaker’s Foreign Policies from an Ideological Perspective”, paper for the 2010 Canadian Political Science Association Conference.

<sup>107</sup> NARA RG59, General Records of the Department of State, Records Related to the Cuban Missile Crisis 1962-1963, Memorandum of Conversation with Rufus Smith of the US Embassy, 23 May 1960.

<sup>108</sup> *Ibid.*

<sup>109</sup> *Ibid.*

<sup>110</sup> Jamie Glazov, *Canadian Policy Towards Khrushchev’s Soviet Union* (Kingston: McGill-Queen’s University Press, 2002), p128-130.

time, however, Diefenbaker's other actions and statements seem to show a conciliatory attitude towards the Soviet move into the hemisphere and the Caribbean.<sup>111</sup>

On the matter of trade with communist Cuba, for example, Diefenbaker continued normal relations with the Castro regime, seemingly oblivious to the sensitivity of this issue in Washington, which had "concluded that strong economic sanctions against Cuba...might avert armed intervention later." Both the Eisenhower and Kennedy administrations had maintained a suspension of imports from Cuba and on all exports to Cuba except "welfare food supplies," using the Monroe Doctrine as justification to prevent the Soviet move into the Western hemisphere.<sup>112</sup>

This doctrine was long-standing, dating back to the early 19<sup>th</sup> century when it was delivered in an address to Congress on 2 December 1823 by President James Monroe, cautioned Europe that the US government viewed the Western Hemisphere as its sphere of influence and that European expansionism into the Western Hemisphere would be regarded as "dangerous to [U.S.] peace and safety".<sup>113</sup> The US would respond as necessary to protect itself. In May 1904, President Theodore Roosevelt expanded the Monroe Doctrine to include the right of US intervention in the Western Hemisphere and the Caribbean.<sup>114</sup> Thus, any intervention by the Soviet Union into the Western Hemisphere or Caribbean would be seen by the Americans as a provocative move. In many ways, this intuitive response to external interference is – and was – well known and well established. In fact, it is as deeply ingrained in the American national psyche as Canadian reaction to real or perceived incursions into 'our Arctic', which makes the Canadian approach to Cuba following the communist revolution there all the more puzzling.

In his memoirs, Diefenbaker defended the continuation of trade with Cuba by saying

the Monroe Doctrine was not recognized by international law and was not binding on Canada. In fact, we regarded the Monroe Doctrine and its extension by the OAS Caracas resolution of 1954 as an unacceptable unilateral decision on spheres of influence and types of governments in the Western Hemisphere.<sup>115</sup>

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<sup>111</sup> DCC, MG01XIVE94 Volume 13, Defence – Policy – General, Canada's Defence Policy: Partial text of a statement by Prime Minister John G. Diefenbaker to the House of Commons on January 25, 1963, 1. In this speech, Diefenbaker called for trade and cultural exchanges to bring about a mutual understanding.

<sup>112</sup> LAC RG2, Privy Council Office, Series A-5-a Volume 6176, Joint Canada-US Committee on Trade and Economic Matters – Cuba, 16 March 1961.

<sup>113</sup> RG 59 General Records of the Department of State, Records Related to the Cuban Missile Crisis, 1962-1963, Box 3, Public Law 87-733, Joint Resolution Expressing the determination of the United States with respect to the situation in Cuba, 3 October 1962. See also RG 59 General Records of the Department of State, Records Related to the Cuban Missile Crisis, 1962-1963, Box 3, President's Statement on Cuba, Press Conference 13 September 1962; RG 59 General Records of the Department of State, Bureau of Inter-American Relations, Office of the Coordinator of Cuban Affairs, Box 30, United States Policy Toward Cuba, 25 September, 1962; JFK Library, Papers of Arthur M. Schlesinger, Box WH5, Cuba: Questions and Answers, Department of Defense Document, 29 October 1962, p.17; RG 59 General Records of the Department of State, Records Related to the Cuban Missile Crisis, 1962-1963, Box 4, Letter to the Secretary of State from Leonard Mesker, "Blockade of Cuba", 1962.

<sup>114</sup> JFK Library, Theodore C. Sorensen Papers, Classified Subject Files 1961-1964, Box 109, paper entitled "Background: The Confrontation and The U.S. Decision-makers", p. 6.

<sup>115</sup> John G. Diefenbaker, *One Canada: The Years of Achievement 1957-1962* (Toronto: Macmillan of Canada, 1976), 173-174.

While this interpretation might have resonated with international lawyers and a few historians, it fails to understand ‘the story’ of American history and how central the Monroe doctrine was, and is, to US ‘strategic culture’. Moreover, taking this stand sent a very strong message to Canada’s closest ally about its reliability, potentially harming Canada’s longer term interests, while at the same time seeming to appease the enemy Prime Minister Diefenbaker had denounced as ‘colonial’ in an address to the UN General Assembly.<sup>116</sup> If ever there was a time to act in support of Soviet colonial encroachment in the Western hemisphere in defiance of a long-standing US policy in an act that threatened Canada as much as the US, it was then. Yet Diefenbaker continued in what must be called a detached or surreal view of the world and Canada’s place in it, something likely fuelled by a confused decision-making structure where key expertise was not heard.

To get a sense of the level of detachment and how Diefenbaker viewed Canada’s role in the world, one need only look at a draft speech entitled *The Free World’s Approach to the Sixties*, in which Diefenbaker outlined a remarkably naïve plan for dealing with some of the world’s pressing problems. Ironically, these problems still remain after more than fifty years, and include how to assist “underdeveloped countries to obtain adequate and stable earnings from their exports”, the rising power of China, the population explosion, and more fundamentally, issues like how “to work out effective international agreements to reduce the dangers resulting from the development of methods of mass destruction.”<sup>117</sup> Diefenbaker never lost his belief that NATO was the main means of countering the communist bloc, but the plan outlined in this speech called for the free world to unite and deal with these problems through “one international agency as the chief organ for consultation and common action within the free world”.<sup>118</sup> Moreover, Diefenbaker continued, in his conception there

must be leadership from those who are qualified to lead, but there must be no self-appointed directorates in the free world, and those nations which are most directly concerned in problems and have most to contribute to their solution must participate as principals in working out solutions.<sup>119</sup>

In an odd contradiction, the US President and Government of the United States was called upon to exercise “the prime responsibility for leading the countries of the free world towards the solution of these problems.”<sup>120</sup> Ultimately, Diefenbaker hoped that “out of this kind of undogmatic, functional, pragmatic approach there may gradually emerge during the sixties the outline of some institutional or constitutional structure for the free world as a whole.”<sup>121</sup>

While sounding good on paper, this speech assumed that “the steady growth of constructive cooperation” on all aspects of these issues was, or indeed is, realistic.<sup>122</sup> It reflects a lack of

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<sup>116</sup> *Ibid.*

<sup>117</sup> LAC, MG 31 E83, Papers of H. Basil Robinson, Volume 4 File 4.1 January 1961, “The Free World’s Approach to the Sixties”, 23 December 1960, 9.

<sup>118</sup> *Ibid.*, 39.

<sup>119</sup> *Ibid.*, 40.

<sup>120</sup> *Ibid.*, 44.

<sup>121</sup> *Ibid.*, 40.

<sup>122</sup> *Ibid.*, 44.

understanding of the timeless character of Realism in international relations, and that nations that matter act according to their interests. In order to matter those interests must be defined clearly and pursued doggedly and often ruthlessly. While imagining the world in altruistic terms might serve philosophers well, it does little for nations in the real world. It leads to sloppy thinking and decision-making, culminating in strategic laziness that leaves the nation ill-prepared to meet the real challenges and threats they will face. It was in this context that a series of defence decisions were made (or not made) that had a lasting impact on the Canada-US strategic defence relationship. An understanding of how information flowed in support of those decisions is crucial to an understanding of that relationship and to Canadian decision-making in general. Indeed, it is central to the notion of Canadian strategic culture.

### 3 CF-105 Avro 'Arrow' Controversy

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Very quick on the heels of the NORAD agreement came the decision to cancel the CF-105 Avro Arrow. This decision, which killed the development of a Canadian-built aircraft with undeniable potential as an air superiority fighter, is less important to this study than an examination of the decision-making process and what that may indicate about the nature of Canadian strategic culture in the early Cold War. In the time since that decision, the story of the Arrow has become more myth and legend,<sup>123</sup> with some arguing that variants of the aircraft would still be front-line fighters flying today. The latter, of course, is highly unlikely, but what is notable is the persistence of the enduring belief that an opportunity was missed, and that a lack of political vision and courage sacrificed a chance for Canada to lead the US in a critical element of continental defence. More importantly, at the political level insufficient thought was given to the need to replace the obsolescent CF-100 all-weather fighter, which was the main contribution to continental air defence, as the Arrow program was cancelled. Ironically, this may have led to a situation that, for a government and Prime Minister seemingly obsessed with the derogation of sovereignty, would be forced to allow US interceptors on Canadian bases to defend against any Soviet bomber attack.<sup>124</sup> In the absence of much thinking about a capable replacement to the CF-100 and the cancellation of the Arrow, this was one option the Canadian government was forced to consider.

#### Money

At the time the Arrow program was launched, the RCAF was at the height of its 'Golden Age' brought about by a strong Canadian economy, which in 1952 showed unprecedented economic prosperity and substantial growth. In 1953 Finance Minister Douglas Abbott delivered another budget that projected a surplus and a further reduction in income taxes for Canadians.<sup>125</sup> The strength of the Canadian economy allowed Canada to join with its Western Allies in a massive rearmament program following the outbreak of the Korean War. In 1951, Defence Minister Brooke Claxton began a three-year five billion dollar defence program, and by 1952–53, defence expenditures had grown to over two billion dollars out of a total national budget of just over four billion.<sup>126</sup> If ever there was a time to invest in a 'made-in-Canada' contribution to continental air

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<sup>123</sup> For examples of this extensive literature see James Dow, *The Arrow*, 2nd ed. (Toronto: James Lorimer, 1997); Murray Peden, *Fall of an Arrow* (Toronto: Stoddart, 1987); Palmiro Campagna, *Storms of Controversy: the Secret Avro Arrow Files Revealed*, 3rd ed. (Toronto: Stoddart, 2000); E.K. Shaw, *There Never Was an Arrow*, 2nd ed. (Ottawa, ON: Steel Rail Educational Publishing, 1981); Randall Whitcomb, *Avro Aircraft and Cold War Aviation* (St. Catherines: Vanwell Publishing, 2002); Greig Stewart, *Shutting Down the National Dream: A.V. Roe and the Tragedy of the Avro Arrow*, 2nd ed. (Toronto: McGraw-Hill Ryerson, 1997); Peter Zuuring, *The Arrow Scrapbook* (Dalkeith: Arrow Alliance Press, 1999); Les Wilkinson, Don Watson, Ron Page and Richard Organ, *The Story of the Avro Arrow from its Evolution to its Extinction* (Erin: Boston Mills Press, 1980).

<sup>124</sup> DHist, 73/1223 Raymont Papers Series 1, Box 1, File 12, Paper prepared at the request of the Chiefs of Staff Committee entitled "Implications of USAF Taking Over RCAF Manned Interceptor Role" April 1959; DHist 73/1223 Raymont papers Series 6, File 3005, *Hansard*, 2 March 1959, 1503.

<sup>125</sup> J.W. Pickersgill, *My Years with Louis St. Laurent: A Political Memoir* (Toronto: University of Toronto Press, 1975), 191.

<sup>126</sup> LAC, MG 32 B5 Papers of the Honourable Brooke Claxton, Volume 223, *Canada's Defence Programme 1953–54*.

defence, it seemed to be then. This was especially true given that the main Soviet threat to North America at the time was from the air, and that there was a perception of the decline in importance of the RCN and Canadian army; by 1955 the RCAF strength of 51,000 exceeded that of the army and it received more defence spending than both the army and RCN.<sup>127</sup>

Against this, however, was the legitimate concern over the economic impact of the rapid military build-up. In late 1951, Claxton expressed concern about the growing costs and short lifespan of modern weapons, likening it to Alice in Wonderland where “it takes all the running you can do to keep in the same place”.<sup>128</sup> Not only were the weapon systems costly, but the cost of clothing, barracks, training, and personnel maintenance “totalled close to two-thirds of the defence dollar.”<sup>129</sup> In other words, the building blocks of a military capability left little room for capital purchase, and thus those decisions had to be made very carefully to ensure the provision of effective equipment that would last. The combination of such costs and the wide range of demands for defence resources meant that not only did defence garner the majority of federal spending, but that its Minister was directing the bulk of the nation’s spending.<sup>130</sup> Thus, although when the project began there may have been some reason for optimism, it soon became obvious that the nation would not be able to continue the large defence budgets. In order for the CF-105 project to succeed, foreign sales would have to be secured and this seemed unlikely. In that context, the planning for another aircraft to replace the CF-100 should have started with a clear threat assessment to a specific RCAF requirement, through to the discussion of alternatives to fill those requirements. Instead, the government seemed content to continue its wandering path through, and *ad hoc* approach to, important defence decisions.

In continental defence, Canada had benefitted since 1951 from “an apparent willingness within the US administration to achieve greater continental integration in defence production and trade by supplying increased quantities of components or finished products, especially from the aviation and electronics sectors.”<sup>131</sup> This trend showed signs of diminishing with the expected end of the Korean War, and with President Eisenhower’s stated desire to reduce defence spending.<sup>132</sup> This was particularly true for continental defence which, according to the Chairman of the Joint Chiefs of Staff, Admiral Radford, was “taking a large amount of money and [was] expected to take more.”<sup>133</sup> Reflecting the general attitude of senior US military leadership, Radford felt “that a sizeable reduction should be made in the amount of money being given to this.”<sup>134</sup> However, these sentiments were not entirely universal. For example, in September 1953 Secretary of State John Foster Dulles wrote that “Our collective security policies require urgent

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<sup>127</sup> Ray Stouffer, “Air Chief Marshal Frank Miller – A Civilian and Military Leader”, *Canadian Military Journal*, Vol. 10 No2 (2010), 47.

<sup>128</sup> James Eayrs, *In Defence of Canada: Growing Up Allied, Vol. 4* (Toronto: University of Toronto Press, 1980), 208–9.

<sup>129</sup> *Ibid.*, 209.

<sup>130</sup> David Jay Bercuson, *True Patriot: The Life of Brooke Claxton, 1898–1960* (Toronto: University of Toronto Press, 1993), 215; the same argument is made in Donald C. Story and Russell Isinger, “The Origins of the Cancellation of Canada’s Avro CF-105 Fighter Program: A Failure of Strategy”, 1029.

<sup>131</sup> Donald C. Story and Russell Isinger, “The Origins of the Cancellation of Canada’s Avro CF-105 Fighter Program: A Failure of Strategy”, 1030.

<sup>132</sup> *Ibid.*

<sup>133</sup> LC, Papers of Dwight D. Eisenhower, Eisenhower Diaries, reel 22, Memorandum of Conversation with the President, 15 July 1959, 1.

<sup>134</sup> *Ibid.*

reconsideration” and that from a US standpoint there was a need for increased continental defence.<sup>135</sup> This did not necessarily mean, however, an increase in US military spending in Canada that would help offset the costs of the development of the Avro Arrow, nor did it mean the USAF would be likely to support the acquisition of the CF-105. By the fall of 1953, Claxton “reported glumly to his Prime Minister that major cuts to the US military aircraft budget would likely mean the cancellation of US aircraft-building programs at Canadair Limited in Montreal.”<sup>136</sup> In order for the program to succeed, other orders were needed.

One of the most often cited sources on Canadian defence during this period is Jon McLin. His work *Canada’s Changing Defence Policy* has attempted to come to terms with many of the issues surrounding the development and cancellation of the Arrow, as well as the purchase of the BOMARC missile and CF-101 Voodoo fighter.<sup>137</sup> Since this work came out, some forty-five years ago, more information has been declassified allowing a new look at these issues that have become part of the accepted national narrative. Of particular relevance to this study are McLin’s arguments about the inability of Canadian political leaders to secure foreign orders for the aircraft.<sup>138</sup> There were a number of meetings between MND George Pearkes and his American counterparts. For example, one such meeting took place in Paris at a NATO ministerial meeting. Pearkes discussed a potential US order for the Arrow with Secretary of Defense Neil McElroy, only to be told again that the US would not order the aircraft for its own use. As McLin wrote, “there would be no U.S. order even if substantial cost reductions were made in the Arrow.”<sup>139</sup> It will be shown here, both challenging and enhancing McLin’s argument, that while the Americans were consistent in their rejection of the Arrow for their own use, it did not reflect their lack of interest in the Arrow and desire to see it used by both British and the RCAF. Moreover, it was not, as some writers assert, that the US was attempting to bully Canada to procure US equipment only.<sup>140</sup> Rather, as fairly recently declassified material shows clearly, senior US military leadership was interested and sincere in absorbing the costs of procuring the aircraft in greater numbers than planned for both the RCAF and Royal Air Force (RAF) air defence squadrons. This study also will show that Canadian political leadership likely did not know of this potential. The flow, or lack thereof, of information to those responsible for important decisions is the focus of this case-study, and it is these details that are far more useful to current defence debates than whether the Arrow was cancelled or not. It is not the author’s intent to justify the means by which RCAF requirements were set and changed, or to suggest that a reasonable procurement strategy for Canada would be to build something of high quality and high cost and then hope the Americans would buy it for us. Thus, the debates surrounding the production costs and related matters to the aircraft’s development are intentionally avoided.

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<sup>135</sup> DDE, Papers as President 1953-61, Ann Whitman File, International Series Box 36, Draft Memorandum, 6 September 1953, 1.

<sup>136</sup> Donald C. Story and Russell Isinger, “The Origins of the Cancellation of Canada’s Avro CF-105 Fighter Program: A Failure of Strategy”, 1031.

<sup>137</sup> Jon B. McLin, *Canada’s Changing Defense Policy, 1957-1963*, especially 61-105.

<sup>138</sup> *Ibid.*, 70-73.

<sup>139</sup> *Ibid.*, 77.

<sup>140</sup> See Palmiro Campagna, *Storms of Controversy: the Secret Avro Arrow Files Revealed*, 3rd ed. (Toronto: Stoddart, 2000).

## Significant Foreign Interest

Popular depictions of the cancellation of the Arrow always include an element of unsubstantiated conspiracy amongst senior US and Canadian leadership – the most popular is that which alleges a US desire to see the cancellation of the project – and these assumptions must be challenged since recently declassified documents tell a different story.<sup>141</sup> They show that not only did USAF leadership see a role for the aircraft, although not in USAF service, but that the RAF also was interested in procuring it for their own use. Even scholarly works on the strategic thinking behind the decision to cancel the Arrow overlook, or outright ignore, the importance and level of foreign interest in the design, and all pay no mind to the significant roadblocks to the flow of this information to Canadian senior leadership.<sup>142</sup>

At the time the Arrow was under initial development, both the RAF and USAF were awaiting their own supersonic interceptors. The USAF had the North American F-108 Rapier on the drawing boards, the specifications of which were beyond those of the CF-105 making it less likely that the USAF would procure the Arrow for their own squadrons, something Pearkes learned when he discussed the matter with McElroy.<sup>143</sup> But this did not mean they were unappreciative of the Canadian design. Indeed, in a meeting between the Canadian ambassador and the Secretary of the USAF, James H. Douglas and others in 1958, the secretary remarked that his view was that despite the USAF “inability to absorb CF-105’s into their interceptor system” the Department of the Air Force was willing “to purchase CF-105’s in squadron strength, to be integrated into the continental defence system, to operate from Canadian bases, and to be manned and maintained by R.C.A.F personnel”.<sup>144</sup> This was no idle musing, but obviously the result of serious consideration of both the aircraft’s potential, the threat environment, and a means to enable the RCAF to meet more effectively the manned-bomber threat from the Soviet Union. So much so that when met with comments from the Canadian Ambassador that “this would pose certain problems against the background of Canada having remained aloof from Lend Lease and from the acceptance of aid from the U.S. or any other country” the Secretary “reiterated his personal view that he would like to see CF-105’s employed in squadron strength in Canada in greater numbers than was currently being planned for.”<sup>145</sup> Another USAF participant, General Putt, then suggested that the desired end of having the Arrow in Canadian service could “be achieved through NORAD indicating the desired disposition of U.S. and Canadian interceptor strength on the continent and, on this basis, showing an essential requirement for a number of squadrons based in Canada considerably greater than those presently planned for commitment to continental defence by the R.C.A.F.” Presented as such, General Putt continued, the purchase of Arrows might be cast in terms of continental defence, and thereby be more acceptable to Canadians. Another possibility, demonstrating the degree to which this topic must have been debated within USAF circles before the meeting, was offered by General Putt who suggested that

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<sup>141</sup> This incorrect story continues to this day: see Michael Byers “Ghost of the Avro Arrow Haunts the F-35”, *The Star*, <http://www.thestar.com/opinion/editorialopinion/article/1156769--ghost-of-the-avro-arrow-haunts-the-f-35>, accessed 12 April 2012.

<sup>142</sup> *Ibid.*, 1047.

<sup>143</sup> LAC RG 25 volume 4584 File 50046-40 File part 7, Memo to File Annex I to Appendix ‘G’ “Continental Air Defence – Foreign Policy Implications”, 1; also see Bill Gunston, *Fighters of the Fifties* (Cambridge: Patrick Stephens, 1981), 178–9.

<sup>144</sup> LAC RG 25 volume 4584 File 50046-40 File part 7, Memo to File Annex I to Appendix ‘G’ “Continental Air Defence – Foreign Policy Implications”, 1.

<sup>145</sup> *Ibid.*, 1-2.

some eight SAC refuelling bases were planned for Canadian soil, and “that possibly some “saw-off” or “swap” arrangement might be worked out, i.e. purchase of CF-105’s in exchange for work which might be done by Canada in readying the refuelling bases to give SAC a longer reach.”<sup>146</sup> Indeed, the “establishment of tanker base facilities at four bases in Canada” and the expansion of other airfields to accommodate SAC bombers had already been recommended to Cabinet in January 1957, so the end result would have been little or nothing.<sup>147</sup>

Contrary to the common belief that US officials are ignorant and unconcerned with the Canadian situation or Canadian desires or inclinations,<sup>148</sup> this incident shows a serious attempt by a very senior US figure who, according to those present at the meeting, “had been thoroughly briefed on the Canadian-built weapons system and had also discussed it more than casually with his top military people” and who “showed a familiarity with a variety of subjects associated with continental defence which indicated a knowledge of U.S.A.F.’s interests in Canada.” More importantly, he showed a clear “understanding of associated Canadian problems, both political and economic.”<sup>149</sup> All of this points to an ally with a detailed understanding of the potential value of the Arrow in the Canadian context, and offering a number of measures that would allow the US to purchase the aircraft for Canadian use, along similar lines that eventually would be used to procure the CF-101 Voodoo for Canadian squadrons, without a political blow-back that would be problematic for Canada-US relations and continental defence.<sup>150</sup> This reinforces the view that this was no idly musing or a statement of personal view, but a serious offer by the Department of the Air Force to absorb the costs of acquiring a significant number of CF-105s for the RCAF.

Contrary to what McLin says about the British desire to have “Canada settle on the TSR-2 which they were developing”, the RAF showed equal interest in acquiring the Arrow, something which developed due to delays in the arrival of its next fighter, the Gloster Javelin.<sup>151</sup> In 1955 the British “Minister of Supply, Reginald Maudling, toured the Avro plant in Toronto. He was impressed by the aircraft, especially when Avro officials assured him it would be operational before the Javelin.”<sup>152</sup> The British Air Staff also preferred the Arrow to the Javelin, and the Air Ministry also wanted “to acquire the Arrow as a replacement.”<sup>153</sup> As frequently happens, Treasury concerns trumped military desires, and there were both pecuniary and strategic reasons for the Chancellor of the Exchequer to rule out purchase of the aircraft. Buying the Arrow directly from Avro or building it under license in the UK both were found to be too expensive, and although both the RAF and Air Ministry wanted the Arrow, they wanted the Americans to buy it for them as part of the Mutual Defense Assistance Program. Initially, the US showed signs they were more

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<sup>146</sup> *Ibid.*, 2.

<sup>147</sup> LAC RG 25 volume 4584 File 50046-40 File part 1, Memo for the Cabinet Defence Committee, “U.S. Air Force Request for Tanker Base Facilities in Canada, 28 January 1957, 3.

<sup>148</sup> See Michael Byers “Ghost of the Avro Arrow Haunts the F-35”, *The Star*, <http://www.thestar.com/opinion/editorialopinion/article/1156769--ghost-of-the-avro-arrow-haunts-the-f-35>, accessed 12 April 2012.

<sup>149</sup> LAC RG 25 volume 4584 File 50046-40 File part 7, Memo to File Annex I to Appendix ‘G’ “Continental Air Defence – Foreign Policy Implications, 2.

<sup>150</sup> LAC MG32 B19 Papers of Douglas Harkness, volume 57, “Air Defence Review”, 23 December 1960, 8.

<sup>151</sup> McLin, *Canada’s Changing Defense Policy*, 70.

<sup>152</sup> Peter Archambault, *The Informal Alliance: Anglo-Canadian Defence Relations, 1945-1960*, unpublished PhD Thesis (Calgary: Department of History, 1997), 297.

<sup>153</sup> *Ibid.*

than willing to do so. USAF General Putt, who was a fan of the Arrow and pleased that Canada was producing something of value to continental defence, viewed the British plan to acquire the Javelin as “an example of our (Britain’s) attachment to antiques.” He felt the Arrow would meet both British and Canadian requirements far better than any of the alternatives. Furthermore, in 1955 in a similar approach to the British that his successor would take towards Canada in 1958 in discussions about the Arrow, the Secretary of the USAF told the UK Minister of Supply, Reginald Maudling, “that the US would co-operate with the UK to secure the Arrow for the RAF.”<sup>154</sup> The RAF eventually equipped 14 squadrons with Javelins, and the RCAF had originally intended some 400 CF-105s for air defence purposes, indicating the numbers being discussed could have been somewhere in the neighbourhood of 600 aircraft. Even if the numbers proposed for the RCAF, given the reference to “greater numbers than was currently being planned for”, were broadly similar to what the RAF had planned it would still total over 330 aircraft.<sup>155</sup>

Following the cancellation of the CF-105 Avro Arrow, the US State Department was aware of the “psychological shock to many Canadians” that demonstrated “Canada’s inability to play an independent role in the field of modern weaponry.”<sup>156</sup> While there is an element of truth to this, at times such dependency results from choices made, and perhaps a lack of strategic courage. In the case of the Arrow, Canadian industry had produced an aircraft of considerable potential, and one that provided the most effective means to counter what intelligence assessments indicated would be an enduring threat, the Soviet manned bomber. Canada’s partner in continental defence was prepared to purchase the aircraft in considerable numbers for both Canada and possibly Britain to ensure the Western Alliance was ready to meet this challenge. Accepting such assistance is not a challenge to sovereignty, as a very similar deal was made to give 66 CF-101 Voodoo aircraft to the RCAF for continental defence. Neither was entering into a bi-national air defence command, NORAD.<sup>157</sup> Rather, these acts are, or would have been in the former case, expressions of sovereignty in the context of an understanding of the realities of the threats faced and the means available to address them. In this instance, the decision-support system failed the Prime Minister. While there is no guarantee Diefenbaker would have accepted US assistance in acquiring a Canadian-made response to the Soviet bomber threat, there is no evidence in the available record showing he ever received the ‘Memo to File’ on discussions between the Canadian Ambassador and the Secretary of the USAF.<sup>158</sup> Moreover, while there was intelligence indicating the enduring nature of the Soviet manned bomber threat, there is no sign Diefenbaker was aware of this. His main source of information on the speed with which the Soviets would switch from bombers to

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<sup>154</sup> *Ibid.*, 297-298. See also UK National Archives, Kew, Surry AIR 19/671, Minister of Supply to Minister of Defence, 8 December 1955.

<sup>155</sup> LAC RG 25 volume 4584 File 50046-40 File part 7, Memo to File Annex I to Appendix ‘G’ “Continental Air Defence – Foreign Policy Implications, 1-2.

<sup>156</sup> NARA RG 59, Records of the Department of State, Entry 5298 Records Relating to Military Matters 1942-1966, Box 9. Memorandum entitled “Defense” undated, 2.

<sup>157</sup> LAC MG32 B19 Papers of Douglas Harkness, volume 57, “Air Defence Review”, 23 December 1960, 8.

<sup>158</sup> Palmiro Campagna, *Storms of Controversy: the Secret Avro Arrow Files Revealed*, refers to a priority message back to Canada from the air staff in Washington, but this document is not in the file to which Campagna refers. There is a summary of the US and UK interest in a different file part, but its distribution is limited and reinforces this paper’s argument that this information did not reach either the MND, PM, or Sidney Smith. See, LAC R112 volumes 33410-33411, File S-1038CN-180A, File parts 14 and 20.

ICBMs came from the Secretary to the Cabinet and Clerk of the Privy Council, R.B. Bryce.<sup>159</sup> Indeed, Russian bombers continue to probe routinely the air defence identification zones of Canada and the US to this day. Meeting that threat has been part of the calculus for the purchase of the CF-18 Hornet and possibly the F-35.

Moreover, when considering the cancellation of a project of this magnitude, and for which intelligence could and should have indicated a clear need to defend against an enduring Soviet bomber threat, it behooves a government at the helm of the nation's defence to put serious effort into consideration of an alternative fighter. Failing to do so meant that for a government so obsessed with avoidance of US intervention in Canadian affairs, and adamant that Canada would consider withdrawing from NORAD and go on its own<sup>160</sup> forced it to consider putting United States fighter squadrons on Canadian airfields to counter a Soviet bomber attack.<sup>161</sup> While the CF-101B Voodoo eventually was offered by the US in a deal that saw them absorb two-thirds of the cost while Canada picked up the remainder, the delay in its acquisition put Canadian and North American security at risk, and threatened Canadian sovereignty far more than entry into NORAD. The causes of this confusion are of relevance to current security and defence decision-making, as many of the root causes that led to the fumbled Arrow decision still seem to influence defence decision-making today.

### **Decision-Support, Diefenbaker Style**

Ultimately, the real question remains whether the decision-makers received the appropriate information, and whether the right voices from within the defence establishment were given the volume commensurate with their responsibilities.<sup>162</sup> In such cases, the perspective of the commander with the responsibility and accountability for, in the case of NORAD, conducting air defence of North America operations ideally should drive the debate. The fact that NORAD was a bi-national command whose commander was a USAF general complicated matters, and prevented the development and delivery of requirements to both governments. Still, the view of those involved in continental air defence is far more valuable in determining the way forward than, for example, the Secretary of the Cabinet with no formal training in defence matters. In the case of the decision to abandon the Avro Arrow, and given Diefenbaker's dislike of the Cabinet Defence Committee coupled with his seeming mistrust of senior military leadership, the advice on which he relied came from the Cabinet Secretary, R. B. Bryce. Indeed, Foulkes realised that the only

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<sup>159</sup> UVSC, The Papers of MGen George Pearkes, accession 74-1 Box 7, "Interview with General Charles Foulkes", 9 March 1967, 14.

<sup>160</sup> DCC, MG01XIVD4 volume 7, File Avro Arrow, rough notes written in Diefenbaker's hand, undated.

<sup>161</sup> LAC, RG 2 A-5-a volume 2744, Cabinet Conclusions, 4 February 1959, 4; DHH, 73/1223 Raymont Papers Series 2 Chairman Chiefs of Staff Committee and Chief of Defence Staff, File 827, Canada-United States Defence Relations, c. 1963, 4.

<sup>162</sup> The previous Liberal Government seems to have had a more reasonable decision-making structure, where the Prime Minister attended most Cabinet Defence Committee meetings and received more relevant information than Diefenbaker. For example, in the 17 November 1955 Cabinet Defence Committee meeting, PM St. Laurent was informed that the "The Ministers deferred consideration of the proposal to proceed with the CF105 development programme pending enquiries to be made by the Minister of National Defence of the United States Secretary for Air as to the possibility of the United States sharing in or taking over the whole of the programme." Obviously, this information did not pass from the Liberal to Conservative governments. See LAC RG 2 volume 2749 File volume VIII, Cabinet Defence Committee, 17 November 1955, 6.

way to get advice to Diefenbaker “was to put it across to Bryce, who was the Secretary of the Cabinet, and Bryce would try and get in [sic] sometimes”, showing the role personality often plays in such circumstances.<sup>163</sup>

### **Clerk of the Privy Council and Secretary to Cabinet R.B. Bryce**

Robert ‘Bob’ Bryce was both the Clerk of the Privy Council and Secretary to Cabinet from January 1, 1954, to June 30, 1963. Initially a student of engineering at the University of Toronto in 1932, Bryce later studied economics at Cambridge and Harvard universities where he became a strong supporter of John Maynard Keynes,<sup>164</sup> to the point where, according to John Kenneth Galbraith, some “called Keynes Allah and Bryce his Prophet.”<sup>165</sup> Thus, Bryce had a strong set of beliefs about government spending and its role in Western economies, and also had an understandable focus on efficiency – something he carried through his long career in government. His public service began with the Department of Finance in 1938, and because of his considerable abilities and service during the Second World War, by 1947 he was the Assistant Deputy Minister of Finance and Secretary of the Treasury Board. Bryce served as Clerk of the Privy Council and Cabinet Secretary, one of the most influential positions in the Canadian Government, to Prime Ministers St. Laurent and Diefenbaker.

The American State Department felt Bryce may have been “one of those who [had] pushed the notion of Canada being a leader of the ‘Middle Powers.’” Moreover, they knew of his interest in and considerable influence on Canadian defence policy, and thought Bryce felt Canada would do well to push for a period of “nuclear stalemate when means of detection and delivery reduce the importance of Canadian facilities to the United States.” This would allow for “greater Canadian independence from the United States and a possible role for Canada in preventing smaller countries from becoming nuclear powers.”<sup>166</sup>

With this assessment in mind it is interesting to look at Bryce’s role as the conduit for defence information to the Prime Minister, especially as it concerned continental air defence. On 5 September 1958, R.B. Bryce “sent a very long memo to the Prime Minister on what should be done with the Arrow.”<sup>167</sup> He felt that “in light of the changes in military advice, and the inevitable difficulties in forming judgements on such important yet uncertain information,” Bryce tried to reach a reasoned conclusion, but perhaps was not equipped to do so.<sup>168</sup> His recommendations, which show little sign of any influence from the Commander responsible for continental air defence, included the “cancellation of [the] entire CF-105 contract”, measures to acquire the Bomarc missile batteries, and “ordering 40 or 50 F-106C aircraft from the United States...at the

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<sup>163</sup> UVSC, The Papers of MGen George Pearkes, accession 74-1 Box 7, “Interview with General Charles Foulkes” 9 March 1967, 14.

<sup>164</sup> DDE, Eisenhower, Dwight D: Papers as President 1953-61, Ann Whitman File, International Series Box 6, Canada (2), Biography of Robert B. Bryce, Secretary to the Cabinet, undated.

<sup>165</sup> David Colander, “Political Influence on the Textbook Keynesian Revolution God, Man, and Laurie Tarshis at Yale”, in O. F. Hamouda and B. B. Price, eds., *Keynesianism and the Keynesian Revolution in America: A Memorial Volume in Honour of Lorie Tarshis* (Cheltenham: Edward Elgar, 1998), 59.

<sup>166</sup> *Ibid.*

<sup>167</sup> DCC, MG01XIVD6 Volume 7, Defence – Memoranda, Memorandum 2: The Arrow: 1956 to September, 1958, undated, 2.

<sup>168</sup> *Ibid.*

lowest prices possible and with the best possible cancellation rights.”<sup>169</sup> Many of these recommendations became government policy. The numbers bore no relation to RCAF or NORAD requirements, but rather seemed conjured out of thin air. This was not lost on senior military officials. In a report from the Chairman, Chiefs of Staff Committee it was noted that “Mr. Bryce’s organization...is becoming involved more and more in the co-ordination of governmental activities within Canada involving more than one department, to such an extent that his position soon may rival that of a senior minister in the Cabinet.”<sup>170</sup> Moreover, it is notable that the Cabinet Secretary served essentially as a national security advisor to the Prime Minister, by default rather than any official designation.

### **COSC Debates on the CF-105**

For a further example of how blockages to critical information flow can affect both advice to senior leadership and the resulting decisions taken is needed, one need look no further than the failure of what must be considered a serious offer by the Secretary of the USAF to purchase the Avro Arrow in squadron strength for the RCAF in exchange for assistance with SAC refuelling bases to reach either the Chiefs of Staff Committee or the Prime Minister. Moreover, neither took note of the intelligence estimates that suggested the Soviet manned bomber would remain a pillar of the threat even as ballistic missiles became more numerous, either because they failed to receive or simply chose to ignore them.<sup>171</sup> The final recommendations from the Chiefs of Staff on the Arrow, which had to be unanimous, included a narrative telling of advances in missile technology which “...created grave doubts as to whether a limited number of aircraft of such extremely high cost would provide defence returns commensurate with the expenditures.”<sup>172</sup> The USAF wanted “...to see CF-105’s employed in squadron strength in Canada in greater numbers than was currently being planned for”, and were prepared to absorb the costs because they viewed it of value to the defence of the continent.<sup>173</sup> Moreover, the Secretary of the USAF seemed to feel that CINCNORAD’s requirements should serve as the target for procurement of air defence assets, noting that his “...desired disposition of U.S. and Canadian interceptor strength on the continent [was] considerably greater than those presently planned for commitment to continental defence by the R.C.A.F.”<sup>174</sup> Thus, while there were intelligence estimates indicating the enduring nature of the Soviet manned bomber threat, a USAF senior leadership endorsement of the CF-105 program, and an air force about to be rendered incapable of contributing to air defence efforts

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<sup>169</sup> *Ibid*; see also, DCC, MG01XIVD26 volume 10, Memorandum for the Prime Minister from R.B. Bryce Re: The 105 Problem, 5 September 1958.

<sup>170</sup> DHH, Raymont Papers 73/1223, Series IV File 2126, CCOS Report on Working Group on War Measures, 21 January 1957, 1.

<sup>171</sup> DHH, Raymont Papers, 73/1223 Series 1 File 306, Memorandum to the Minister from the Chief of the Air Staff, *Canadian Bomarc Squadrons*, 22 February 1963. This differs from the view presented in Andrew Richter, *Avoiding Armageddon*, 53 which holds that the Canadian intelligence view was that Soviet bomber production had essentially stopped. While this may have been true, those same agreed intelligence reports show that for at least the next ten years the Soviets could put hundreds of bombers over North America. See NARA, RG 218, Joint Chiefs of Staff files, box 37, file 334 part 4, 1958; JFK, Theodore C. Sorensen papers, Classified Subject Files 1961-1964, Box 49, Memorandum for the President, Continental Air Defense, 12 November 1962, 10.

<sup>172</sup> LAC, RG 2 A-5-a volume 2744, Cabinet Conclusions, 10 February 1959, 2.

<sup>173</sup> LAC RG 25 volume 4584 File 50046-40 File part 7, Memo to File Annex I to Appendix ‘G’ “Continental Air Defence – Foreign Policy Implications, 1-2.

<sup>174</sup> *Ibid.*, 2.

against modern, fast Soviet bombers because its aircraft were obsolete, the Chiefs of Staff advised the government to cancel the CF-105 in favour of a less effective combination of some undetermined interceptor and the Bomarc missile. The latter, of course, opened the door to endless debate over the acquisition of the nuclear warheads without which Bomarc were entirely useless.<sup>175</sup> Further to this, little thought seems to have been devoted to considering an alternative to the Arrow, and no alternatives were available until the USAF more or less gave the RCAF 66 CF-101 Voodoo interceptors. In the meantime, the option to place USAF interceptor squadrons on Canadian bases had to be considered a distinct possibility. Parochial views and uninformed advice to Government came close to placing Canada in the 'defence against help' scenario with all the potential threats to Canadian sovereignty so feared by Diefenbaker.

The service-specific provincial views arguing for the cancellation of the Arrow began very early on. They were led by LGen Simonds, the Chief of the General Staff from 1951-1955, who from the beginning felt the Arrow was "wrong in principle" and that the spending should be devoted towards a less expensive interceptor and missiles with which to defend North America.<sup>176</sup> Doing so would free up always scarce resources for use on Army projects, but would do little to prepare Canada to meet a main and enduring threat to North America. Moreover, this advice was offered without awareness of the interest shown by both the British and Americans, the latter of which was willing to absorb the costs over which Simonds was concerned. Moreover, both the Chief of the Air Staff, Air Marshal Slemon, and the head of the Defence Research Board, Dr. Omar Solandt, argued that no aircraft even close to the Arrow's performance would be available before it, and more importantly none would meet RCAF requirements. Simonds' objections were continued by his successor LGen Howard Graham, who thought it "appeared that the suggested program, with all its implications, would consume all the funds that might be available for defence in future years and would have a drastic effect on the other two services."<sup>177</sup> While true, the COSC, according to McLin, "never deviated from the view that some interceptor would be needed even if the Arrow were not produced."<sup>178</sup> Moreover, the true cost of the aircraft and the foreign interest shown were not accounted for, nor was the potential of having the USAF absorb the bulk of the costs to provide the most capable and suitable interceptor for the Canadian environment. Indeed, the lines were drawn clearly between the RCAF on one side, and the RCN and Army on the other. This sort of inter-service rivalry typified Chiefs of Staff Committee meetings, the end result being a compromise between the conflicting imperatives of the services, as all submissions from the Chiefs of Staff Committee had to be unanimous. What was missing was the voice of the Commander in whom continental air defence had been vested, or his Canadian Deputy Commander.

### **CINC NORAD's Advice**

Just prior to the Cuban Missile Crisis in October 1962, the Commander of NORAD still held the view that "North American aerospace defense [was] a key factor in the deterrent equation and [was] a significant element of our persuasive deterrent strength."<sup>179</sup> In broadly similar terms,

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<sup>175</sup> See Sean M. Maloney, *Learning to Love the Bomb: Canada's Nuclear Weapons during the Cold War* (Washington DC: Potomac Books, 2007).

<sup>176</sup> LAC RG Chiefs of Staff Committee meeting, 11 February 1955, 2-3.

<sup>177</sup> LAC RG Chiefs of Staff Committee Meeting, 1 November 1955, 9.

<sup>178</sup> McLin, *Canada's Changing Defense Policy*, 83.

<sup>179</sup> DCC, MG01VI108 Defence Volume 45, Memorandum presumably written by Comd NORAD entitled "Some Facts About NORAD," 28 September 1962, 1.

while speaking to the Canadian Industrial Preparedness Association, Deputy CINC NORAD Air Marshal Slemon said that it was

a safe forecast, therefore, that an aggressor's offensive air strategy is unlikely to rely on ballistic missiles alone for a considerable number of years. This situation forces us to maintain and improve our air defence system to cope with the manned bomber threat, and to employ manned interceptors in our system for as long as the manned bomber is part of the threat. We cannot ignore the manned bomber because if we fail to maintain our ability to ward it off, a bomber attack, by itself could be decisive against us.<sup>180</sup>

Thus, both the Commander and his Canadian Deputy, in the context of intelligence assessments on the Soviet capabilities and efforts to test NORAD's air defences, were clear that this aspect of the Soviet threat to the continent would persist for the foreseeable future, and that credible defences were essential to protecting both the homelands and the strategic deterrent. These requirements do not seem to have reached Diefenbaker in any forceful way, due largely to the confused decision-support system that served to impede rather than push the views of those in whom both countries had trusted the air defence of North America. An argument could be made that when countries establish an operational-level command (bi-national or national) with specific responsibilities for which its commander is responsible and accountable, they also need to provide that commander with a means to ensure the command's requirements (both short and long-term) are one of the main driving factors informing political leadership in its thinking about defence matters.

As with the discussions between the Canadian Ambassador and the Secretary of the USAF, NORAD requirements and threat assessment do not seem to have reached the MND, and certainly not the Prime Minister. While the confused decision-making structure, dislike of committees, and seeming mistrust of senior military leadership were inescapable features of Diefenbaker's personality, there is evidence that he was failed by those entrusted with ensuring needed information was pushed forward. In this case, information that told of a potential US commitment to assist in the acquisition of larger numbers of CF-105s to meet NORAD requirements and answer an enduring threat to the continent did not reach Diefenbaker. While it is far from certain Diefenbaker would have jumped at this chance, and the cost of training fighter pilots would have to be factored into the whole defence program, the matter was rendered academic because of a blockage in information flow. As a result, the main voice from whom Diefenbaker heard was that of R.B. Bryce, whose focus on economics clouded his judgement.

### **Cancellation Justified by Numbers**

Before, during, and after the cancellation of the Arrow a series of numbers were thrown around about how much each aircraft would cost. As true now as then, it is difficult to pin down the exact cost of an F-35 or an Arrow, and games can be played with the numbers to support any preferred course of action. At such times, strategic courage is required to see past the numbers. Defence is not a business, and its value in the Cold War would only have been realized if the unthinkable happened. Yet seeing past the numbers requires receipt and understanding of information central

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<sup>180</sup> LAC MG32 B19 Papers of Douglas Harkness, volume 29, "Statement by Crawford Gordon, President, A.V. Roe Canada Ltd. To Annual Meeting of Shareholders, October 27, 1958, 2.

to those decisions. In its absence, assertion becomes the driving factor, to the detriment of sound decision-making.

The cost for each individual Arrow varied greatly depending on the case to be made. Early “estimates as to cost were from \$ 1 ½ to \$2 million per plane.”<sup>181</sup> This was based on nineteen air defence squadrons, some of which were auxiliary squadrons. The technical sophistication and speed of the aircraft made it evident by 1955 “that it would be impractical to arm the auxiliary squadrons with this aircraft. So with the phasing out of the auxiliary squadrons from the fighter role, the requirements for the CF-105 dropped to about 150 aircraft.”<sup>182</sup> These numbers took no note of the interest displayed by both the United Kingdom and the USAF to equip both RAF and RCAF squadrons with these aircraft at larger numbers than for which the RCAF originally planned. Moreover, the lack of foresight in strategic planning failed to consider the re-equipping of the Air Division in Europe with these aircraft and thus maintain a level of control over the roles for which these squadrons would be responsible. In a statement rendered true because of the poor flow of relevant information to the Prime Minister, it was alleged that all “efforts to interest either the United States or the United Kingdom in this aircraft failed, although when this aircraft was first conceived neither the United States nor the United Kingdom had in their planning any comparable aircraft.”<sup>183</sup>

The inflation of the costs of the Arrow continued, with the Prime Minister being advised by Bryce that the price of each aircraft had reached \$9 million. Indeed, the numbers game continued after the decision to scrap the Arrow was made. In a statement to a Special Committee on Defence Expenditures, the Minister of National Defence, George Pearkes, later alleged that the cost per aircraft had reached \$12.5 million, to which Defence Critic Paul Hellyer responded that he would like an accounting of how that figure was reached “because the cost of this plane seems to have grown, even after the cancellation.”<sup>184</sup>

Of critical importance, and a factor that seemed to draw limited concern, were the stated requirements of the air defence commander, in the context of a reasonable appreciation of the threat, which should have driven the decision-making. At the end of the day, in the undoubtedly biased, but nonetheless true, words of Crawford Gordon, the main advantage of the Arrow “was specifically designed to fit the RCAF requirement for a manned interceptor in the time period involved.”<sup>185</sup> In fact, the

CF-105, with the larger and more elaborate radar “dish”, and the inclusion of a navigator in addition to the pilot, [made] it a more suitable aircraft for operation on the periphery of the air defence system of North America, where the air

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<sup>181</sup> DHH 72/1223 Raymont Papers Series 6, File 3005 Special Committee on Defence Expenditures, nd., 89.

<sup>182</sup> *Ibid.*

<sup>183</sup> *Ibid.*, 89.

<sup>184</sup> *Ibid.*, 90.

<sup>185</sup> LAC MG 32 B19 Papers of Douglas Harkness volume 29, “Statement by Crawford Gordon, President, A.V. Roe Canada Ltd. To Annual Meeting of Shareholders: The Arrow and Iroquois Programs”, 27 October 1958, 1.

defence system [was] limited to early-warning, and radar control [was] far more elementary than in the more heavily defended areas of the United States.<sup>186</sup>

While the Bomarc potentially was a useful supplement to manned interceptors, being somewhat cheaper but less flexible, they were useless without nuclear warheads and dependant on the Semi-Autonomous Ground Environment (SAGE) control centres which would have been key targets in any Soviet attack. Moreover, while manned fighters could be recalled and redirected as needed, the same could not be said of a missile, the use of which from the Northern United States would bring the effects 'up close and personal' to Canadian cities just north of the border. Aircraft of the Arrow's speed launched from Canadian bases would have moved the fight further north.

In the end, the confused decision-making structure complete with obstacles to critical information on RAF interest and a USAF desire to see the Arrow in RCAF service in large numbers as a main contribution to continental defence; an inaccurate threat assessment without full access to the appreciation by the commander of the bi-national air defence command; and no way to ensure military advice reached the Prime Minister except through R B Bryce, who was serving as a *de facto* National Security Advisor himself without proper support, all led to incoherent decisions on critical defence issues.

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<sup>186</sup> LAC, RG 25 volume 4583 File 50046-40 part 5, ATIP A200700057, Memorandum from Defence Liaison (1)/G. Ignatieff, "Reappraisal of the CF-105 Development Programme – Some broader economic and political implications", 4 November 1955, 3.

## 4 Conclusions

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This case-study has focused on defence decision-making and information flow to political leadership from both military and civilian advisors. The obstacles to the smooth flow of relevant perspectives and requirements, some created by Diefenbaker and some of which he was merely a victim, led directly to decision-making in a vacuum without a true appreciation of a) the nature of the Soviet threat, b) where Canada could and should focus its limited defence resources in direct defence of its own population centres and as a contribution to the USAF strategic deterrent, and c) how the partnership with the US could be exploited to mutual advantage. There are many layers of inadequacy responsible for creating this situation, from Diefenbaker's mistrust of military advice through to a lack of focused defence advice brought about by parochial service interests and further complicated by the bi-national nature of NORAD. Both factors are as relevant to today's defence and security decision-making as they were then. While the contemporary threat environment may be different, coming to terms with uncertainty is not. In the case of defence requirements, hearing from the Commander with the responsibility and accountability for conducting operations is the only way to ensure a realistic statement of requirements and avoid being subjected to parochial service interests. In the case of continental air defence, however, this is complicated by the bi-national nature of NORAD under an American commander.

The effect of this strategic laziness was a failure to close the circle on some important issues. On the one hand the 1957-58 decision to enter into an air defence arrangement with the USAF made a great deal of sense given the serious threat posed by the manned Soviet bomber, as did the decision to begin development of the Avro Arrow, a made-in-Canada solution to this problem. However, key pieces of information on the nature of the Soviet air and missile threat to North America and an interest by both the British and Americans in the Avro Arrow never reached either the MND or Diefenbaker. Neither did the willingness of senior US officials to fund far larger numbers of Arrows for the RAF and RCAF than either had ever dreamt possible. While it is not certain this would have swayed Diefenbaker away from cancelling the Arrow, doing so armed with this information would have displayed a far greater lack of strategic courage than even Diefenbaker's worst opponents accused him of possessing. At the very least, it would have made it clear that if the Arrow was to be cancelled, some clear plans had to be in place to provide a replacement for the obsolete CF-100 before it was cancelled. Failure to do so, especially by a government overly concerned with the preservation of Canadian sovereignty, forced Canadian officials to at least consider the placement of USAF fighters on Canadian bases as a means to close a serious hole in the air defences of North America. CINCNORAD knew better than any other commander the nature of this threat, but his advice went to the Canadian Chiefs of Staff whose decisions had to be unanimous. In this context, the advice to Diefenbaker's government consisted of a watered-down compromise with the other service chiefs.

These issues are of particular relevance today, given the ongoing CF transformation efforts. When this paper was written, there were two operational commands, Canada Command and CEFCON, ideally positioned to provide joint requirements built on service-specific expertise that have the potential to bring operationally-focused defence requirements forward to government. These commands, vice the desires of the services, should be the loudest and arguably the only voices telling the services what capabilities they require for current operations, and what future capabilities are needed to position them for success. Even when these two commands are merged

into one, this perspective should drive defence acquisition or at least set boundaries around the capabilities considered.

This case also reinforces the fact that advice to senior military and civilian leadership must follow structured organisational pathways to get the right information to decision-makers in a timely fashion. It has been shown here that when those pathways are ignored, and advice is allowed to deteriorate into a random series of informal discussions where perspectives are abandoned in favour of uninformed opinions of mandarins whose authority is derived from proximity and personal relations rather than expertise, incoherent decision-making is difficult to avoid. At the very least, under such circumstances the vagaries of a leader's personality are most keenly felt, not always to the benefit of sound decision-making. *Ad hoc* discussions are no substitute for informed decision-making, and as this case demonstrates, can have disastrous consequences for the national security debate, Canada's status as a reliable ally, and Canadian and continental security writ large.

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## **List of symbols/abbreviations/acronyms/initialisms**

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CF	Canadian Forces
CINC	Commander-in-Chief
CINCNORAD	Commander-in-Chief NORAD
ICBM	Inter-Continental Ballistic Missile
LGen	Lieutenant-General
MCC	Military Cooperation Committee
MND	Minister of National Defence
NATO	North Atlantic Treaty Organization
NORAD	North American Air Defense Command
NSC	National Security Council
PJBD	Permanent Joint Board on Defence
RAF	Royal Air Force
RCAF	Royal Canadian Air Force
RCN	Royal Canadian Navy
SAC	Strategic Air Command
SACEUR	Supreme Allied Commander Europe
SAGE	Semi-Autonomous Ground Environment
UN	United Nations
UNGA	United Nations General Assembly
US	United States
USAF	United States Air Force

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This case-study focuses on defence decision-making and information flow to political leadership from both military and civilian advisors. The obstacles to the smooth flow of relevant perspectives and requirements, some created by Diefenbaker and some of which he was merely a victim, led directly to decision-making in a vacuum without a true appreciation of a) the nature of the Soviet threat, b) where Canada could and should focus its limited defence resources in direct defence of its own population centres and as a contribution to the USAF strategic deterrent, and c) how the partnership with the US could be exploited to mutual advantage. The effect of this strategic laziness was a failure to close the circle on some important issues. On the one hand the 1957-58 decision to enter into an air defence arrangement with the USAF made a great deal of sense given the serious threat posed by the manned Soviet bomber, as did the decision to begin development of the Avro Arrow, a made-in-Canada solution to this problem. However, key pieces of information on the nature of the Soviet air and missile threat to North America and an interest by both the British and Americans in the Avro Arrow never reached either the MND or Diefenbaker. Neither did the willingness of senior US officials to fund far larger numbers of Arrows for the RAF and RCAF than either had ever dreamt possible. While it is not certain this would have swayed Diefenbaker away from cancelling the Arrow, doing so armed with this information would have displayed a far greater lack of strategic courage than even Diefenbaker's worst opponents accused him of possessing. At the very least, it would have made it clear that if the Arrow was to be cancelled, some clear plans had to be in place to provide a replacement for the obsolete CF-100 before it was cancelled.

This case also reinforces the fact that advice to senior military and civilian leadership must follow structured organisational pathways to get the right information to decision-makers in a timely fashion. It has been shown here that when those pathways are ignored, and advice is allowed to deteriorate into a random series of informal discussions where perspectives are abandoned in favour of uninformed opinions of mandarins whose authority is derived from proximity and personal relations rather than expertise, incoherent decision-making is difficult to avoid. *Ad hoc* discussions are no substitute for informed decision-making, and as this case demonstrates, can have disastrous consequences for the national security debate, Canada's status as a reliable ally, and Canadian and continental security writ large.

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CF-105, Avro Arrow, Canada-US relations, Strategic Defence Relationship, Strategic Culture, North American Air Defense Command, NORAD, decision-support, decision-making, Cold War, ICBM, Threat Perception, Soviet manned bomber, Continental Defence



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