

NEOCLASSICAL REALISM
AND THE AVRO CF-105 ARROW

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ABSTRACT

This thesis analyses the key decisions made by the Diefenbaker government leading to the cancellation of the CF-105 Avro Arrow in 1958 and 1959, and more particularly the domestic factors that influenced those decisions. Utilizing a theoretical framework known in the theoretical literature as neoclassical realism, the thesis explores how and under what circumstances domestic variables can influence the capacity of a state, or its government, to respond to the imperatives created by the international security environment.

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Dedication

For Cam Kowsari.

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Glossary of Abbreviations

BOMARC - Boeing Michigan Aeronautical Research Centre

CC - Cabinet Conclusions

CDC - Cabinet Defence Committee

CSC - Chiefs of Staff Committee

DEA - Department of External Affairs

DHH - Directorate of History and Heritage

DND - Department of National Defence

DRB - Defence Research Board

ICBM - Intercontinental Ballistic Missile

MP - Member of Parliament

NATO - North Atlantic Treaty Organization

NORAD - North American Air Defence Command

RCAF - Royal Canadian Air Force

SAC - Strategic Air Command

SAGE - Semi-Automatic Ground Environment

SSEA - Secretary of State for External Affairs

UK - United Kingdom

US - United States

INTRODUCTION

The popular literature on the Avro CF-105 Arrow characterizes the cancellation of the heralded fighter-interceptor aircraft as a national ‘tragedy,’ an inexcusable gaffe on the part of Canadian Prime Minister John Diefenbaker and his government.¹ Diefenbaker, it is argued, failed to see the huge industrial and military potential represented by this technologically advanced, all-Canadian state-of-the-art aircraft. Some of the critics blame the US Administration for the Arrow affair because of its refusal to purchase, or help finance, the aircraft for use on the front-line of North American defence.² The popularized view is that the Arrow program should have been continued regardless of its admittedly vast cost, because it was the leading fighter aircraft under development in the western world: “...The world’s finest aircraft, which would have rocketed Canada into global aerospace leadership, had been shot down by bumbling fools acting out an American-driven agenda. Thus a national dream died, and Canada began its descent into mediocrity.”³

This popularized account of the fate of the CF-105 Arrow has never been accepted by professional historians and political scientists who, however, have declined to undertake a major singular study of the Arrow project. The first piece on the Arrow by an academic was a section of a chapter in Jon B. McLin’s *Canada’s Changing Defense Policy, 1957-1963: The Problems of a Middle Power in Alliance*, published in 1967. Since McLin wrote, the only published works on

¹ The best known proponents of this view are Murray Peden, *Fall of an Arrow*, 5th ed. (Toronto: Stoddart Publishing Co., 2001), and E. Kay Shaw, *There Never Was An Arrow* (Toronto: Steel Rail Educational Publishing, 1979).

² The leading proponent of this view is Palmiro Campagna, who has published four editions of *Storms of Controversy*; see also *Requiem for a Giant*.

³ Michael Bliss, “Arrow That Doesn’t Fly,” *Time*, January 20, 1997, 49.

the Arrow by academics includes a section in James Dow's *The Arrow*, articles by Desmond Morton,⁴ Michael Bliss,⁵ J.L. Granatstein,⁶ James Eayrs,⁷ part of a chapter in Denis Smith's *Rogue Tory*,⁸ and two articles by Donald C. Story and Russell Isinger.⁹ With the exception of Smith, academics have made an attempt to dispel some of the myths surrounding the Arrow's cancellation. Most recently, Story and Isinger have found that "the decisions that led to the aircraft's cancellation were made early on by the Liberal government of Prime Minister Louis St. Laurent, which initiated the project and allowed it to accelerate and expand beyond salvage."¹⁰

This thesis seeks to make a contribution to the academic literature on the Arrow by analyzing the key decisions made by the Diefenbaker government on the Arrow's cancellation in 1958-59, and more particularly the domestic factors that influenced those decisions. Utilizing a theoretical framework known as neoclassical realism, the thesis explores how and under what circumstances domestic variables can influence the capacity of a state, or its government, in

⁴ Desmond Morton, "A Revisionist Perspective on the Avro Arrow," *The Toronto Star*, 20 February 1986.

⁵ Bliss, "Arrow That Doesn't Fly," 49.

⁶ J.L. Granatstein, "The Myth of Broken Arrow," *The Globe and Mail*, 11 January 1997 and "We Shot an Arrow in the Air," *Literary Review of Canada* 11, no. 5 (June 2003): 26-27.

⁷ James Eayrs, "Arrow (1): the Untold Story of CF-105," *Ottawa Citizen*, 19 February 1974, "Why it was Wise to Axe the Arrow," *Ottawa Citizen*, 20 February 1974.

⁸ Denis Smith, *Rogue Tory: The Life and Legend of John G. Diefenbaker* (Toronto: MacFarlane Walter & Ross, 1995), 317-25.

⁹ Russell Isinger and Donald C. Story, "The Plane Truth: The Avro Canada CF-105 Arrow Program," in *The Diefenbaker Legacy: Canadian Politics, Law and Society Since 1957*, ed. D.C. Story and R. Bruce Shepard (Regina: Canadian Plains Research Center, 1998); Donald C. Story and Russell Isinger, "The Origins of the Cancellation of Canada's Avro CF-105 Arrow Fighter Program: A Failure of Strategy," *Journal of Strategic Studies* 30, no. 6 (2007):1025-1050; see also: Donald C. Story, "Canadian Defence Policy: The Case Of The Avro Arrow," (MA paper, University of Toronto, 1970); Russell Steven Paul Isinger, "The Avro Canada CF-105 Arrow Program: Decisions and Determinants" (MA paper, University of Saskatchewan, 1997).

¹⁰ Story and Isinger, "The Origins of the Cancellation," 1026; Isinger, "The Avro Canada CF-105 Arrow Program: Decisions and Determinants."

responding to the imperatives created by the international security environment. In the case of the Arrow, the thesis examines how the Diefenbaker government's decision to cancel the aircraft program was a response to changes in the perception of the Soviet military threat to North America in the late 1950s but was influenced by disagreements between the government's military advisers over the defence budget, differences within Cabinet over the government's economic and social policy priorities, and pressure on the government exerted by the media, corporate, and other special interests, and public opinion.

Neoclassical realism¹¹ does not seek to make broad generalizations over time. Instead, it is useful as a framework for analyzing a particular country's response to the imperatives of the international system at a specific point in time. As a theory, it is useful because it seeks to build on realist propositions, and employs a case-study method to address important questions about the foreign and security policies of states.¹² This thesis presents a case study of decision-making

¹¹ See Gideon Rose, "Neoclassical Realism and Theories of Foreign Policy," *World Politics* 51, no. 1 (October 1998): 144-72; Thomas J. Christensen, *Useful Adversaries: Grand Strategy, Domestic Mobilization, and Sino-American Conflict, 1947-1958* (Princeton, NJ: Princeton University Press, 1996); Randall L. Schweller, *Deadly Imbalances: Tripolarity and Hitler's Strategy for World Conquest* (New York: Columbia University Press, 1998); William C. Wohlforth, *The Elusive Balance: Power and Perceptions during the Cold War* (Ithaca, NY: Cornell University Press, 1993); Fareed Zakaria, *From Wealth to Power: The Unusual Origins of America's World Role* (Princeton, NJ: Princeton University Press, 1998); Steven E. Lobell, Norrin M. Ripsman, and Jeffrey W. Taliaferro, eds., *Neoclassical Realism, the State, and Foreign Policy* (Cambridge: Cambridge University Press, 2009). Main proponents of structural realism include Kenneth N. Waltz, *Theory of International Politics* (McGraw Hill: Michigan University, 1979); Robert Gilpin, *War and Change in World Politics* (Cambridge: Cambridge University Press, 1981); Robert Jervis, "Cooperation under the Security Dilemma," *World Politics* 30, no. 2 (January 1978): 167-214; Glenn H. Snyder, *Alliance Politics* (Ithaca, NY: Cornell University, 1997); Charles L. Glaser, "Realists as Optimists: Cooperation as Self-Help," *International Security* 19, no. 3 (Winter 1994/5): 50-90.

¹² Randall Schweller, "The Progressiveness of Neoclassical Realism," in *Progress in International Relations Theory: Appraising the Field*, eds. Colin Elman and Miriam Fendius Elman (Cambridge: MIT Press, 2003), 317.

by the government of Prime Minister John Diefenbaker that focuses on decisions by the government in September 1958 to curtail the Arrow program and in February 1959 to cancel it. The case shows how a government's response to the strategic environment of the moment can be influenced by two categories of intervening domestic variables identified by neoclassical realism: differences and disagreements between the elite decision-makers over strategic imperatives and government policy priorities, and pressures expressed through legislative channels from the media, special interests and public opinion.

In this study, the perceptions, interactions and cohesion between elites are assessed by examining minutes from meetings of the Cabinet and Cabinet Defence Committee (CDC), and the deliberations of the Chiefs of Staff Committee (CSC), which was advising the government on the development and production of defence weapons systems in the 1950s. These committees were highly influential in framing executive or elite thinking on Canada's security policy, reflecting the different perceptions by leaders of the security threat to North America, and ultimately on the viability of the Arrow program.

Secondly, the thesis identifies and examines the influence of forces that were exerting pressure through the legislature on elites by analyzing the content of House of Commons *Debates*, as well as reports and articles that appeared in newspapers across the country in the months leading up to the aircraft program's cancellation. It measures the impact of the media and public opinion on the Arrow program, and moreover provides insight into the pressures on the government from corporate and other special interests.

The theory of neoclassical realism claims that domestic actors such as government elites, policy advisers, legislators, economic interests, the media, and public opinion can exert a

“...decisive influence on how the state interprets international threats and opportunities, and how it responds to them.”¹³ The domestic actors that exert the greatest influence, Norrin Ripsman says, “...are those that have sufficient power to remove the leader or executive from office, those that can ... obstruct the government’s programmatic goals, or those that can shape the definition of national interests.”¹⁴ The thesis provides evidence to verify such a claim.

¹³ Norrin M. Ripsman, “Neoclassical realism and domestic interest groups,” in *Neoclassical Realism, the State and Foreign Policy*, eds. Lobell, Ripsman, and Taliaferro (New York: Cambridge University Press, 2009), 192.

¹⁴ *Ibid.*, 192.

CHAPTER ONE

Neoclassical Realism

This thesis will utilize the theoretical framework afforded by neoclassical realism to analyze the factors that influenced the Diefenbaker government when making decisions surrounding the Avro CF-105 Arrow fighter-interceptor program in 1958 and 1959.

Neoclassical realism, part of a new wave of realist thinking, was developed by Gideon Rose and further refined by Thomas Christensen, Aaron Freidberg, Randall Schweller, Jack Snyder, William Wohlforth and Fareed Zakaria. It argues that international systemic pressures that create imperatives for states are mediated by intervening domestic variables, which in turn affect the substance of their foreign and security policies.¹⁵ The Diefenbaker government's decisions leading to the cancellation of the Arrow program are examined here as a product of international strategic imperatives influencing Canada in the late 1950s, but which were mediated by domestic forces that delayed and almost reversed the eventual outcome.

Neoclassical realism is a theoretical framework that arises out of the earlier theories of classical realism¹⁶ and structural realism.¹⁷ Specifically, neoclassical realism:

¹⁵ Randall L. Schweller, *Unanswered Threats: Political Constraints on the Balance of Power* (New Jersey: Princeton University Press, 2006), 6; see also Rose, "Neoclassical Realism," 144-172; Michael E. Brown et al., eds. *The Perils of Anarchy: Contemporary Realism and International Security* (Cambridge: MIT Press, 1995); Christensen, *Useful Adversaries*; Schweller, *Deadly Imbalances*; Wohlforth, *The Elusive Balance*; Zakaria, *From Wealth to Power*.

¹⁶ See Hans Morgenthau, *Politics Among Nations* (New York: Knopf, 1948); works by Henry Kissinger, Reinhold Niebuhr and Arnold Wolfers.

¹⁷ See works by Kenneth N. Waltz, *Theory of International Politics* (McGraw Hill: Michigan University, 1979); Gilpin, *War and Change in World Politics*; Robert Jervis, "Cooperation under the Security Dilemma," *World Politics* 30, no. 2 (January 1978): 167-214; Snyder, *Alliance Politics*; Glaser, "Realists as Optimists," 50-90.

seeks to explain why, how, and under what conditions the internal characteristics of states – the extractive and mobilization capacity of politico-military institutions, the influence of domestic societal actors and interest groups, the degree of state autonomy from society, and the level of elite or societal cohesion – intervene between the leaders’ assessment of international threats and opportunities and the actual diplomatic, military, and foreign economic policies those leaders pursue. Neoclassical realism posits an imperfect “transmission belt” between systemic incentives and constraints, on the one hand, and the actual diplomatic, military, and foreign economic policies states select, on the other.¹⁸

Gideon Rose first used the term “neoclassical realism” in a 1998 review article in *World Politics*, describing it as a framework that:

...explicitly incorporates both external and internal variables, updating and systematizing certain insights drawn from classical realist thought. Its adherents argue that the scope and ambition of a country’s foreign policy is driven first and foremost by its place in the international system and specifically by its relative material power capabilities. This is why they are realist. They argue further, that the impact of such power capabilities on foreign policy is indirect and complex, because systemic pressures must be translated through intervening variables at the unit level. This is why they are neoclassical.¹⁹

Although neoclassical realism places the state in the larger context of an unchanging anarchic international environment, or rather sees systemic forces as driving the behaviour of states and their leaders who are charged with making foreign and security policy decisions, it recognizes that the actions by the state are nevertheless influenced by domestic-level variables.²⁰ Because different states often react differently to changes in the external environment, neoclassical

¹⁸ Jeffrey W. Taliaferro, Steven E. Lobell, and Norrin Ripsman, “Introduction: Neoclassical realism, the state, and foreign policy,” in *Neoclassical Realism, the State and Foreign Policy* ed. Lobell et al. (Cambridge: Cambridge University Press, 2009), 4.

¹⁹ Rose, “Neoclassical Realism,” 146.

²⁰ Lobell, Ripsman, and Taliaferro, *Neoclassical Realism, the State and Foreign Policy*, 25, 43, 192.

realism posits that their responses may be due more to domestic structures and political processes than solely to changes in that environment.²¹

According to neoclassical realism, there are two major domestic variables that can influence a state's ability to pursue its security interests, or rather to respond to international security and power imperatives: the perceptions, interactions and cohesion between the executive-level elites within the state; and the domestic influence of the "legislature" or "legislative arrangements" of the state.

The first domestic influence on a state's foreign policy, according to neoclassical realism, comes from the perceptions, interactions and cohesion between elite actors at the executive level. Foreign policy, according to Ripsman, is conducted by a "foreign security policy executive" that includes a head of government, ministers and senior government advisers.²² These foreign policy elites are seen as the "ultimate 'managers' of security concerns and 'guardians' of national security."²³ The state does not make decisions as a monolithic body that holds one world view: rather such decisions come from the elites that make up the foreign security policy executive, who sometimes have different views of the state's place in the international strategic environment, and who also sometimes exhibit varying degrees of cohesiveness in deciding government policy and financial priorities.²⁴ "Statesmen," Fareed Zakaria reminds us, "not states, are the primary actors in international affairs, and their perceptions of shifts in power,

²¹ Schweller, *Unanswered Threats*, 6.

²² Ripsman, "Neoclassical realism and domestic interest groups," 171.

²³ Wayne McLean, "Neoclassical realism and Australian foreign policy: understanding how security elites frame domestic discourses," *Global Change, Peace & Security* 28 (2016): 6.

²⁴ Taliaferro, Lobell, Ripsman, "Introduction," 28.

rather than objective measures, are critical.”²⁵ Any disagreement between elites over what the state’s strategic imperatives are can act as an influential intervening variable. To determine how a state’s view of the international strategic environment is influenced by domestic actors is to assess which leaders’ perceptions are decisive in the decision-making process, and how different leaders view the domestic political risks associated with the various choices available to them.²⁶ An important determinant may be disagreements between the members of the military elite who are charged with advising government leaders on the nature of the threats present in the international environment; such differences can “inhibit the state’s ability to respond to systemic pressures”²⁷ and even “force [elites] into pursuing counterproductive foreign and security policies.”²⁸

The second domestic influence on a state’s foreign policy is the “legislature” or “legislative arrangements” by which societal actors such as the media, special interests and public opinion get their hearing by government.²⁹ According to Norrin M. Ripsman, such influences get filtered through the legislature, thereby affecting security policy decisions.³⁰ These domestic influences, according to Michael Foulon, “make themselves felt through state policymakers, but only within the context of binding geopolitical factors that constrain.”³¹

²⁵ Zakaria *From Wealth to Power*, 42.

²⁶ Randall Schweller, “Unanswered Threats: A Neoclassical Realist Theory of Underbalancing,” *International Security* 29, no. 2 (Fall, 2004): 169.

²⁷ Taliaferro, Lobell, Ripsman, “Introduction,” 28.

²⁸ *Ibid.*, 32.

²⁹ Ripsman, “Neoclassical realism and domestic interest groups,” 170-171.

³⁰ *Ibid.*, 170.

³¹ Michael Foulon, “Neoclassical Realism: Challengers and Bridging Identities,” *International Studies Review* 17 (2015): 636.

Ripsman argues that such influences having the greatest impact on foreign policy decisions are those that have a significant presence in key voting regions of the country.

When utilized as a framework for examining the Diefenbaker government's decisions regarding the Avro CF-105 Arrow, the theory of neoclassical realism draws attention to the influence that intervening domestic variables can have on a state's strategic decision-making. In the Arrow case, the strategic realities of the new missile age, which rendered fighter-interceptor aircraft questionable, dictated the likelihood of the aircraft's cancellation but were not determinative until reinforced by other domestic influences, and until still other domestic influences constraining the government were overcome. In the end, the massive costs of the Arrow development and production program turned the military chiefs of staff and the Cabinet against the fighter program, and overcame a number of domestic influences that were supporting its continuation; these included the concerns of the Prime Minister and the other progressive Ministers about the possible domestic impact of cancellation on Canada's unemployment situation; pressures emanating from passionate supporters of the Arrow project, including the senior staff of the Royal Canadian Air Force, executives and employees at the aircraft's manufacturer, Avro Aircraft, and public and media fascination with a sleek leading-edge fighter-interceptor.

The Origins of the Arrow and the Changing Strategic Environment 1953-57

To understand the decisions made by the Diefenbaker government regarding the CF-105 Arrow program in 1958-59, it is necessary to provide background information about the origins of the Arrow program and its expansion from 1953 to 1957. The CF-105 Arrow program began

under the Liberal government of Prime Minister Louis St. Laurent in the early 1950s, when Canada's strong position among the western economies allowed the country to pursue a confident military posture towards the Soviet Union: this included the design and development of advanced military weapons such as the Arrow.³² Canada's post-war economy was booming due to strong consumer demand, resource exploitation, and expansion in manufacturing – all of which benefited from an increase in military spending.³³ The Korean War had ended but the Soviet Union's explosion of a thermonuclear device in 1953 led senior officials in Canada's Department of National Defence to believe that the Soviets posed an unprecedented threat to the western democracies. The consequence was an intensification of Canada's military build up during the next ten years.³⁴ During the Korean War, the Canadian aircraft industry had been an important source of supply for the overwhelmed US defence industry, and had proved its capability in designing and producing the CF-100 long-range interceptor and the Argus maritime reconnaissance aircraft, as well as producing one of the more advanced versions of the US-designed F-86 Sabre.³⁵ The First Canadian Air Division had contributed 12 squadrons of F-86

³² Roger Sarty, "The Interplay of Defence and Foreign Policy," in *Canada Among Nations, 2008: 100 Years of Canadian Foreign Policy*, ed. Robert Bothwell (Montreal: McGill-Queen's University Press, 2009), 132; James Dow, *The Arrow* (Toronto: James Lorimer & Company Limited, 1979), 84.

³³ Dow, *The Arrow*, 83.

³⁴ Andrew Richter, *Avoiding Armageddon: Canadian Military Strategy and Nuclear Weapons 1950-63* (Vancouver and Toronto: UBC Press, 2002), 8.

³⁵ Jon B. McLin, *Canada's Changing Defense Policy, 1957-1963: The Problems of a Middle Power in Alliance* (Baltimore: Johns Hopkins Press, 1967), 62.

Sabre fighters to NATO's European air defences.³⁶ all of which proved Canada's ability to produce and design quality aircraft, and set the stage for the production of the advanced Arrow.³⁷

The Arrow was a sophisticated, highly ambitious, all-weather Canadian fighter-interceptor aircraft. Although Royal Canadian Air Force (RCAF) officials had been planning a successor to the CF-100 as early as 1948, it was not until April 1953 that the RCAF obtained approval from the St. Laurent government for its development. The government contracted with A.V. Roe Company (a subsidiary of a British conglomerate, Hawker Siddeley based out of Malton, Ontario) to design and develop the aircraft; it was a state of the art fighter-interceptor with the capability of defending Canada against the most advanced bombers that the Soviet Union might send across the polar north.³⁸ The Arrow would be built specifically for Canada's extreme climate and vast geographic distances, having two engines, two seats, a combat speed of Mach 1.5, and a combat altitude of 50,000 feet.³⁹ In what would end up working against the choice of the Arrow by the US or NATO as a front-line fighter, the RCAF's sophisticated operating requirements for the aircraft made it far more expensive and thus much less marketable than other comparable aircraft then under development in the US and the UK.

³⁶ James Eayrs, *In Defence of Canada: Growing Up Allied* (Toronto: University of Toronto Press, 1980), 211, 220.

³⁷ Dan Middlemiss, "The Road From Hyde Park: Canada-U.S. Defence Economic Cooperation," in *Fifty Years of Canada-United States Defense Cooperation: The Road From Ogdensburg*, ed. Joel J. Sokolsky and Joseph T. Jockel (Queenston: Edwin Mellen Press, 1992), 183.

³⁸ Larry Milberry, *Sixty Years: The RCAF and CF Air Command 1924-1984* (Toronto: Bryant Press Limited, 1985), 317.

³⁹ Story and Isinger, "The Origins of the Cancellation," 1028.

At this time the government was spending more money on national defence than on the totality of government expenditures on health and welfare services.⁴⁰ This massive spending on national defence had been replicated in other Western nations in response to Soviet expansionism in the early 1950s.⁴¹ However, there were growing apprehensions in the Canadian Cabinet, and a concern by Canada's Minister of National Defence, Brooke Claxton, that increased defence spending might prove dangerous to Canada's financial situation. By the spring of 1953, Finance Minister Douglas Abbott made the first cut to the Department of National Defence budget since 1947.⁴²

Cuts to the defence budget added to a list of difficulties facing the Arrow. Avro had originally been asked to design just the airframe for the Arrow; the engines and the armament would be built by other contractors in the UK or US. However, when foreign engines were found to be deficient, and A.V. Roe decided it wanted an electronics system being developed by Hughes Aircraft Co., what was originally a project to develop an airframe came to encompass an engine, electronics and an air-to-air missile.⁴³ Thus, wrote Julius Lukasiewicz, "the CF-105 program, which as originally conceived involved only one major development – the airframe – in Canada, had grown to unmanageable proportions through the addition of engine, missile, and fire control projects."⁴⁴

⁴⁰ Defence spending in 1952 accounted for \$1.441 billion in a \$3.647 billion budget – nearly 40 percent of the total budget was spent on defence. See *Debates*, 8 April 1952, 1247; Story and Isinger, "The Origins of Cancellation," 1029.

⁴¹ Carter Malkasian, *The Korean War* (New York: The Rosen Publishing Group 2001), 71.

⁴² Eayrs, *In Defence of Canada*, 208-209.

⁴³ Julius Lukasiewicz, "Canada's Encounter with High-Speed Aeronautics," *Technology and Culture* 27, no. 2 (1986): 229.

⁴⁴ *Ibid.*

As early as 1955, the Liberal government was growing wary of the increased costs associated with the Arrow program. Defence Production Minister C.D. Howe stated in the House of Commons that the government had already spent about \$30 million on the Arrow and that upon completion, the development costs would be about \$100 million.⁴⁵ The government could see that program costs were growing. However, cancellation of the Arrow at that point would have been difficult to justify to the Canadian public; as one Minister told his Cabinet colleagues: “the government would be faced with explaining why it had spent over \$50 million on the project and then dropped it” with no tangible defence to show for public moneys spent.⁴⁶ The costs of the Arrow had risen nearly tenfold from the initial \$27 million aircraft development contract in December 1953, to \$261 million in two years, and in September 1955, Avro’s request for an additional \$59 million⁴⁷ brought the cabinet to request a complete re-appraisal of the program. Cabinet Conclusions for a 7 December 1955 meeting show Ministers calling for a “...thorough re-appraisal of the whole program” due to rising costs, especially when it had not yet been “...demonstrated that the new plane was a success.”⁴⁸ One of the Ministers described the increased cost of the aircraft as “frightening” – and argued that a slowing of the Arrow program would only “postpone the time at which it might have to be admitted that the cost of adequate air defence was more than Canada could bear.”⁴⁹

⁴⁵ R.H. Roy, *For Most Conspicuous Bravery, A Biography of Major-General George R. Pearkes, V.C., through Two World Wars* (Vancouver: University of British Columbia Press, 1977), 313.

⁴⁶ Library and Archives Canada (LAC), Records of the Privy Council Office, RG2, Cabinet Conclusions, 07 December 1955.

⁴⁷ LAC, PCO, Cabinet Conclusions, 28 September 1955.

⁴⁸ LAC, PCO, Cabinet Conclusions, 07 December 1955.

⁴⁹ Ibid.

The results of the re-appraisal were inconclusive but, in any case, the Liberals, facing a general election, considered it politically unwise to cancel the program at that time. C.D. Howe would later recall that the government knew that cancellation was inevitable but was going to await the outcome of the election.⁵⁰ Had the Liberals been returned to power, senior External Affairs official John Holmes would later write, “there is little doubt that they would have cancelled the Arrow Program.”⁵¹ However, the Liberals were defeated in the election, which left the newly elected government of John Diefenbaker and his new Minister of National Defence, George Pearkes, to face the troublesome question of what to do about the Arrow program.

A key responsibility for a state’s military elite involves determining its security strategy by assessing systemic threats and opportunities. Canada’s security strategy during the early 1950s, according to Matthew Trudgen, envisaged:

the creation of a strong peacetime defence relationship with the United States, which included the development of the North American air defence system. Canada would also work with the Americans to help support and sustain the effectiveness of the U.S. nuclear deterrent, the bulwark for the security of the Western Alliance.”⁵²

The air defence system included three tiers of defensive radar lines, including the Pinetree Line, the Mid Canada Line, and the Distant Early Warning (DEW) Line,⁵³ for detecting incoming Soviet bomber aircraft, and squadrons of fighter-interceptor aircraft for blunting the bomber attack. With little formal coordination of North American air defences at this time, Canada’s military leadership considered the development of a leading-edge fighter-interceptor aircraft

⁵⁰ Story and Isinger, “The Origins of the Cancellation,” 1032.

⁵¹ Isinger and Story, “The Plane Truth,” 48.

⁵² Matthew Trudgen, “A Canadian Approach: Canada’s Cold War Grand Strategy, 1945 to 1989,” *Journal of Military and Strategic Studies* 14, no. 3&4 (2012): 4.

⁵³ Joseph T. Jockel and Joel J. Sokolsky, “Canada’s Cold War Nuclear Experience,” in *Pondering NATO’s Nuclear Options*, ed. David G. Haglund (Kingston: Queen’s Quarterly, 1999), 116-117.

represented by the CF-105 Arrow to be an important part of Canada's contribution to North American defence.⁵⁴ However, by 1954 the US Secretary of State John Foster Dulles announced the New Look, which, with its notion of massive retaliation, changed the thrust of US security strategy categorically from defence to deterrence. It was still desirable to provide, as the Chairman of the US Chiefs of Staff confirmed, an "adequate" air defence for North America, but it must be realized that no air defence network, however formidable, could protect North America from a massive bomber attack, and certainly not from an attack by Soviet intercontinental ballistic missiles carrying atomic weapons. Security for North America would now come from Soviet fears of the unleashing of the nuclear forces of the US Strategic Air Command (SAC). In such a security system, what the US wanted from Canada was not a leading-edge fighter interceptor to blunt the attack of Soviet bombers, but effective radar warning lines that would provide security for the deterrent or, in the case of a Soviet attack, give sufficient time for SAC aircraft to get off their bases and on their way to the Soviet Union.⁵⁵ As for the nature of the air defence system that was to give "adequate" and cost-effective defence against a Soviet bomber attack, it would now include a surface-to-air missile called BOMARC, semi-automatic ground environment (SAGE) for coordinating air defences, additional heavy and gap-filler radar, and a limited number of fighter-interceptors at a reasonable cost.

By the mid-fifties, the international strategic realities for Canada were thus changing with the decline of the Soviet bomber threat, the appearance of intercontinental ballistic missiles (ICBMs) that could carry nuclear weapons, and the development of a continental defence

⁵⁴ Richter, *Avoiding Armageddon*, 69.

⁵⁵ Trudgen, "A Canadian Approach," 10.

strategy - the concrete expression of which would be the establishment of the North American Air Defence Command (NORAD). These new strategic realities raised questions about the utility of manned interceptors as a viable defence against aggression. But strategy alone did not dictate the decisions reached by the Diefenbaker government on the Arrow program. There were a number of intervening domestic variables that influenced the perspective of the Prime Minister and Cabinet, including the state of Canada's public finances, pressure by officials at Avro Aircraft and from the public to build an independent Canadian defence industry, and the influence of Canada's military leadership who were at odds over the allocation of the defence budget. All of these forces combined to influence the government as it attempted to respond to changes in the international security environment.

CHAPTER TWO

Neoclassical realism places a focus on how intervening domestic factors influence the decisions made by a country's foreign policy decision-makers. While systemic forces drive a state's external behaviour and encourage the state to act as a unitary actor, internal political structures of the state frequently influence decision outcomes.⁵⁶ Tudor Onea describes how systemic forces are perceived and responded to by a state's elite decision makers: "At times, states will be unable to pay heed to structural requirements, either because the signals sent by the system are garbled by misperceptions, or because domestic politics impede the state's ability to mount a timely or an appropriate response."⁵⁷ Neoclassical realism shows, in the case of the Arrow, how a government's response to the strategic environment of the moment can be influenced by two categories of intervening domestic variables: the degree of elite consensus regarding the state's strategic imperatives and its policy/program priorities; and constraints placed on elite decision-makers by pressures expressed through public opinion, the media, and special interests.⁵⁸

The first domestic variable is the degree of agreement or cohesion between executive-level elites over the state's strategic and policy/program priorities.⁵⁹ From June 1957 when the

⁵⁶ Brian Rathburn, "A rose by any other name: neoclassical realism as the logical and necessary extension of structural realism," *Security Studies* 17 (2008): 314; "Kim Richard Nossal, Stephane Roussel, and Stephane Paquin, *International Policy and Politics in Canada* (Toronto: Pearson Canada Inc., 2011), 10.

⁵⁷ Tudor Onea, "Putting the 'Classical' in Neoclassical Realism: Neoclassical Realist Theories and US Expansion in the Post-Cold War," *International Relations* 26, no. 2 (2012): 143.

⁵⁸ Justin Massie, "Canada's war for prestige in Afghanistan: A realist paradox?" *International Journal* 68, no. 2 (2013): 278, 281.

⁵⁹ Lobell, Ripsman, and Taliaferro, "Introduction," 28.

Diefenbaker government assumed office, to September 1958 when the government made its first of two major decisions on the Arrow, there were divisions between Canada's military elites over the nature of the changes that were taking place in the international strategic environment, and different perspectives on their impact on Canada's defence priorities.

The signing of the Ogdensburg Agreement and the Hyde Park Declaration in the early 1940s set the stage for the establishment of a Canada-US continental defence regime in the 1950s that culminated in the signing of the North American Air Defence Command (NORAD) in 1957. The defence strategy underlying NORAD was to build up North American air defences in preparation for a Soviet bomber attack. However, by the mid-1950s the international strategic environment had begun to change as a result of the new threat posed by Soviet intercontinental ballistic missiles armed with nuclear weapons. As a result, the Western democracies began to turn away from traditional notions of defence and embraced a strategy of deterrence. In Canada, there were disagreements between members of the military elite over the impact of the new strategic environment on Canada's air defence plans, and in particular whether the CF-105 Arrow interceptor was, in the new environment, still the best means of defending Canada and North America. The Chiefs of Staff Committee (CSC) was divided, with the Committee Chairman, Charles Foulkes, the Chief of the General Staff, Howard Graham and the Chief of the Navy Staff, Harry DeWolf arguing that the Arrow would soon be obsolete, while the new strategic realities called for a reduced emphasis on air defence and greater attention to missile research. They were opposed by the Chief of the Air Staff (CAS), Air Marshal Hugh Campbell and Chairman of the Defence Research Board, A.H. Zimmerman, who believed that the air defence of North America should be the first national security priority, in which the Arrow

could play a key supporting role. These differences caused delays by the CSC in providing clear advice to the Cabinet on the future of the Arrow program for most of 1958.

The Cabinet was no better disposed to deciding what Canada's defense strategy should be, in light of the broad policy/program priorities of the new government. As early as 27 January 1958, the new Defence Minister George Pearkes wrote to Diefenbaker asserting that there was a need to reassess the nature of the threat posed by the Soviet Union, and that it was not at all clear that it would be necessary to proceed with the CF-105 fighter-interceptor program.⁶⁰ But such a statement prompted neither a Cabinet decision, nor even Cabinet deliberations, on the matter. The Cabinet was preoccupied with a national election held in the spring of 1958, and equally with implementing the policies and programs to which it had committed itself when it took office in 1957. And the Defence Minister, it turned out, remained uncertain for most of 1958 about whether the international strategic environment had actually changed. It would be August 1958 before he recommended to the Cabinet that the Arrow program could not be justified from a strategic perspective, and another month before the Cabinet recognized that the federal budget could not accommodate the new fighter program together with other required equipment for national defence and the new social security programs which it believed Canadians had elected it to implement.

But it was not only differences between military and political elites that complicated the government's response to the changing international strategic environment. There were also pressures coming from domestic actors such as the media, corporate and other special interests, and the general public—the second category of intervening domestic variables—that influenced

⁶⁰ Smith, *Rogue Tory*, 309.

the government's approach to its defence priorities and, in particular, its position on the Arrow program.

Some of these domestic variables actually helped move the Cabinet towards a position on defence policy priorities that the new strategic imperatives seemed to be requiring—that is, a reduced focus on anti-bomber defences. More specifically, Canada's public finances were in a troubled state as a result of a recession that hit Canadians by 1957, leading the Diefenbaker Conservatives to make a commitment during the election campaign to cut back defence spending, which was consuming nearly 40 percent of the national budget. And secondly, the Conservatives were on record as having promised to enact a number of new social security initiatives, in areas such as unemployment, hospitalization, industrial price supports, and housing loans. These commitments did not augur well for the continuation of a fighter program whose costs were escalating.

But there were other domestic variables working in the opposite direction, constraining the government from adopting defence plans and policies apparently dictated by the new strategic environment—variables that supported the continuation of the Arrow program. The public's fascination with the new fighter aircraft grew substantially with the roll-out of the first Arrow prototype at A.V. Roe on 25 March 1957, while defence experts and defence commentators continued to report enthusiastically on the progress with the development of an aircraft that promised to be on the leading edge of fighter technology. The main themes in these reports were: the thousands of jobs that were being created at Avro Aircraft, Orenda Engines, and a multitude of subcontracting firms; the huge impact that the Arrow program was having on the building of the jet aircraft and related technology sectors in Canada; and the hope that

Canada, through providing for its own air defence, would achieve self-sufficiency and independence in its foreign policy.

Yet another intervening domestic variable was growing pressure on government officials from what amounted to be a vigorous pro-Arrow lobby, including senior RCAF officials, retired Air Force officers, labour unions representing aircraft workers, and senior A.V. Roe officials, including company President Crawford Gordon. As 1958 went along, these groups were increasingly vocal in their efforts to force the government into continuing the fighter program.

Finally, and not least, a domestic influence that made the Diefenbaker government hesitate to cancel the Arrow program was its worry about contributing to the worsening of the already bleak unemployment situation in the country. Unemployment was a critical issue especially for the Prime Minister, who always insisted that governments must develop and enact policies and programs that could command the public's support. His compromise proposal to Cabinet on 21 September 1958, which allowed the Arrow development program to continue until the following March, was attributable, in large part, to his concern lest cancellation of the entire program be a "shock to the employment situation": if cancellation was deferred until the following March the economy "might be better able to stand the shock".⁶¹

A Shifting Strategic Environment

By the mid-1950s technological changes had spawned a growing belief among political leaders in the Western democracies that manned fighters were diminishing in strategic

⁶¹ LAC, PCO, Cabinet Conclusions, 21 September 1958.

importance.⁶² As ICBMs began to replace long-range bombers as the Soviet delivery system for nuclear warheads, doubts were expressed about the cost-effectiveness of the Western anti-bomber defence system.⁶³ During this time, the US shelved plans for a number of new interceptors, and in April 1957, British Defence Minister Duncan Sandys published an influential White Paper that discussed the growing obsolescence of manned interceptors, and predicted the eventual replacement of bombers with guided missiles.⁶⁴ Many of the military and strategic experts in the West were convinced that the Soviet Union was moving toward missile technology and away from long-range bombers.⁶⁵ This shift in strategic thinking raised questions among elite decision-makers in Canada about whether the priority in Canadian defence planning should be the development of the costly new fighter-interceptor known as the CF-105 Arrow. CSC Chairman Charles Foulkes had told his fellow Chiefs in February, 1957 that he was “concerned with the growing magnitude of expense [on air defence],” and wanted to “commence a long-range study to determine how much more should be invested in the air

⁶² Brad W. Gladman, and Peter M. Archambault, “Advancing the Canada-US Alliance: The Use of History in Decision-Support,” *Journal of Military and Strategic Studies* 14, no. 3 & 4 (2012): 13.

⁶³ Philippe Lagasse, “Canada, Strategic Defence and Strategic Stability: A Retrospective and Look Ahead,” *International Journal* 63, no. 4 (2008): 922.

⁶⁴ In 1957 the new UK Prime Minister, Harold Macmillan, appointed Duncan Sandys as Minister of Defence with the task of reducing defence expenditures. See Jon Agar and Brian Balmer, “British Scientists and the Cold War: The Defence Research Policy Committee and Information Networks, 1947-1963,” *Historical Studies in the Physical and Biological Sciences* 28, no. 2 (1998): 240; Simon J. Ball, “Harold Macmillan and the Politics of Defence: The Market for Strategic Ideas during the Sandys Era Revisited,” *Twentieth Century British History* 6, no. 1 (1995): 81,84; Isinger and Story, “The Plane Truth,” 49-50.

⁶⁵ Melvin Conant, “Canada and Continental Defence: An American View,” *International Journal* 15 (1960): 223, 225.

defence system.”⁶⁶ From the outset of the fighter program, the St. Laurent government had made it clear to A.V. Roe, which was developing the aircraft, that the program was subject to review at any time. The Cabinet now contemplated cancelling the program, but at a February 1957 meeting put off a final decision until after the June 1957 election.

However, that decision was interrupted by one of the biggest upsets in Canadian electoral history, with the Progressive Conservatives forming a minority government under Prime Minister John Diefenbaker.⁶⁷ Most of the new Ministers had little experience in government, let alone in dealing with questions of military strategy and defence technology. They were faced, as Charles Foulkes would later say, with “two of the most awkward...problems any minister had ever faced”: whether to accept a proposal that had been put forward by US and Canadian military officials for an integrated North American Air Defence Command; and what to do about the troubled CF-105 Arrow program.⁶⁸

Air Marshal Roy Slemon, Chief of the Air Staff, had long argued that air defences, and in particular, those entailing increasingly sophisticated fighter-interceptors, were of preeminent importance in providing insurance in the case of a Soviet bomber attack. In a *Globe and Mail* article on 23 July 1957 Slemon reiterated his belief in the need for a fighter-interceptor like the Arrow as part of the North American air defence network: “...Eventually Canada can expect to be a potential target for guided missiles – but in the foreseeable future defence will rest primarily on manned interceptors such as the CF-105.”⁶⁹ According to Slemon, the Soviets were

⁶⁶ LAC, DEA Records, RG 25, Vol. 4579, File 50045-A-40 Part 4, Minutes of the 604th Meeting of the Chiefs of Staff Committee, 1 February 1957.

⁶⁷ McLin, *Canada's Changing Defense Policy*, 40-42.

⁶⁸ Charles Foulkes, quoted in McLin, *Canada's Changing Defense Policy*, 43.

⁶⁹ "Canada's 'Iroquois' Hailed," *Globe and Mail*, 23 July 1957.

still building bombers and it was imperative to have a leading-edge fighter like the Arrow to defend Canadian territory; inferior US fighters such as the F-106 Delta Dart, the US Air Force's fighter of choice, flying north from US bases, did not have the range of the Arrow or its air-to-air missile or tracking capability.⁷⁰

Slemon's premise was the Soviet threat would come from long-range bombers, against which a sophisticated fighter-interceptor like the Arrow could provide the most effective defence. However, the arrival of *Sputnik* in October 1957 confirmed that the Soviets had likely developed a nuclear-armed ICBM, against which there was no effective defence. *Sputnik* brought home the reality that Western defence strategy was obsolete.⁷¹ If the Soviets were able to put a satellite into orbit, they also had the capability of attacking the West from outer space using inter-continental ballistic missiles carrying a thermonuclear bomb.⁷² Leading US military strategist Herman Kahn concluded that "except for those representing vested official interests or occasionally military service interests, the government experts had more or less given up on the notion of surviving wars and were beginning to put all their bets on deterrence."⁷³

⁷⁰ "A Mile Not Room to Dodge: CF-105 to Fly 1,600 mph this Year," *Globe and Mail*, 14 February 1957.

⁷¹ Sarty, "The Interplay of Defence and Foreign Policy," 133.

⁷² Robert Bothwell, *Alliance and Illusion: Canada and the World, 1945-1984* (Vancouver: UBC Press, 2007), 163.

⁷³ Quoted in 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), 88.

The Initial Decision on the Arrow

In rendering in its first decision on the Arrow in the fall of 1957, the Diefenbaker Cabinet revealed its hesitation about continuing the program. The new Minister of National Defence, George Pearkes, told the House of Commons that the government, “upon the advice of the chiefs of staff, [had] decided now to continue the development of the CF-105... for a further period of one year, at which time the program [would] again be reviewed.”⁷⁴ Pearkes himself appeared to support the program: “in the foreseeable future,” he told the House, “if any threat from the air develops against this country the manned bomber will be at least an important part of that threat, and therefore we must have a manned interceptor capable of firing air missiles which will have a homing ability, enabling them to direct themselves on the target. We believe that to be essential.”⁷⁵ In Pearkes’s opinion, there was a partnership role for Canada to play with the US in providing fighter defences in North America. In another statement to the House in December 1957, he said: Canada’s “particular role in this partnership for the defence of the North American continent is to provide a proportion of the manned interceptors to meet the manned bombers and the best judgment that I have, founded on the judgment given by our own military advisers and military advisers from our NATO partners, is that for many years to come there will be manned bombers.”⁷⁶ It would soon become clear that Pearkes’s views differed from those of senior officials in the US Department of Defence, who were increasingly of the opinion that the growing threat to North American security was from ICBMs.⁷⁷

⁷⁴ Canada, House of Commons, *Debates*, 29 October 1957, 511.

⁷⁵ *Debates*, 7 November 1957, 851.

⁷⁶ *Debates*, 5 December 1957, 1929.

⁷⁷ Conant, “Canada and Continental Defence,” 223, 225.

Not long after his appointment as the new government's Minister of Finance, Donald Fleming discovered that the Treasury was in much worse condition than the previous government had indicated. Although the Conservatives were now projecting a surplus of \$106 million⁷⁸, many of those funds were already committed to programs introduced by the previous government. By late September 1957 the CDC reviewed Canada's defence commitments with a view to determining those which could be cut back so that essential priorities could be met without increasing the budget.⁷⁹ When presenting his first budget to the House of Commons on 17 June 1958 the Finance Minister revealed, for the first time publicly, the financial constraints faced by the government. He noted that during the 1956-57 budget year \$1,784 million or 37 percent of total government expenditures had been spent on defence.⁸⁰ It was two months after this that the Diefenbaker government would announce that this level of defence spending could not be sustained given the government's new social security spending priorities in a variety of new areas such as unemployment insurance, pensions and hospitalization.⁸¹

⁷⁸ *Debates*, 6 December 1957, 2002-6; "Text of Finance Minister's Tax Statement," *Globe and Mail*, 7 December 1957.

⁷⁹ Donald Fleming, *So Very Near: The Political Memoirs of the Honourable Donald M. Fleming, Volume One: The Rising Years* (Toronto: McClelland and Stewart, 1985), 414.

⁸⁰ Canada, Ottawa, Ministry of Finance, Budget Speech Delivered by the Honourable Donald M. Fleming, Minister of Finance, June 17, 1958 Edmond Cloutier CMG OA DSP Queen's Printer and Controller of Stationery Ottawa, 1958 (Canada Department of Finance Budget Speech), 89.

⁸¹ Trevor Lloyd, *Canada in World Affairs 1957-1959* (Toronto: Oxford University Press, 1968), 7; J.L. Granatstein, *Canada's Army: Waging War and Keeping the Peace* (Toronto: University of Toronto Press, 2004), 349.

Elite Decision-Making: the Chiefs of Staff

Neoclassical realism proposes that a government's response to the strategic imperatives posed by the international system can be significantly influenced by differences in the perceptions or beliefs of the elites advising the government. For nearly a year, beginning in the fall of 1957 when the Chiefs of Staff began their budget preparations for 1958-59, they were at odds over Canada's air defence requirements in the missile age, and in particular over whether the Arrow fighter-interceptor should be the weapon system of choice for Canada in the new strategic environment. Chief of the General Staff, Howard Graham later wrote of the inter-service disagreements over the Arrow:

Air Marshal Slemon, Air Force Chief from 1953 to 1957, and Air Marshal Campbell, who succeeded Slemon in 1957, as one might expect, continued to support the program even at prohibitive costs that consumed the greater part of any reasonable defence budget. The Navy and Army, through their chiefs – Admiral Mainguy (followed by DeWolf) and Lieutenant-General Guy Simonds (followed by Graham)– and the Chairman of the Chiefs of Staff Committee, General Foulkes, argued against it.⁸²

The disagreement between the Chiefs of Staff was essentially over whether there was a role in the North American air defence for manned interceptors, and over how Canada could best contribute to that defence, given budgetary constraints. At a Special Meeting of the CSC on 3 April 1958, C. Roy Slemon's successor as the CAS, Air Marshal Hugh Campbell argued forcefully that Canada had a responsibility to contribute to continental air defence: "during the 1960-67 period the Air Defence Weapons System against the manned bomber should be composed of manned fighters and long-range surface-to-air missiles such as Bomarc; the manned

⁸² Howard Graham, *Citizen and Soldier: The Memoirs of Lieutenant-General Howard Graham* (Toronto: McClelland and Stewart, 1987), 237, quoted in Isinger and Story, "The Plane Truth," 50.

fighters providing flexibility and sustained defence while the missiles provided the high attrition against enemy aircraft.”⁸³ However, the other Chiefs of Staff disagreed.⁸⁴ The meeting was called to examine a proposal to fund a major expansion the Canadian air defence system—to include an increase in the number of PINETREE radar, the adoption of the surface-to-air BOMARC missile, and a sophisticated semi-automatic ground environment infrastructure, SAGE, for coordinating the entire air defence network.

By the end of June, the Chiefs of Staff were warned by the government to prioritize the most “essential items”⁸⁵ for their respective services in order to proceed with forthcoming discussions with the Defence Minister on budgetary priorities. Foulkes told the CSC that “the probability of the military budget exceeding expenditures of past years made it mandatory that the various Service programs be measured against a realistic standard of the absolute minimum outlay required to meet commitments of first priority only.”⁸⁶ He reiterated this point on 8 July during an early discussion of program requirements for the fiscal year 1959/60; in his view, “the current programme was going beyond previous estimates and that if anything new was to be introduced into the programme it would be necessary for cuts to be made in the presently approved programme.”⁸⁷ Even though Foulkes anticipated a decrease in the amount Canada

⁸³ Directorate of History and Heritage (DHH), Records of the Department of National Defence (DND), Raymont Collection, 73/1223 DHist, Files of the Chairman, Chiefs of Staff Committee, Minutes of the Special Meeting of the Chiefs of Staff Committee, 3 April 1958.

⁸⁴ Ibid.

⁸⁵ DHH, DND Records, Minutes of the Special Meeting of the Chiefs of Staff Committee, 25-27 June 1958.

⁸⁶ Ibid.

⁸⁷ DHH, DND Records, Minutes of the Special Meeting of the Chiefs of Staff Committee, 8 July 1958.

would be required to contribute to NATO commitments, he was still firm on prioritizing the most essential requirements among each of the respective services.⁸⁸

On 14 July the CSC met to discuss five alternative plans for air defence that the Chiefs of Staff had put together, along with advantages and disadvantages of each. Foulkes told the other Chiefs that “the Department of National Defence was concerned with the large amount of money being spent on defence against the manned bomber, compared to the small amount being spent on defence against the ICBM.”⁸⁹ In his view, the expenditures on anti-bomber air defences were not sustainable. It was not possible to proceed with the Arrow program, “even if everyone agreed that it was the right programme, because there were not enough funds even in a budget of \$2 billion.”⁹⁰ The Arrow program was too expensive and diverted funds that were necessary for new equipment for the army and navy, for re-equipping Canada’s European Air Division, and for changes immediately required for BOMARC, SAGE, and extensions to the PINETREE radar network.

Of the five defence plans, four recommended continuing the development and production of the CF-105 aircraft. The fifth plan presented but ultimately rejected the option of cancelling the program, recognizing that it would be politically problematic to try “to explain away the 400

⁸⁸ DHH, DND Records, Minutes of the Special Meeting of the Chiefs of Staff Committee, 25-27 June 1958. On 09 December 1958, Pearkes proposed a decrease from \$130 million to \$90 million for the NATO mutual aid program in 1959-60, a reduction of approximately \$40 million. However, this was due mainly to the unavailability of Second World War era equipment, and a reevaluation of how Canada could best contribute both to NATO as well as Canadian industry. See LAC, PCO, Cabinet Conclusions, 09 December 1958.

⁸⁹ DHH, DND Records, Minutes of the Special Meeting of the Chiefs of Staff Committee, 14 July 1958.

⁹⁰ Ibid.

million dollars and cancellation charges on the CF105 project.”⁹¹ Deputy Minister of Defence, F.R. Miller concluded that there was still insufficient information to make a decision on the program.⁹²

The discussion continued between the Chiefs of Staff the next day, with Foulkes distributing a rewrite of the five alternative plans for air defence. Campbell defended the Arrow program, and argued that without an interceptor force “we cannot be a partner in NORAD in that we cannot carry out our share of the defence load – we would in effect be out of the interceptor business... we would have to depend on the United States to exercise our radar defences.”⁹³ He called for the installation of two BOMARC missile sites in Canada and completion of the CF-105 program so that “...the enemy [would be] compelled to meet a variety of weapons systems and his problem...made more difficult.”⁹⁴ The other Chiefs disagreed: continuing the Arrow would be extremely costly, and would mean that no funds would be available for research that was developing around new offensive and defensive missile technology. Foulkes added that “since the Chiefs had agreed to develop the CF105, great strides had been made in developing BOMARC, especially regarding range and accuracy”, which would “...result in the manned fighter becoming more and more of a ‘luxury’ item in the defence system.”⁹⁵ The Chief of the Naval Staff was also critical of the Arrow: “he was not convinced that even if the budget were \$2 billion, we should spend a large part of it on an aircraft that would not be in service for 5

⁹¹ DHH, DND Records, Minutes of the Special Meeting of the Chiefs of Staff Committee, 14 July 1958.

⁹² Ibid.

⁹³ DHH, DND Records, Minutes of the Special Meeting of the Chiefs of Staff Committee, 15 July 1958.

⁹⁴ Ibid.

⁹⁵ DHH, DND Records, Minutes of the Special Meeting of the Chiefs of Staff Committee, 15 July 1958.

years.”⁹⁶ These discussions reflected both marked disagreement between the Chiefs in determining the threats and opportunities presented by the strategic international environment, as well as the urgency they felt in trying to reach a decision on the Arrow. Although the alternative plans for air defence had been rewritten, the Chiefs were still unable to select one single plan that they considered to be the best option. Instead, they agreed to present multiple options to the Minister.⁹⁷

The CSC discussed the alternative proposals with the Defence Minister on 18 July. Although cancellation remained one of the options, the Minister agreed that it would be politically unacceptable. The Plan that had the most support called for the completion of the Arrow’s development (without ASTRA and SPARROW, the expensive electronics/missile package proposed for the aircraft) and a production of 60 (down from the 169 that had up to that point been planned) aircraft, the installation of two BOMARC sites, extension of the PINETREE network, and the installation of SAGE. However, it was agreed that such a plan was not feasible with a defence budget of less than \$2 billion. The final decision on the Arrow’s future would have to await a meeting of the CDC in mid-August.

Discussions between the military elites over the Arrow program during this time included a 24 July Special meeting between the Chiefs of Staff and officials from the Defence Research Board (DRB). Straying for the first time in their support of the Chief of the Air Staff and the RCAF, DRB officials now argued that the introduction of BOMARC into Canada meant that

⁹⁶ Ibid.

⁹⁷ Ibid.

only “a few” fighter-interceptors in the Ontario-Quebec sector would be required.⁹⁸ According to the Acting Chairman of the DRB, Dr. Keyston, “approximately 40 interceptors would be the maximum that could be efficiently utilized in combination with Bomarc in the Ontario-Quebec sector, based on the increased range of Bomarc and the limit on the rate at which Bomarcs could be fed into the control system... if all the available Bomarcs were to be used there would be little air space left in which to deploy interceptors.”⁹⁹ Throughout the meeting, Campbell found himself on the defensive, and he was called upon by Foulkes to respond to Keyston. He replied that he was simply not prepared to accept the DRB’s position.¹⁰⁰ The CAS was now alone among the Chiefs of Staff in defending the Arrow; he insisted that an absolute minimum of 60 front-line force aircraft would required in order to have an operational force.¹⁰¹

On 8 August the Chiefs of Staff drafted a memorandum for the CDC containing their recommendations on the Arrow program. After careful consideration, the Chiefs had concluded that any defensible plan involving production of the CF-105 would require an annual expenditure of \$350 million in the next three years. They had “doubts as to whether a limited number of aircraft at this extremely high cost would provide defence returns commensurate with the expenditure in view of the changing threat.” To meet any proper requirement for interceptor aircraft, they stated, “it would be more economical to procure a suitable number of proven aircraft which [had] been developed.” The recommendation followed that authority be granted

⁹⁸ DHH, DND Records, Minutes of the Special Meeting of the Chiefs of Staff Committee, 24 July 1958.

⁹⁹ Ibid.

¹⁰⁰ Ibid.

¹⁰¹ DHH, DND Records, Minutes of the Special Meeting of the Chiefs of Staff Committee, 15 July 1958.

for the cancellation of the CF-105 Arrow and associated fire control and weapons systems projects.¹⁰²

Foulkes was aware of the possible negative domestic political fallout of such a decision; however, after months of CSC meetings he had come to the conclusion that the disadvantages of continuing the CF-105 program far outweighed the advantages. In a lengthy aide memoire prepared on 25 August for the Minister he cited three considerations that had led him to such a conclusion: the declining need for interceptors as a result of the Soviet shift to ICBMs; rapid changes in technology that rendered surface-to-air missiles more efficient and cost effective than fighter-interceptors; and the exorbitant cost of completing the Arrow program with no guarantees that the estimated costs would not increase.¹⁰³

Analysis of the Military Elite

An examination of the role of the Chiefs of Staff in the decision-making on the Arrow reveals that their continuing failure to resolve their differences on Canada's defence priorities and on the defence budget stalled until August 1958 all possibilities of the Diefenbaker Cabinet giving full consideration to the question. It was only after it became clear that the amount of defence that would be provided by an agreed upon budgeted amount for the Arrow program did not justify the program's cost that the Chiefs of Staff were able to recommend that the Arrow program be discontinued. In other words, it was the finances around the Arrow program that

¹⁰² DHH, DND Records, Files of the Chairman, Chiefs of Staff Committee, Series 1, File 11, Memorandum to Cabinet Defence Committee, "Air Defence Requirements," 8 August 1958.

¹⁰³ DHH, DND Records, Files of the Chairman, Chiefs of Staff Committee, Series 1, File 11, Aide Memoire for the Minister, "Advantages and Disadvantages of Continuing Production of the CF105," 25 August, 1958.

brought the military elites back to a position that was aligned with the realities of the strategic environment. This is a strategic scenario that neoclassical realism framework does not appear to anticipate—where differences between elites over priorities or perceptions, far from preventing a government from embracing the strategic realities of the international environment, actually encourages it to do so.

Elite Decision-Making: the Cabinet and the CDC

The CSC, however, was not the only the only elite group that had difficulty reaching a consensus on the Arrow program—as became evident at meetings of the Cabinet and the CDC during the spring and summer of 1958. Ministers expressed differing views about the nature of the threat posed by the Soviet Union, and about how, in terms of a defence system, to counter it. Some Ministers believed that while “...the U.S.S.R. was ahead of the Western world in the development of the ICBM”,¹⁰⁴ the threat from bombers, and thus the need for anti-bomber defences, would continue to exist for the next several years.¹⁰⁵ Others believed that the Arrow program should be discontinued given the changed strategic environment and budgetary realities. “Commitments accepted in 1951,” declared one of the Ministers, “when aircraft cost \$400,000 each, could not be honoured now when aircraft alone cost ten times as much. We could not re-arm and re-equip all our forces now and still live up to those commitments.”¹⁰⁶

Parkes broke the logjam at a meeting of the CDC on 15 August. He argued that a recent reassessment of the threat to North America showed that while manned bomber aircraft [would]

¹⁰⁴ LAC, PCO Records, Cabinet Defence Committee Conclusions, 26 May 1958.

¹⁰⁵ LAC, PCO Records, Cabinet Defence Committee Conclusions, 26 May 1958; 28 July 1958.

¹⁰⁶ LAC, PCO Records, Cabinet Defence Committee Conclusions, 28 July 1958.

continue to pose a threat during the 1960-65 period, “ICBMs [would] progressively replace them as the primary threat.”¹⁰⁷ The Soviet Union had been developing ICBMs at a rapid pace over the past year and there had been a sharp decrease in the production of manned bombers.¹⁰⁸ Pearkes drew attention to the finding of the Department of External Affairs that “there might be more likelihood of a continuation of the cold war and of the outbreak of local incidents along the fringes of the free world than of the launching of a definite attack on North America by the Soviet Union.”¹⁰⁹ At length, he recommended that “authority be granted for the cancellation of the CF105 Arrow programme and associated fire control and weapons systems projects.”¹¹⁰

It did not take long for word of Pearkes’ recommendation to spread. The morning of the same day, Douglas LePan in the Department of External Affairs took a phone call from Foulkes, the message of which he relayed to his Undersecretary: “...Mr. Pearkes had just decided to recommend to Cabinet against continuance of the CF-105 programme.”¹¹¹

According to LePan, Pearkes’ recommendation had been given:

... as a result of his visit to Washington, where he had apparently been impressed by the disparity between the unit cost of the CF-105 and of comparable interceptors that might be available before long for purchase in the United States. Apparently also, the United States authorities had expressed some doubt as to whether or not so many squadrons of interceptors would be required in the northern half of North America as the Department of National Defence had been assuming.¹¹²

¹⁰⁷ LAC, PCO Records, Cabinet Defence Committee Conclusions, 15 August 1958.

¹⁰⁸ Ibid. While Pearkes did not say so, Canadian intelligence officials had, as early as January 1958, differed from their US counterparts on the nature of the Soviet threat, arguing that there would be no further expansion of the Soviet long-range air force after 1960. See DHH, DND Records, Minutes of the 615th Meeting of the Chiefs of Staff Committee, 8 January 1958.

¹⁰⁹ LAC, PCO Records, Cabinet Defence Committee Conclusions, 15 August 1958.

¹¹⁰ Ibid.

¹¹¹ LAC, DEA Records, Vol. 5976, File 50245-40 Pt. 2.2. Memorandum for the Undersecretary of State for External Affairs from Douglas LePan, 8 August 1958.

¹¹² LAC, DEA Records, Vol. 4584 File 50046-40 Pt. 7. Memorandum for the Under-Secretary of State for External Affairs from Douglas LePan, 13 August 1958.

Pearkes had tried to convince the Americans to purchase the Arrow but, as had been the case with earlier requests, he was turned down: the US Secretary of Defence, Neil McElroy, made it clear that the US was unwilling to provide any funding for the program through purchasing any Arrows for the US Air Force. However, he had told Pearkes that he would sell US-produced interceptors to Canada at a reduced cost, and provide US air support in the event of an emergency over Canadian airspace.¹¹³ The conversation with McElroy was a decisive factor in changing Pearkes' mind on the Arrow: according to James Dow it was "the key that opened the door to cancellation."¹¹⁴ In a later interview with J.L Granatstein, Pearkes recalled:

The Americans at that time had a lot of fighters which were not quite as good although they claimed they were as good as the Arrow and those were available for action against any attackers – they would have come over Canada – for a defence against bombers. So really, it wasn't necessary to have such a very expensive item [as the Arrow].¹¹⁵

Evidently Pearkes still believed that fighter-interceptors were an important requirement in North American air defence, but he thought that there needed to be sufficient room in its defence budget for army and naval defence programs, NATO air defence commitments, anti-missile defence research, and expansion of the North American air defence infrastructure. This would not be possible if the Arrow program were continued.

The Opposition Weighs In

The same day that Foulkes was informed of Pearkes' decision that the Arrow program should be cancelled, there was a discussion of the program and Canada's defence priorities in the

¹¹³ Dow, *The Arrow*, 122.

¹¹⁴ Ibid.

¹¹⁵ George Randolph Pearkes: My political recollections (Canadian Military Oral History Collection, University of Victoria Digital Collections) Interviewer: Granatstein, J.L, 7 April 1970, 28-29, <http://contentdm.library.uvic.ca/cdm/ref/collection/collection13/id/1443> .

House of Commons. The Leader of the Opposition, Lester B. Pearson possessed some understanding of the complexity of the issues that were being examined in meetings of the CDC and the CSC, based upon his own experience with the program during the St. Laurent years. In his Commons speech, he asked:

"What do we do now? By "we" I mean parliament, which will have to provide the money. Do we continue the development and production of this particular manned interceptor [the Arrow] at this cost? We will have spent by the end of this year about \$400 million on the development and planning of this aircraft, and we will have about 37 to show for it. A decision now has to be taken as to whether or not go ahead to the point where these planes will be introduced into our squadrons along, perhaps later, with the Bomarc missile; or do we abandon this project in the light of developments in the last two years which seem to be emphasizing the importance of other forms of air defence, which may not replace but will certainly have to supplement the CF-105? Do we try to do both?"¹¹⁶

Pearkes declined to provide a direct answer, but offered a frank admission of the difficulty that the government was having reaching a decision on the Arrow and related defence questions:

"The Leader of the Opposition referred to the dilemma which exists. He pointed out the problems which have to be solved. I am not in a position today to put forward a solution to these problems. I am not quite certain on what horn of the dilemma I must rest. We have to collect more information before we make a decision which will affect the security of the country and mean the expenditure of hundreds of millions of dollars over many years. As I stated in the committee, before the end of the year a decision will have to be reached in respect to many of these very difficult problems. They are with me every day and pretty nearly 24 hours of every day. Solutions will be reached and will be presented to parliament in due course."¹¹⁷

Elite Decision-Making: The Cabinet and Cabinet Defence Committee

While Pearkes believed that the Arrow program should be cancelled, Diefenbaker insisted that the program undergo a comprehensive review before any decisions were made. No

¹¹⁶ *Debates*, 8 August 1958, 3229.

¹¹⁷ *Ibid.*, 3236.

decision, he told the CDC, should “be taken without full knowledge of the history of the programme.”¹¹⁸ It would not have been unreasonable for the Cabinet to have cancelled the Arrow program at this time, if only on the basis of the CSC’s recommendation. Indeed Finance Minister Donald Fleming reminded the Cabinet that the proposed weapons systems were continuing to “rise in cost beyond the financial capacity of Canada to pay its own way.”¹¹⁹ He welcomed “most warmly”, from the financial point of view, Pearkes’s suggestion that the Arrow programme and associated projects be cancelled “due to the intolerable...strain which continuance of that programme would have placed on the national budget.”¹²⁰

But some Ministers, including the Prime Minister, had reservations about making a decision that could hurt the Canadian aircraft industry and worsen the already troubling unemployment situation in the country: more than 15,000 employees at Avro Aircraft and Orenda Engines, which were developing the CF-105’s airframe and engine, would lose their jobs, followed by thousands who were employed at sub-contracting firms.¹²¹ At a 21 August CDC meeting, there was more discussion about the future of the Arrow, centring on the domestic effects of cancellation. It was pointed out that since Avro Aircraft Limited and Orenda Engines Limited had no other government contracts, both companies would probably cease to operate if the program were cut, and cancellation would affect the employment of about 25,000 persons.¹²²

¹¹⁸ LAC, PCO Records, Cabinet Defence Committee Conclusions, 15 August 1958.

¹¹⁹ DHH, DND Records, Files of the Chairman, Chiefs of Staff Committee, Series 1, File 10, Air Defence Requirements, Memorandum to Cabinet Defence Committee, “Some Considerations Relating to the Defence Programme”, 13 August 1958.

¹²⁰ Ibid.

¹²¹ In January 1958 the unemployment rate was expected to reach 10 percent, a figure roughly 35 percent higher than the previous unemployment peak of 7.4 percent in March 1955. See LAC, PCO, Cabinet Conclusions, 07 January 1958.

¹²² LAC, PCO Records, Cabinet Defence Committee Conclusions, 21 August 1958.

The furthest that the CDC was prepared to go at this time was to recommend that Cabinet consider cancellation of the Arrow program as a possibility—while granting the Chiefs of Staff the authority to proceed with the negotiations with the US regarding cost-sharing of BOMARC bases and the expansion of PINETREE, and the possibility of procuring an already developed interceptor to replace the Arrow.¹²³ Including the Arrow in cost-sharing negotiations with the US was not considered, and the US authorities had already made it “quite clear” that they did not intend to buy any CF-105s.¹²⁴

The minutes of a Cabinet Meeting held on 7 September show that “although ministers were relatively well agreed on the purely defence aspects, the serious problem still requiring consideration was the possible effects of cancellation on employment and the general economic situation.”¹²⁵ The Prime Minister was concerned lest the government be blamed for making decisions that exacerbated the growth of unemployment in the country. Finance Minister Fleming stated that back in October 1957 he had supported the continuation of the program for one year; but “the military view was that the programme should be cancelled. In these circumstances, he did not see how the government could decide not to discontinue it.”¹²⁶ For Fleming the \$400 million per year for four years that would be required if the Arrow were to continue could be better spent elsewhere; “cancelling the programme would be of much greater help to the economy as a whole than continuing it.”¹²⁷ But not everyone agreed: the progressive-minded Ministers including Diefenbaker, Defence Production Minister Raymond O’Hurley and

¹²³ Ibid.

¹²⁴ LAC, PCO, Cabinet Conclusions, 28 August 1958.

¹²⁵ LAC, PCO, Cabinet Conclusions, 7 September 1958.

¹²⁶ Ibid.

¹²⁷ Ibid.

Labour Minister Michael Starr thought that cancellation of the program with its attendant layoffs could have a serious psychological impact on Canadians, contributing to a recession in the winter from which it would be even more difficult to recover.¹²⁸ Spending some money on the program during the winter would mean putting the decision off until the economy was better. This would cost less than a decision that could cause or contribute to a real depression, and it might help the public to be more optimistic about the economy.¹²⁹ Pearkes and Fleming, however, remained firm on their recommendation of cancellation based on the rapid escalation in program costs and the perceived need to shift to missile defences.

The next day Diefenbaker was still undecided, and the Cabinet still split about what should be done about the Arrow program. The Prime Minister proposed that a final decision on the recommendations of the CDC should be deferred for a week or two, "...in the hope that new alternatives could be worked out, or a compromise reached."¹³⁰ Cabinet agreed, and deferred the decision on the Arrow for two weeks.

The Cabinet Conclusions for the 21 September 1958 meeting reveals that "few ministers had changed their minds on the desirability of cancelling the contracts for the Arrow and its associated equipment...[but Ministers were] clearly divided in its view of the central question."¹³¹ Those who wished to continue the contracts were still chiefly concerned that cancelling the program would hurt industry and exacerbate unemployment, and those advocating that the program be cancelled were concerned about the increasing cost and perceived

¹²⁸ Ibid.

¹²⁹ Ibid.

¹³⁰ LAC, PCO, Cabinet Conclusions, 8 September 1958.

¹³¹ LAC, PCO, Cabinet Conclusions, 21 September 1958.

obsolescence of fighter interceptors.¹³² It was argued that continuing the program would involve ignoring the advice of the military; if the public discovered that this had occurred, the perception would be that the government was spending money on an obsolete program for apparent political or economic gain.¹³³ In the end, Diefenbaker proposed a compromise, which involved “carrying on the development programme until March but ending the production programme on the Arrow and the Iroquois. This continuation of development might be regarded as a form of insurance in the present tense situation.”¹³⁴ Diefenbaker was apparently referring to the tensions in the Far East at the time caused by a Chinese threat to invade the tiny islands of Quemoy and Matsu – it was believed that a threat to these islands constituted a threat to the peace of the entire region, and especially to the island of Formosa, of which the US Administration was guaranteeing military protection. At length, the Cabinet decided that “the development programme for the Arrow aircraft and the Iroquois engine should be continued until March 31st, 1959, within the scope made possible by the amounts available for it in the estimates for the current fiscal year;”¹³⁵ however, production of the aircraft and engine would not be ordered, and there was the added requirement that a comprehensive review of the program be carried out before March 31st.

Elite Decision-Making: Cabinet Differences over Program Priorities

A key factor influencing discussions of the Arrow program during 1958 was disagreements within the Cabinet over priorities, and specifically, over how the budget should be allocated to policy and program areas. That the Cabinet was constrained in deciding policy and program

¹³² Ibid.

¹³³ Ibid.

¹³⁴ Ibid.

¹³⁵ Ibid.

priorities generally was evident the moment Finance Minister Fleming announced a “mammoth”¹³⁶ deficit of \$648 million for 1958-59. During the budget debate he emphasized the gravity of the financial situation:

I suppose it rarely falls to the lot of a Minister of Finance to be faced with conditions of his own choosing in preparing his budget. Hon. Members will not be slow to realize that a minister who is faced with a deficit of \$648 million is severely circumscribed in writing the kind of budget he would have wished. But we live in a world of realities.¹³⁷

The *Globe and Mail* later put the deficit figure into historical perspective, reporting that the released budget figures represented “the biggest peacetime deficit ever announced by a finance minister.”¹³⁸ For Prime Minister Diefenbaker, however, a budget deficit was warranted where the spending of public funds could assist a wide range of Canadians; he reminded his Cabinet constantly that the Conservatives had been elected on the basis of its election promises, which included a variety of new social programs. There were some in the Cabinet who agreed with him and some who did not. Patrick Kyba argues that it would be:

...too facile to characterize the split in cabinet as simply between the “spenders” and the “savers,” although this was an aspect of the struggle. One camp, led originally by Alvin Hamilton and Gordon Churchill with the occasional support of the prime minister, believed the government had to intervene actively in the economy to bring the growth rate back to the desired level, even if this meant an increase in the deficit. The other group, led by Donald Fleming with the support of his department, placed its faith in fiscal restraint and a balanced budget, and in this they had the full support of James Coyne, the governor of the Bank of Canada.¹³⁹

Fleming elaborates in his memoirs:

I was receiving far less assistance from them [my Cabinet colleagues] and from the Prime Minister than I needed, particularly in resisting expenditure. I found myself constantly at

¹³⁶ Fleming, *So Very Near, Volume One: The Rising Years*, 461.

¹³⁷ *Debates*, 17 June 1958, 1250.

¹³⁸ See Harvey Hickey, “Big Deficit Forecast by Fleming,” *Globe and Mail*, 18 June 1958.

¹³⁹ Patrick Kyba, *Alvin: A Biography of the Honourable Alvin Hamilton, P.C.* (Regina: Canadian Plains Research Centre, 1989), 209.

odds with them and far too often playing a lonely role in rejecting expenditures we could not afford. It was impossible for us to make ends meet then, but I never lost sight of that goal or weakened in my determination to achieve it.¹⁴⁰

But the Prime Minister's will prevailed when it came to determining the government's priorities.

Thus the 1958 Speech from the Throne made reference to a variety of new social security initiatives, including plans for hospital insurance and diagnostic services, unemployment insurance, veterans benefits, housing, public works, and agricultural stabilization.¹⁴¹ Spending on national defence was evidently not a priority for the Diefenbaker government: the Estimates that had been presented to Cabinet in early April showed a small overall expenditure increase for defence but no increase for new equipment.¹⁴² Pearkes, while Conservative defence critic, had argued for a reduction in defence spending, or at least a more even redistribution of the existing defence budget among the services — the air force at that time was receiving an unprecedented 48.5 percent of the total defence budget.¹⁴³ The St. Laurent government, he claimed, had been undisciplined in budgeting for national defence purposes: there should be “no room for moneys to be spent on any armament or equipment which [was] not required for an essential role.”¹⁴⁴

Elite Differences: Systemic Influences

Neoclassical realism proposes that government decision-making on strategic questions can be influenced by issues or problems of a systemic nature within government. One of the systemic issues, in the case of decision-making on the Arrow, was the serious tensions that existed

¹⁴⁰ Fleming, *So Very Near, Volume One: The Rising Years*, 554.

¹⁴¹ *Debates*, 12 May 1958, 5-6.

¹⁴² Michael Barkway, “Our Defence Dilemma,” *Financial Post*, 24 May, 1958.

¹⁴³ *Debates*, 1 April 1957, 2912-13.

¹⁴⁴ *Ibid.*, 2913.

between Diefenbaker personally and the government's military advisers. In terms of policy outcomes, these tensions worked against the alignment of Canadian defence policy with international strategic trends. The public controversy over the government's early approval of the NORAD Agreement in 1957 was the first of a number of developments that made Diefenbaker wary of accepting the advice that the government was receiving from the CSC.¹⁴⁵ As Pearkes later explained: "[Diefenbaker] had a certain distrust of generals at large and he was not particularly anxious to hear their opinions. He would rather hear my opinion in his office rather than have one of the Chiefs of Staff express an opinion in a committee."¹⁴⁶ According to Greig Stewart, Diefenbaker suspected members of the CSC of leaking information to officials at Avro Aircraft in the late summer of 1958, and gave the Chiefs of Staff a dressing down, "warning them of serious consequences if the indiscretions continued."¹⁴⁷ Moreover, the Cabinet Conclusions of 21 September 1958 contain traces of the Prime Minister's suspicion of the Chiefs: "There was some question as to just what the views of the Chiefs of Staff really were on [the Arrow] issue and how much reliance should be placed upon them. Their recommendation for termination of the programme now appeared to be at variance with their views earlier."¹⁴⁸

Another systemic influence affecting the Diefenbaker government's actions in dealing with the Arrow question was the Prime Minister's determination that his government be seen as different from its Liberal predecessor. The public perception of the St. Laurent Cabinet was that

¹⁴⁵ Charles Foulkes had been one of Pearkes' wartime officers, and that relationship may have allowed Foulkes to persuade Diefenbaker into hastily signing the agreement establishing the North American Air Defence Command (NORAD) with the United States in 1957. See Granatstein, *Canada's Army*, 347.

¹⁴⁶ Pearkes, My political recollections, 28-29.

¹⁴⁷ Greig Stewart, *Shutting Down the National Dream: A.V. Roe and the Tragedy of the Avro Arrow* (Scarborough: McGraw-Hill Ryerson Limited, 1988), 235.

¹⁴⁸ LAC, PCO, Cabinet Conclusions, 21 September 1958.

a small number of Ministers made most of the decisions. Diefenbaker insisted that, while he was Prime Minister, every Minister would have a say in Cabinet and that Cabinet decisions would require the agreement of all. The consequences for efficiencies in Cabinet decision-making were spelled out sometime later by Douglas Harkness, Pearkes's successor as Defence Minister:

[Diefenbaker] ...spent far too much time in cabinet asking the opinion of every member in connection with most questions. He would frequently have a series of meetings, with the result that ministers spent far too much time in cabinet and were not in a position to devote the amount of time that they needed to run their own departments. At some periods, when matters of considerable importance were up for discussion and decision, we would have two cabinet meetings a day almost continuously for a week or more.¹⁴⁹

Roy Faibish reported similarly:

If there wasn't a consensus and he didn't think the person holding out was a fool, to the exasperation of those of us who knew we were on the right course and wanted to get on with it, he would roll it over, bring it up another time, try to bring him around, almost like a lawyer trying to bring a jury around so you've got all the twelve heads nodding. In the end he usually decided, but he took so long that he was accused, properly, of procrastination.¹⁵⁰

The Influence of the Media, Special Interests and the Electorate on Decision-Making

Neoclassical realism asserts that "at times domestic actors can exert a decisive influence on how the state interprets international threats and opportunities, and how it responds to them... In general, the domestic actors that can be most influential are those that have sufficient power to remove the leader or executive from office, those that can use their veto to obstruct the government's programmatic goals, or those that can shape the definition of national interests."¹⁵¹

¹⁴⁹ Quoted in Peter Stursberg, *Diefenbaker: Leadership Gained 1956-62* (Toronto: University of Toronto Press, 1975), 176-77.

¹⁵⁰ Stursberg, *Diefenbaker*, 177-78.

¹⁵¹ Norrin M. Ripsman, "Neoclassical realism and domestic interest groups," in Steven E. Lobell, Norrin M. Ripsman, and Jeffrey W. Taliaferro, *Neoclassical Realism, the State and Foreign Policy* (Cambridge: Cambridge University Press, 2009), 192.

Decisions by the Diefenbaker government on the Arrow in 1958 were clearly influenced by pressures coming from a variety of domestic actors, including the print media, corporate and other special interests, and parts of the electorate, who believed, for various reasons that the Arrow should be continued.

The public's fascination with the CF-105 Arrow grew in 1958 as reports emanated from the press conveying details about progress at Avro on the fighter project and about its leading-edge technology. Public interest reached a crescendo on March 25 when, after a four-day delay in the original plans, a gleaming white prototype of the aircraft was rolled out of Avro Aircraft's hangar at Malton. Its impact on the onlookers was marred only by the press's simultaneous report of the Soviet Union's launch of Sputnik, which seemed to bear the contrasting inference that the bomber gap had been replaced by the missile gap.¹⁵² But public enthusiasm about the Arrow continued, and was reported in editorials published in magazines like *Maclean's*,¹⁵³ and in the *Globe and Mail*,¹⁵⁴ and reinforced by columnists like James Hornick,¹⁵⁵ Michael Barkway¹⁵⁶ and Franklin Russell¹⁵⁷ who were in favour of Canada developing and producing the Arrow. Together, these writers advanced three major arguments. The first was that the Arrow met the continuing need for a sophisticated fighter-interceptor for North American air defence; all of the talk about the shift to deterrence caused by the arrival of the missile age missed the point that the

¹⁵² James Hornick, "New Arrow Flies Exactly to Avro Plan," *Globe and Mail*, 26 March 1958.

¹⁵³ "Tomorrow's Defense: Should we scrap today's jets for missiles and Sputniks?" *Maclean's*, 12 April, 1958.

¹⁵⁴ "38,000 Parts Go Flying: Avro Arrow Takes to Air," *Globe and Mail*, 29 March 1958.

¹⁵⁵ See "Wings Over Canada: Arrows for RCAF Near Costs of Seaway," *Globe and Mail*, February 21, 1958; "New Arrow Flies Exactly to Avro Plan," *Globe and Mail*, 26 March, 1958; "Tributes from Abroad Cite Aviation Progress," *Globe and Mail*, 5 September, 1958.

¹⁵⁶ Michael Barkway, *Financial Post*, 3, 10, 24 May 1958.

¹⁵⁷ Franklin Russell, "Your Business and the Arrow's Fate," *Financial Post*, 20 September 1958.

Soviets were still building long-range bombers. The second was that the Arrow program was having a huge impact on the development of the aircraft, electronics and related technological/scientific sectors in Canada. And thirdly, thousands of jobs were being created for Canadians at Avro, Orenda Engines, and their subcontracting firms.

With the arrival of summer, and reports that the Arrow's development costs would likely climb to \$400 million amidst the accumulation of evidence that the day of the manned aircraft was over, the arguments in favour of the Arrow program slowly evolved into arguments against cancelling it. Giving testimony to the House of Commons Estimates Committee throughout June and July, Pearkes still insisted that the "major threat for several years ahead [would] continue to come from manned bombers."¹⁵⁸ But by the third week in August the Defence Minister and the Prime Minister were feeling the effects of a sustained and increasingly vocal pro-Arrow lobby that included actors like the United Auto Workers, the International Associations of Machinists, A.V. Roe Executives, the RCAF, which had seconded officers to Avro Aircraft to monitor the Arrow program's progress, and the press.

The most aggressive of the lobbyists, not surprisingly, were senior management officials at A.V. Roe. Vice-President of Avro Aircraft, W.A. Curtis, formerly Canada's Chief of the Air Staff, delivered a vigorous address to the RCAF Benevolent Association in Ottawa in May, in which he disputed the notion that the Arrow was obsolete in the new missile age: "We know," he declared, "that the Russians have been working on a Mach 2 bomber...as long as such a threat exists there will be a requirement for an aircraft like the Arrow".¹⁵⁹ Utilizing an argument derived from his World War II experience that Canada "...must never again be dependent upon

¹⁵⁸ Clark Davey, "Hopes Laid On Success Of Arrow," *Globe and Mail*, 8 July 1958.

¹⁵⁹ "Curtis Denies Arrow Too Costly, Obsolete," *Globe and Mail*, 13 May 1958.

sources outside our own borders for first line aircraft,” Curtis claimed that the Arrow was the “most advanced aircraft in the free world today”, whose development had created a whole new jet engine industry, new jobs, and “...increased the level of our technical know-how and capability.”¹⁶⁰ Curtis was followed by Avro’s President, John Plant, who publicly disputed the notion that it was cheaper to buy or build fighter aircraft under lease.¹⁶¹ In early September, Plant was also quoted by James Hornick in a report to the *Globe and Mail*: “If, because there may be a development coming behind the Arrow, we declare it to be obsolete and do nothing, we will find ourselves with no weapons whatsoever until the next one comes along. And so on, so we will never have any weapons.”¹⁶²

According to author James Dow, senior A.V. Roe officials knew by the end of August that the Arrow program was in serious trouble.¹⁶³ While A.V. Roe President Crawford Gordon was in England, Conservative Party strategist, John Tory met with Diefenbaker to discuss the program’s status but left the meeting with no guarantees. Tory then requested a meeting between himself and Avro Aircraft President Fred Smye and Pearkes, Fleming and the Minister of Defence Production, Raymond O’Hurley; later that day Smye met separately with O’Hurley and Deputy Minister of Defence Production, David Golden. Pearkes and Fleming reported to the Cabinet at a 3 September meeting that these meetings had been productive,¹⁶⁴ but Pearkes

¹⁶⁰ Ibid.

¹⁶¹ “Arrow Object of Interest: Avro Tour Impresses House Body,” *Globe and Mail*, 21 July 1958.

¹⁶² James Hornick, “Tributes from Abroad Cite Aviation Progress,” *Globe and Mail*, 5 September 1958.

¹⁶³ Dow, *The Arrow*, 122.

¹⁶⁴ LAC, PCO, Cabinet Conclusions, 3 September 1958, 4.

asserted that proposals submitted by A.V. Roe officials outlining possible savings on the Arrow development program “should be treated with reserve.”¹⁶⁵

Lobbying by A.V. Roe reached its peak about two weeks later when the company President, Crawford Gordon decided to deal directly and in person with the Prime Minister on the matter. The legendary meeting between Gordon and Diefenbaker on 17 September has been described by some analysts as instrumental in turning the Prime Minister’s instinctive support of the idea of an all-Canadian fighter-interceptor developed and produced by Canadians into a determination not to be pressured by anybody into a decision on the program’s future. As Greig Stewart tells the story, Gordon was advised by his staff to fly rather than take the overnight train to Ottawa, so that he would “arrive quietly and refreshed” for the meeting with the Prime Minister:

Gordon refused, and...he boarded a train for Ottawa, arriving many hours later at the Prime Minister’s door, ‘bombed’ and in ‘no shape for solid conversation’. To further aggravate matters, the Prime Minister couldn’t see Gordon right away, but let him cool his heels for almost two hours...When the Prime Minister was finally available, Gordon, still wearing his trench coat, got up, lit a cigar, and with something of his old, confident air, marched in to meet Mr. Diefenbaker...Gordon refused to sit or to let the Prime Minister get a word in. One can only imagine the scene. On one side of the desk, the Prime Minister of Canada, with all the assurance of a majority government; on the other side, the powerful but decadent industrialist, cigar in mouth, smelling of Scotch, pounding on his adversary’s desk, demanding a guarantee that the Arrow not be scrapped... When Gordon failed to lower his voice or stop the pounding, the Prime Minister warned he would be forcibly removed if he didn’t settle down. At this, Gordon turned and stomped out, his trench coat flaring like a cape behind him. The “meeting” had lasted less than twenty minutes. When Gordon met [Joe] Morley in the hall, his only comment was, “We’ll turn it around,” but later, when he called [Fred] Smye, he described the meeting as the most devastating experience of his life.¹⁶⁶

¹⁶⁵ Ibid.

¹⁶⁶ Stewart, *Shutting Down the National Dream*, 244.

Grattan O’Leary, a confidant of Diefenbaker, had his own version the events: “I was sitting in the anteroom when this fellow came out and he was white as a sheet. I was next in, and Dief said, ‘I have just told him that the thing is off.’”¹⁶⁷

While annoyed by all of the lobbying,¹⁶⁸ and offended by Gordon’s disrespectful behaviour, Diefenbaker was still reluctant to bring the Arrow program to an end. By the end of August, the CSC had advised Pearkes to terminate the program, based on strategic and resulting budgetary considerations. But the Prime Minister was influenced by another reality facing the government—a troubled Canadian economy. In Cabinet, serious concerns were expressed about possible layoffs of “well over 25,000” personnel at Avro Aircraft and Orenda Engines, which would have “an extremely adverse effect on the economy,” which at that time “...needed every push it could get.”¹⁶⁹ The Prime Minister was on record as promising improved employment prospects for Canadians under a Progressive Conservative government: “Canadians,” he had declared during the election, “realize your opportunities! This is the message I give you, my fellow Canadians. Not one of defeatism. Jobs! Jobs for hundreds of thousands of Canadians. A new vision! A new hope! A new soul for Canada.”¹⁷⁰ In fact, Canadians were now very concerned about jobs and about growing unemployment in the country: in a March 1958 poll, 86.1 percent of respondents identified unemployment as being “the greatest single problem facing Canada today.”¹⁷¹

¹⁶⁷ Stursberg, *Diefenbaker*, 122.

¹⁶⁸ Stewart, *Shutting Down the National Dream*, 235.

¹⁶⁹ LAC, PCO, Cabinet Conclusions, 28 August 1958.

¹⁷⁰ Peter C. Newman, *Renegade in Power: The Diefenbaker Years* (Toronto: McClelland and Stewart, 1973), 70.

¹⁷¹ “Greatest Problem Facing Canada,” *Canadian Gallup Poll*, March 1958, accessed October 23, 2015 <http://odesi2.scholarsportal.info/webview/>.

Years later, Donald Fleming wrote of how unemployment was always on Diefenbaker's mind: "The prospect of widespread unemployment haunted Diefenbaker. At every report he affected to see us going the way Bennett went in 1935. Such jitters were usually the prelude to asking cabinet to embark on some half-baked job-creation program without adequate consideration of the cost or the dangers of the precedents we were creating."¹⁷²

Unemployment remained the besetting problem facing cabinet. It dominated all our meetings. Not even after the general election did it yield the leading place in our deliberations. It simply terrorized Diefenbaker... In early January [1958] we were given a forecast that unemployment during that winter would reach a postwar record."¹⁷³

This fear of contributing to growing unemployment helps to explain Diefenbaker's compromise proposal in September 1958 that the Arrow development program be continued until the following spring. The Prime Minister was also acutely aware of the possible electoral fallout of the aircraft's cancellation in the Peel constituency, held by a sitting Conservative Member, in which Avro Aircraft and Orenda Engines were located. According to the Cabinet Conclusions of the 21 September 1958:

The chief concern of those who wished to have the Arrow contracts continued was the probable shock to the employment situation of such a major termination of work as would be involved in the cancelling of these contracts. It was recognized that the major impact would be psychological, not simply financial and it was very difficult to judge just how important an economic factor it would be.¹⁷⁴

The September 23, 1958 Press Release

When it came down, the decision on the Arrow program was announced by means of a 23 September 1958 press release, which reflected the influence of diametrically opposed forces

¹⁷² Donald Fleming, *So Very Near, Volume One: The Rising Years*, 411.

¹⁷³ *Ibid.*, 462-463.

¹⁷⁴ LAC, PCO, Cabinet Conclusions, 21 September 1958.

within Canadian society on the Diefenbaker government. There were two parts to the decision. The first part, widely interpreted by the public at the time as the effective cancellation of the Arrow program, affirmed that the Arrow would not be put into production and the ASTRA and SPARROW programs would be discontinued. The justification for this decision was that the Arrow program had been overtaken by strategic realities: “the preponderance of expert opinion” was that the “number of supersonic interceptor aircraft required for the RCAF air defence command will be substantially less than could have been foreseen a few years ago, if in fact such aircraft will be required at all in the 1960’s, in view of rapid strides being made in missiles by both the USA and the USSR.”¹⁷⁵ The reference to missiles, and more particularly the “coming age of missiles” and the importance of “maintenance of an effective deterrent against aggression” seemed to say that a fighter-interceptor like the Arrow would serve no purpose because the threat would come from intercontinental missiles—against which there could be no effective defence. In this respect, James Dow has argued, the press release was deliberately misleading:¹⁷⁶ it wanted to give the impression that there was no longer any use for an anti-bomber weapon like the Arrow with the arrival of the missile age, but then turned around and made the argument that Canada must accept BOMARC—basically a different kind of anti-bomber weapon. It seemed to say that the Arrow was obsolete in a new strategic environment, when it really should have admitted that the Arrow was simply too expensive and easily replaceable by a financially less costly and, in some respects, superior anti-bomber weapon, the BOMARC. The estimated cost of completing the development of the Arrow was \$1 ¼ billion in addition to the \$303 million already expended, which would amount to \$12 ½ million per

¹⁷⁵ McLin, *Canada’s Changing Defense Policy*, Appendix II, 225.

¹⁷⁶ Dow, *The Arrow*, 123.

aircraft. The comparative cost of installing BOMARC, together with improvements to PINETREE and the SAGE electronic control computing equipment, which were necessary for coordinating and controlling surface-to-air missiles, was unstated. However, it was argued that negotiations with the US Administration would work out arrangements for Canadian industry to share in the production of such equipment.

Whatever the merits of Dow's claim that the Diefenbaker government deliberately misled Canadians, it was, in deciding to cancel production of the Arrow, choosing to follow the dictates of the new strategic environment — which called for moving away from high-cost active air defences and towards missile defence. Such a decision was delayed until September 1958 by a combination of differences among the Chiefs of Staff and Cabinet Ministers over policy/budget priorities, and domestic pressures from Arrow enthusiasts, defence experts and commentators, RCAF leaders, and A.V. Roe officials. But the differences among the Chiefs of Staff finally narrowed and the lobbying by pro-Arrow groups and individuals ultimately failed in the face of the financial unsustainability of an aircraft project, the end product of which was still uncertain.

But there was a second part to the Diefenbaker's 23 September press release. While the Arrow was not to go into production, and ASTRA and SPARROW were to be cancelled, the Arrow development program was to continue forward until the spring of 1959, at which time a decision would be made on its future. "The Government believes", the press release stated, "that to discontinue abruptly the development of this aircraft and its engine, with its consequent effects upon the industry, would not be prudent with the international outlook as uncertain and tense as it is."¹⁷⁷ The allusion to the impact of cancellation of the Arrow on Canadian industry reflected a

¹⁷⁷ McLin, *Canada's Changing Defense Policy*, Appendix II, 226.

genuine concern on the part of Diefenbaker and other Ministers lest the government be accused of making decisions that contributed to the deteriorating unemployment situation in the country. This situation was made worse, it was inferred, by an apparently tense situation posed by China's threat to the islands of Quemoy and Matsu, which could escalate into a major international conflict into which Canada might be drawn. The Cabinet Conclusions for a 21 September meeting show that the impact of cancellation on industry and the unemployment situation likely weighed more heavily on the Prime Minister and the other Ministers than the worry about the tense situation in the far east—for they noted that “if in fact war broke out, it would be necessary to use current types of aircraft and possibly to concentrate on the CF-100 rather than proceed with the CF-105.”¹⁷⁸ These concerns, chapter three will show, would start to gradually fade from view in the early months of 1959.

Neoclassical realism asserts that a nation's security and defence policy is “determined by a twofold use of systemic and domestic-level variables, locating causal dynamics at both these levels, but focusing expressly on domestic dynamics to explain the external behavior of a state.”¹⁷⁹ In the case of the Arrow program, there were several of these domestic variables that prevented the government from coming to an early decision that conformed to the strategic imperatives of the day. One was the differences among Canada's military elites over the strategic rationale of the Canadian air defence system in the changing international environment. A second was the high priority given by the Diefenbaker Cabinet to implementing a series of reforms to Canada's social security programs, and its relative lack of interest in expanding

¹⁷⁸ LAC, PCO, Cabinet Conclusions, 21 September 1958.

¹⁷⁹ Amelia Hadfield-Amkhan, *British Foreign Policy, National Identity, and Neoclassical Realism* (Toronto: Rowman & Littlefield Publishers, Inc., 2010), 30.

Canada's air defences. A third was the Cabinet's concern about making decisions that would harm industry and cause an increase in the number of Canadians who were unemployed. The international security environment had been altered by the increased threat posed by Soviet intercontinental missiles, the increased integration of the continental defence forces of Canada and the US, and the perceived decline of the bomber threat – all of which called for less emphasis on active defence forces in North America, including those provided by fighter-interceptors. Until September 1958 there were several domestic influences that constrained the Diefenbaker government from responding accordingly.¹⁸⁰

¹⁸⁰ Ibid., 31.

CHAPTER THREE

The 23 September 1958 decision not to proceed with production of the CF-105 Arrow fighter-interceptor can be viewed as an outgrowth of Canada's recognition of the gradual shift in the international strategic environment away from defence and towards deterrence. But there were a number of domestic variables that influenced the government's decision-making. One of these variables was the insistence by the military elites that the Army and Navy's procurement needs and future investments in missile research were at least as important, in budgetary terms, as a single fighter-interceptor, no matter how technologically excellent. A second variable was the Cabinet's decision that the government's election promise to expand social security programs could not be honoured if production of the highly expensive Arrow project went ahead. A final variable was the excessive and thus counterproductive lobbying efforts by senior A.V. Roe, RCAF officials and other groups of Arrow enthusiasts which ended up alienating the Prime Minister and other Ministers who might, for reasons of national pride, have supported the program.

But the Cabinet hedged in its 23 September decision, apparently not totally convinced that the Arrow program should be abandoned: the government's press release stated that the Arrow development program would be continued until the spring of 1959. The hedging reflected lingering doubts in Cabinet, and especially in the mind of the Prime Minister, who worried constantly about public support, and about the domestic impact of halting a major industrial development project that would throw thousands of Canadians out of work. A second concern, according to the Cabinet minutes, was the possibility of an eruption of the Quemoy-Matsu crisis

in the Far East into a full-scale and lengthy war, towards which Canada would be unable to make a military contribution without a supply source of military aircraft.

Chapter three will examine elite decision-making and domestic influences in Canada that led to the eventual cancellation of the entire Arrow program in February 1959. With the use of the framework provided by neoclassical realism, it will show that the domestic actors who had lobbied the government to continue the Arrow program throughout 1958 had an impact on government decision-making, but were ultimately unsuccessful because of the excesses of their pressure tactics and also because of the escalating costs of the Arrow development program. These factors, together with the government's determination to fulfil its election commitments to develop new social security programs in areas such as unemployment insurance, hospitalization, family allowances, and housing gave Cabinet Ministers, and especially the Prime Minister, sufficient comfort to overcome their doubts about domestic consequences of cancellation, including contributing to the growth of the unemployment lines by laying off thousands of workers at Avro Aircraft, Orenda Engines, and the sub-contracting firms.

The Strategic Environment

The strategic environment remained essentially unaltered between September 1958 and the February 1959 announcement to cancel the Arrow program. Defence Research Board studies conducted in October 1958 by the Canadian Army Operational Research Establishment's R.J. Sutherland reaffirmed the emerging strategic shift to ballistic missiles and the need to curtail air defence spending accordingly.¹⁸¹ These studies provide evidence that the military elites accepted

¹⁸¹ Richter, *Avoiding Armageddon*, 230-31.

that defence was becoming less important than deterrence, and that air defences focusing on the manned bomber were effectively useless in dealing with a missile threat.

By December, statements by US officials both about the prospect of US support for the Arrow project and about US intentions concerning the procurement of its own fighter aircraft also reflected the widely accepted view that the international security environment had changed. At the first meeting of the recently struck Canada-US Committee on Joint Defence held on 15 December 1958, the US Secretary of Defence, Neil McElroy confirmed that his own Department was not including new interceptors in its funding requests for the 1960 fiscal year. The Defence Department was “cutting down drastically on interceptor procurement.”¹⁸² Finance Minister Donald Fleming told McElroy that the Canadian government wanted to know “with finality” the viewpoint of the US government on the possibility that it might be interested in the CF-105 Arrow. The response of McElroy was that US views were indeed final on this question: “The US government could not possibly buy any CF105s”.¹⁸³ Pearkes reported in turn to a 22 December 1958 Cabinet meeting that McElroy “had made it clear that the U.S. government would not buy the CF-105.”¹⁸⁴ In his memoirs, Fleming would later say that it was Bob Anderson, Secretary of the US Treasury who had “answered briefly, decisively, and finally, ‘No’” to the question of whether or not the US would buy the Arrow.¹⁸⁵ Shortly thereafter, the United Kingdom also

¹⁸² LAC, Records of the Department of National Defence RG 24, Vol. 20709, 3 Canada – United States Committee on Joint Defence, Record of Meeting of December 15, 1958.

¹⁸³ Ibid.

¹⁸⁴ LAC, PCO, Cabinet Conclusions, 22 December 1958.

¹⁸⁵ Donald Fleming, *So Very Near: The Political Memoirs of the Honourable Donald M. Fleming, Volume Two: The Summit Years* (Toronto: McClelland and Stewart Limited, 1985), 14.

refused to purchase the aircraft, thus diminishing the possibilities for a continuation of the Arrow program.¹⁸⁶

The Influence of the Media, Special Interests and the Electorate on Decision-Making

Commenting on the 23 September press release, newspaper editorials from the *Vancouver Sun*, *Edmonton Journal*, *Winnipeg Free Press*, *Financial Post*, *Montreal Gazette*, *Globe and Mail*, and the *Toronto Daily Star* were universally in agreement that the government had faced a difficult decision, especially because cancellation of production would mean the loss of hundreds of millions of dollars that had been spent on the aircraft's development, as well as the potential loss of a highly skilled workforce within the aircraft industry. The editorial writers recognized the validity of the arguments that had been made in support of the continuation of Arrow program, but concluded that the government had been warranted in cancelling plans for the Arrow's production.¹⁸⁷ Generally speaking, editorialists were critical of the Arrow program because of its escalating costs. According to the *Edmonton Journal*, the Arrow would end up costing thirty times as much as the famous Second World War era Spitfire;¹⁸⁸ to continue production for a further three years would mean spending \$300,000,000 more than Canada's

¹⁸⁶ Roy, *For Most Conspicuous Bravery*, 320.

¹⁸⁷ Tom Gould, "RCAF Shifts from Jets to Missiles: Deadly Bomarc Replaces Arrow", 24 September 1958, *Vancouver Sun*; "Government Decides Against Jet Planes," *Edmonton Journal*, 24 September 1958; "Fallen Arrow," *Winnipeg Free Press*, 24 September 1958; "Here's the Ottawa Text on Air Defence Program," *Financial Post*, 27 September 1958; "Production of Arrow Shelved, Switch to Missiles: Bomarc to Become Primary Weapons for Defence," *Montreal Gazette*, 24 September 1958; "Our Future Air Defence," *Globe and Mail*, 25 September 1958; "Ottawa Cancels Production of Jet Arrow," *Toronto Daily Star*, 24 September 1958.

¹⁸⁸ "Cabinet Faces Major Decision on Future of Expensive Jet," *Edmonton Journal*, 20 September 1958.

entire defence budget for 1958.¹⁸⁹ The comparison of the cost of the Arrow and the Spitfire put into perspective the exorbitant cost of Canada providing for its own defence. Reports in the 4 October 1958 edition of the *Financial Post* indicated that in order to acquire both the Arrow and the SAGE-BOMARC system, there would have to be a 30 percent increase in the defence budget.¹⁹⁰ Even though cost projections varied according to whether or not development expenses were included, or whether they were put forward by pro- or anti-Arrow lobbyists, the public was for the first time becoming aware of how much the Arrow would cost Canadian taxpayers.¹⁹¹ The *Globe and Mail* alone among newspapers across the country accepted the cost of the Arrow program as justified, and it alone among newspapers across the country viewed the government's 23 September press release as indicating a temporary postponement of the program.¹⁹²

Several Canadian reporters commented favourably on the halting of the production program. Arthur Blakely, a reporter on Parliament Hill for the *Montreal Gazette*, defended the government's decision because of the cost to the national taxpayer,¹⁹³ and emphasized that in light of a lack of foreign markets, the Arrow could not be "justified solely and simply as a make-work project."¹⁹⁴ Tom Gould of the *Vancouver Sun* was also highly critical of the Arrow

¹⁸⁹ "Diefenbaker Plans Statement Today," *Edmonton Journal*, 22 September 1958.

¹⁹⁰ *Financial Post*, October 4, 1958 referred to in McLin, *Canada's Changing Defense Policy*, 69.

¹⁹¹ McLin, *Canada's Changing Defense Policy*, 68.

¹⁹² There are a number of examples indicating the media outside of Ontario took Diefenbaker's press release to mean the program would inevitably be cancelled: see "Canada Picks Guided Missile Over High-Priced Arrow Jet," *Edmonton Journal*, 24 September 1958; "'Arrow' Studies Go On," *Montreal Gazette*, 2 October 1958; "Radical Switch in Air Defence: Shift From Jets To Missiles Seen as Crushing Blow to RCAF," *Winnipeg Free Press*, 24 September 1958.

¹⁹³ Arthur Blakely: "The High Cost of Weapons," *Montreal Gazette*, 7 October 1958.

¹⁹⁴ Blakely, "The Arrow Project Unlikely to Survive," *Montreal Gazette*, 11 February 1959.

program, and described funds already spent on the program and budgeted for the next six months as “money down the drainpipe”; according to Gould, the entire program should have been cancelled outright.¹⁹⁵ A critical editorial article in the *Sun* echoed Gould by stating that it made “no sense to spend \$100,000,000 more on the defunct Arrow” during the interim period from September until the projected March 31 deadline.¹⁹⁶

Shortly after the September 23 announcement, the Prime Minister left Ottawa on a seven-week international tour. By the time of his return to Canada in early December, Canadian defence analysts had resumed their ongoing criticism of the fighter project. In January, former Major General W.H.S. Macklin, while speaking at McGill University’s Conference on World Affairs, contended that Canada’s defence was “obsolete,” and that the defence budget was “bankrupting” the country and would contribute to the loss of the Cold War.¹⁹⁷ In a series of articles entitled “What is Wrong with Defence?” published on 13 and 14 January, Macklin argued that money spent on the Arrow was “money blown away.”¹⁹⁸ The program had cost nearly as much as the St. Lawrence Seaway; that wasted money could have been used to subsidize a merchant navy fleet for “twenty years.”¹⁹⁹

Former Chief of the General Staff, Lieutenant General Guy Simonds, having opposed the Arrow program back in 1954, told the *Winnipeg Free Press* that the costs of the program were all out of proportion to the usefulness of the aircraft. He remained convinced that “the CF-105

¹⁹⁵ Gould, “RCAF Shifts From Jets to Missiles.”

¹⁹⁶ “Make-Work Madness: Mr. Diefenbaker Announces His \$100,000,000 Boondoggle,” *Vancouver Sun*, 25 September 1958.

¹⁹⁷ W.H.S Macklin quoted in an article by John Sweeney, “Canadian Defence ‘Obsolete,’” *Montreal Gazette*, 14 November 1958.

¹⁹⁸ W.H.S. Macklin, “What is Wrong with Defence?” *Montreal Gazette*, 13-14 January 1959.

¹⁹⁹ *Ibid.*

Arrow would be obsolete before it went into service.”²⁰⁰ Canada should concentrate instead on helping to build a “defence against missiles”²⁰¹ with more money allocated for defence against the ICBM.²⁰² Simonds interpreted the 23 September press release, as did many others, as meaning that the Arrow would be cancelled, and he commended the government for making a “sensible decision not to spend millions or billions on aircraft which have become obsolete as far as strategic attack and defence are concerned.”²⁰³

But with the arrival of 1959 there was a noticeable change in the debate occurring around the Arrow program. The number of voices expressing support for the fighter-interceptor seemed to increase, having the effect of creating a lobby that pressured the government on a daily basis. As Greig Stewart has remarked, not one day passed without there being an article on A.V. Roe in at least one of the Toronto daily newspapers.²⁰⁴ Representatives of some of Avro’s subcontractors warned about the thousands of workers who would lose their jobs in the event of the cancellation of the program. Suppliers in Montreal called the government’s decision to cancel production an “awful mistake,” and expressed concerns about its probable effect on unemployment in the country.²⁰⁵ A.V. Roe’s President and General Manager, Crawford Gordon was having nothing of the criticism of the Arrow and chose to interpret the 23 September press release as meaning the program would continue: “I want to stress most emphatically,” he

²⁰⁰ “U.S. Won’t Buy Arrow,” *Winnipeg Free Press*, 15 December 1958.

²⁰¹ “Decision on Arrow Will Be Major Defence Move: Military, Political Views Differ Widely,” *Edmonton Journal*, 16 December 1958.

²⁰² “Simonds Raps Spending: Defence Useless Against ICBM,” *Montreal Gazette*, 4 November 1958.

²⁰³ “CF-105 Decision Is “Sensible,” Says Simonds,” *Edmonton Journal*, 24 September 1958.

²⁰⁴ Greig Stewart, *Arrow Through the Heart: The Life and Times of Crawford Gordon and the Avro Arrow* (Toronto: McGraw-Hill Ryerson, 1998), 132.

²⁰⁵ “‘An Awful Mistake’ – Suppliers,” *Montreal Gazette*, 24 September 1958.

declared, “that the Arrow program has not been cancelled;” rather “the Prime Minister’s statement said that the development program is to continue and the whole matter [would] be reviewed in March.”²⁰⁶ A.V. Roe executives now engaged in an intense lobby of the government: as Pearkes later said: “We were besieged by the A.V. Roe people – they were always knocking at the door.”²⁰⁷ According to Pearkes, the lobby included RCAF officials who had been seconded to A.V. Roe to monitor the fighter program.²⁰⁸ It also included labour union leaders, with the President of the Canadian Labour Congress urging the government to proceed with a “substantial” order for Arrows.²⁰⁹

The September announcement prompted renewed efforts to frame the Arrow as an issue having to do with the country’s national pride and independence. In early October 1958 former Liberal Finance Minister Walter Harris criticized the Conservative position on the Arrow as being “inconsistent with its policies concerning Canadian sovereignty.”²¹⁰ Stirring national pride was an effective strategy, as Diefenbaker was sensitive to those who maintained that Canada’s independence would be eroded by the loss of the Arrow and its subsequent reliance on US interceptors.²¹¹ He understood that the nationalist narrative resonated with the Canadian public, evidence of which was supplied by the *Edmonton Journal* editorial expressing concern over

²⁰⁶ “Avro To Keep Going,” *Montreal Gazette*, 25 September 25, 1958.

²⁰⁷ Roy, *For Most Conspicuous Bravery*, 318-19.

²⁰⁸ University of Victoria Libraries Special Collections, George Randolph Pearkes Papers, Reginald Roy Interview with Major-General G.R. Pearkes – April 5, 1967, 12.

²⁰⁹ “‘Order Arrows’ – Unions,” *Winnipeg Free Press*, 9 January 1959. See also: “Plight of Industry Topic: Aircraft Workers Meet,” *Montreal Gazette*, 26 November 1958; F.A. Ingraham, “Industry’s Death Knell if Arrow is Dropped, Union Group Believes,” *Globe and Mail*, 14 February 1959; “Councils, Union Join Fight Arrow Delay,” *Toronto Star*, 15 January 1959.

²¹⁰ “Avro Arrow Policy said Inconsistency of Tories,” *Toronto Star*, 8 October 1958.

²¹¹ Roy, *For Most Conspicuous Bravery*, 341-42.

Canada becoming “a mere satellite of its giant neighbor to the south”²¹² with respect to continental defence. Crawford Gordon provided fuel for this narrative in press statements arguing that reliance on other countries such as the US for defence would represent a “long step backward from the position of independence which this country has been laboriously building over the years.”²¹³

When Diefenbaker came into office, A.V. Roe’s public relations director had urged Crawford Gordon to portray A.V. Roe as a Canadian company, given that its funding came first and foremost from Canadian taxpayers.²¹⁴ Now he did just that, according to the *Montreal Gazette*’s Arthur Blakely:

From the moment that the Government’s inclination to discontinue the Arrow first became evident, Mr. Gordon mustered all of the resources of his large company to force the Government to change its mind. Every means was employed to appeal directly to the public over the Government’s head. The possible fate of skilled Canadian technicians – the possibility of a substantial addition to unemployment as a result of a single stroke of Government policy – these were tossed into the field of public controversy. Canadian pride in an aircraft designed and manufactured in Canada was exploited to the full. As was the spectre of a possible loss of Canadian sovereignty.²¹⁵

A further surge in public support of the Arrow appeared in the press immediately following a provocative 25 October *Maclean*’s article by Blair Fraser. Fraser interpreted the government’s 23 September statement to mean that the Arrow would definitely not be continued, and he commended the government’s courage in making such a difficult decision:

The plain truth is nobody thought the government would have the courage to make such a painful decision. The fact that the decision was right didn’t carry enough weight. It meant

²¹² “Defence Policy Faces Study: Co-Ordinated Plan Non-Existent,” *Edmonton Journal*, 3 December 1958.

²¹³ “Manned Fighter Essential,” *Financial Post*, 1 November 1958.

²¹⁴ Quoted in Stewart, *Arrow Through the Heart*, 106.

²¹⁵ Arthur Blakely, “Ottawa Day-By-Day: The Point of Impact,” *Montreal Gazette*, 26 February 1959.

an early end to more than twenty thousand jobs, most of them in the very heartland of the Conservative Party. It went against the emotional urges of all Canadian air-force men, and most air-force veterans. It disappointed a big Canadian industry with many big Conservative shareholders. In short, it was political poison, of a kind to scare any politician out of a year's growth.²¹⁶

According to James Dow, the Fraser article hit Malton "like a missile."²¹⁷ The reaction from A.V. Roe was swift. The company published a number of pieces in newspapers across the country with the intent of emphasizing the achievements of the company. The articles expressed confidence that the Arrow and Iroquois engine would in fact be ordered into production, and highlighted the company's contribution to the Canadian economy, and the Arrow's contribution to Canadian sovereignty.²¹⁸ Gordon provided his own defiant response to Fraser's article in the 20 December 1958 edition of *Maclean's*: "We should and will go on building Arrows...The day of the manned interceptor is not over..."²¹⁹

While the press had been of the view that the Arrow was, as an *Edmonton Journal* editorial put it, "a dead duck,"²²⁰ in November Air Marshal Roy Slemon, Deputy Commander-in-Chief of NORAD went on record, stating that the Arrow program needed to continue because of the aircraft's superiority over the alternative fighter that was being proposed for Canadian defence, the US Air Force's F-106.²²¹ Slemon's statement, made to US and Canadian press

²¹⁶ Blair Fraser, "What Led Canada to Junk the Arrow," *Maclean's*, 25 October 1958.

²¹⁷ Dow, *The Arrow*, 126.

²¹⁸ Examples of articles appearing following Fraser's piece on October 25 include: "AVRO Chairman Tells Shareholders of New Plans," *Edmonton Journal*, 30 October 1958; "Roe Head Confident Of Orders for 'Arrow,'" *Montreal Gazette*, 28 October 1958; "Arrow Ready If Govt. Wants It," *Winnipeg Free Press*, 28 October 1958; "Manned Fighter Essential," *Financial Post*, 1 November 1958; "Gordon Confident Arrow To be Put in Production," *Toronto Star*, 27 October 1958 (this article reports on Gordon speaking at Avro's annual meeting).

²¹⁹ Quoted in Dow, *The Arrow*, 129.

²²⁰ "Switch to Missiles Leaves RCAF Speechless," *Edmonton Journal*, 25 September 1958.

²²¹ Roy, *For Most Conspicuous Bravery*, 319-20.

representatives at NORAD's headquarters, stressed that the manned interceptor would be an "inescapable requirement"²²² in the air defence system "for as far into the future as we can see."²²³

That this advice was coming from the Deputy Commander-in-Chief at NORAD, who had previously served as Canada's Chief of the Air Staff, created confusion over whether the government was intent on cancelling the Arrow program.²²⁴ An editorial in the *Montreal Gazette* argued that it would be "inconceivable that Air Marshal Slemon should make statements in sharp conflict with announced Canadian Government policy" without being aware of change.²²⁵ A front-page article in the *Vancouver Sun* similarly took Slemon's statements to indicate that there could be a change in government policy: "Until Slemon spoke Monday, it was generally conceded that the Arrow was dead, killed by a government policy statement made Sept. 23."²²⁶ Opposition Leader Lester Pearson told the *Edmonton Journal* that he considered Slemon's statements to be unacceptable because they appeared to contradict government policy²²⁷ and brought an "additional note of confusion and uncertainty to a situation which is confused enough."²²⁸

²²² "Manned Interceptor Vital, Asserts Slemon: 'Arrow' is held best," *Montreal Gazette*, 25 November 1958.

²²³ "North American Can Fight, Win Air War: Manned Interceptors in Use for Many Years, Says NORAD," *Edmonton Journal*, 25 November 1958.

²²⁴ Roy, *For Most Conspicuous Bravery*, 320.

²²⁵ "Arrow Turnabout Latest Indication On Ottawa Policy: Arrow Not Washed Out; Big Deal Seen for Montreal – O'Hurley," *Montreal Gazette*, 26 November 1958.

²²⁶ "'My head may roll,' says Slemon: RCAF Chief Risks Job to Save Arrow," *Vancouver Sun*, 25 November 1958.

²²⁷ *Debates*, 19 January 1959, 47.

²²⁸ "Pearkes Says Still Hope for Arrow," *Edmonton Journal*, 25 November 1958.

The confusion generated by Slemon's public statements was discussed at length in Cabinet in the late fall of 1958. It was agreed that Slemon had "placed the government in a difficult position and had discussed matters of government policy which normally are outside the province of senior military officers."²²⁹ Slemon "should have known that the matter was a political issue... The question was whether a military officer had acted in a manner to challenge the civil control of policy."²³⁰ Crawford Gordon considered Slemon's statement as constituting expert opinion, using it to bolster his own claims that the Arrow should be continued.²³¹

When Diefenbaker returned from his world tour, he expressed his displeasure at Slemon's statement. He was "shocked" by the statement, which he read about in the press: it "was not a question of whether Slemon's remarks had been misinterpreted or not but whether he should have made a statement of that kind at all."²³² Diefenbaker resented the remarks because they suggested that the government was not in control of its own agenda:

Avro had put on a tremendous publicity campaign and [Slemon's statement] played right into their hands. If the government decided to continue development it would be accused of giving in to a powerful lobby. Pressure was coming from other sources in Ontario too. Even if he thought the decision reached last September was wrong, he was determined, because of what had happened since, to adhere firmly to it.²³³

Diefenbaker's reference to pressure from "other sources in Ontario" was to the lobbying campaign waged by Ontario Premier Leslie Frost to keep the project alive.²³⁴ Fleming later

²²⁹ LAC, PCO, Cabinet Conclusions, 27 November 1958.

²³⁰ Ibid.

²³¹ "Manned Fighter Essential," *Financial Post*, 1 November 1958.

²³² LAC, PCO, Cabinet Conclusions, 22 December 1958.

²³³ Ibid.

²³⁴ Roger Graham, *Old Man Ontario: Leslie M. Frost* (Toronto: University of Toronto Press), 357; see also Fleming, *So Very Near: Volume Two: The Summit Years*, 15.

recalled that the government had been “bombarded”²³⁵ by representatives from the Frost government:

Our [Conservative] MPs representing the several ridings in the Malton area saw their political futures at stake, and Les Frost, planning the next Ontario provincial election the following spring, also interceded very actively on behalf of the Arrow program.²³⁶

With the arrival of 1959 the Liberal Opposition also weighed in on the subject of the Arrow, with Lester Pearson criticizing the government in the House for its poor articulation of Canadian defence policy, and its confusing position on the Arrow program:

We have had little or no information from the government up to the present but the press is full of statements from officers, active and retired, from industries and unions and from experts and non-experts dealing with this matter. The confusion that has resulted has not been cleared but, as I said, has even been confounded by official statements by spokesmen of the government... We are reaching, if we have not already reached, a cross-roads in our defence policy. The developments of the past year or two have been very important indeed.²³⁷

Nearing the end of January, however, it was becoming apparent that the heavy lobbying by A.V. Roe executives, senior military officials, defence experts and press editorials and writers in favour of the Arrow would have at best a limited effect on the Prime Minister. He told the House of Commons on 19 January that:

Lobbies will have no effect on the decision that this government makes on the question of defence. That statement applies generally. While the government will at all times welcome suggestions, ideas and arguments, I think the experience generally has been that the stronger the lobby, the weaker the argument.²³⁸

²³⁵ Fleming, *So Very Near: Volume Two: The Summit Years*, 17.

²³⁶ *Ibid.*, 15.

²³⁷ House of Commons, *Debates*, 19 January 1959, 47.

²³⁸ *Ibid.*, 57.

Elite Decision-Making: Cabinet and the CDC

The record of meetings of the Cabinet and CDC between November 1958 and February 1959 show a Cabinet that believed that the changes in the strategic environment did not warrant Canada developing and producing its own fighter aircraft. But there were, as through most of 1958, influences at the elite level pulling the Cabinet in different directions on the question of whether to continue the development program. One of these was the general state of public finances. At a Cabinet meeting on 27 November 1958, the Finance Minister revealed that the government was already faced with a possible \$700 million deficit for 1958-59, with a possible deficit of \$900 million for the following year based on proposed department estimates.²³⁹ It was necessary, Fleming emphasized, “to do everything possible to reduce the \$900 million [deficit] figure.”²⁴⁰ Two days earlier, Pearkes had told the Cabinet that only the cancellation costs of the Arrow would be included in the Estimates for 1959-60; no provision had been made for proceeding with the Arrow program after 31 March. Although Diefenbaker was not in attendance at the Cabinet meeting, and Pearkes did say that this decision could be reversed if the government decided to continue the development program, it now proceeded under the assumption that the Arrow would be cancelled.²⁴¹

A second influence was the continuing concern within Cabinet about the high cost of the Arrow program, given the uncertainty of the benefits to be gained from the fighter program in the new strategic environment of deterrence. While A.V. Roe announced that it had found savings by replacing the electronics and missile package with a cheaper system produced by

²³⁹ LAC, PCO, Cabinet Conclusions, 27 November 1958.

²⁴⁰ Ibid.

²⁴¹ LAC, PCO, Cabinet Conclusions, 25 November 1958.

Hughes Aircraft, and was proposing a revised per-unit price of \$7.02 million as opposed to the \$12.86 million per aircraft, as of 1 September 1958 (not including the cancellation charges for the electronics/missile package or the cost of its replacement), Pearkes told the Cabinet that the question was not ultimately about costs but about the “contribution” that the CF-105 would make to North American defences, which he thought would be “small.”²⁴² The F-108, which the US Air Force had set its sights as its front-line fighter-interceptor, had a considerable advantage over the CF-105 in terms of its range. In fact Canada might not be faced with purchasing an interceptor, if the US committed itself to a much cheaper means of defending against a bomber in the BOMARC missile.²⁴³

With the arrival of February, the Cabinet was made aware of some other cost projections related to equipment for security and defence. Canada’s F-86 aircraft in the RCAF Air Division in Europe were obsolete, and NATO military authorities were requesting that they be replaced by aircraft possessing a strike capability. It was estimated that the cost of replacement aircraft, the most likely candidate being a plane produced by Grumman, could be as high as \$500 million.²⁴⁴ When the Estimates were fully discussed in Cabinet on 3 February, the Prime Minister speculated that there might be questions about the Arrow development program, given that there was no funding for it. He mused that it might be advisable to make a final decision now, and announce cancellation when the estimates were tabled. He had discussed the Arrow and other defence matters with the Chiefs of Staff a few days earlier, who had said that “no new military factors regarding either the manned bomber threat or developments to meet the threat...had

²⁴² LAC, PCO, Cabinet Conclusions, 13 January 1959.

²⁴³ Ibid.

²⁴⁴ LAC, PCO, Cabinet Conclusions, 10 February 1959.

emerged since September which would have a bearing on the Arrow decision.”²⁴⁵ The strategic imperative continued to call for a decreased emphasis on fighter defences and more of a focus on deterrence and anti-missile research. Pearkes provided more detail on the current state of the finances around the Arrow program, observing that \$105 million more would be required to carry the Arrow program forward until 31 March. While costs had been reduced, he still considered that the production of 100 aircraft at this price could not be justified, and he recommended once more that the development program for the Arrow be discontinued.²⁴⁶ But the Cabinet was not ready to make a decision before the previously announced March date. Reflecting the lingering differences in the Cabinet over the Arrow, there was still some strong feeling that before a decision was made, the Cabinet should consider “what steps might be taken to maintain employment at AVRO.”²⁴⁷ But other Ministers believed it was “impractical to think of providing other work for AVRO as soon as the Arrow programme was halted.”²⁴⁸

Evidently unable to get agreement around the Cabinet table, the next day Diefenbaker departed from his usual practice and called a meeting of the CDC to discuss the issues around the Arrow. The meeting began with Pearkes putting forward a recommendation that further development of the Arrow be discontinued. The Chairman of the Chiefs of Staff added that his Committee was still of the opinion that “the changing threat and the rapid advances in technology particularly in the missile field, along with the decreasing requirements for manned interceptors in Canada, created grave doubts as to whether a limited number of aircraft of such extraordinarily high cost would provide a defence return commensurate with the

²⁴⁵ LAC, PCO, Cabinet Conclusions, 3 February 1959.

²⁴⁶ LAC, PCO, Cabinet Conclusions, 4 February 1959.

²⁴⁷ LAC, PCO, Cabinet Conclusions, 3 February 1959.

²⁴⁸ Ibid.

expenditures.”²⁴⁹ These comments caused another lengthy debate covering old ground. The old argument that Canada must, at all costs, provide for its own air defence was addressed by one of the Ministers:

Canada could not be expected to provide every type of defence for her own territory. The defence of North America was a matter of mutual defence and Canada was making her contribution by the provision of air space, expenditures on warning systems, communications, Bomarc and with respect to a share in the ballistic missile early warning system. The NORAD agreement would enable U.S squadrons of interceptors to be stationed temporarily in Canada, but if the risk of attacks from manned bombers was declining quickly, as many believed it was, such stationing might never be required, let alone the provision of interceptors by Canada herself.²⁵⁰

One of the reasons why the Cabinet had hesitated to cancel the Arrow program in September 1958 was the threat of a world war arising out of a crisis involving the tiny islands of Quemoy and Matsu. That situation now “appeared to be better”, according to the meeting minutes, although the prospect of the Soviets cutting off access to West Berlin had become cause for real concern. One of the Ministers argued that the tensions over Berlin were sufficient justification for not demobilizing the technical team at A.V. Roe. But aside from this, the only other argument made to continue the Arrow program was that there would be some disenchantment among the public in the case where Canada was supplying aircraft to the Air Division in NATO for the defence of Europe, yet did not possess its own interceptors to defend the homeland.

During the meeting, the Deputy Minister of Defence Production reminded the Committee that the costs associated with the development of the Arrow were continuing to climb.

Development costs to 31 October 1958 had been \$264.4 million. As of now, the projected

²⁴⁹ LAC, PCO, Cabinet Conclusions, 5 February 1959.

²⁵⁰ Ibid.

development costs as of 15 February were \$325 million and \$45 million for charges for the cancellation of ASTRA and SPARROW; if the Arrow program was to be terminated at the end of March, the costs would be \$342.2 million and \$40 million respectively. The External Affairs Minister followed by declaring that the Arrow program should be cancelled at once, to save money. These were all arguments that further reinforced the strategic case in favour of cancelling the Arrow—which was reiterated during the meeting by the Chairman of the Chiefs of Staff Committee:

The Chiefs of Staff had reviewed their position regarding going into production on the CF-105 that morning. They reviewed the advice they had tendered to the Cabinet on this subject last August 22nd and they were still of the opinion that the changing threat and the rapid advances in technology, particularly in the missile field, along with the decreasing requirements for manned interceptors in Canada, created grave doubts as to whether a limited number of aircraft of such extraordinarily high cost would provide a defence return commensurate with the expenditures.”²⁵¹

In the end, after a lengthy discussion, the CDC “agreed to recommend to the Cabinet that further development of the CF-105 aircraft be discontinued now.”²⁵²

Back in Cabinet, Parkes reiterated the view of the Chiefs of Staff that the threat of an attack on North America by manned bombers was “rapidly diminishing.”²⁵³ Parkes “felt that Russia would not consider launching an attack until it had a large arsenal of intercontinental ballistic missiles. Against these, manned interceptors were useless.”²⁵⁴ The US had cut back on the development of fighter-interceptors to a point where it was developing only one, the long-range F-108; this fighter could defend the entirety of Canada.”²⁵⁵

²⁵¹ Ibid.

²⁵² Ibid.

²⁵³ LAC, PCO, Cabinet Conclusions, 10 February, 1959.

²⁵⁴ Ibid.

²⁵⁵ Ibid.

Such arguments did not deter A.V. Roe officials, who, now becoming desperate, chose to pursue the high-risk strategy of trying to force the government's hand. On 14 February, the Acting Minister of Defence Production, Howard Green, acting in the place of the Minister, reported the company's latest announcement that the development costs of the Arrow were "likely to exceed the financial limitations that had been previously set on the programme, and that, unless these financial limitations were increased, it would be necessary for them [Avro] now to begin laying off personnel until such time as the contract was extended or terminated."²⁵⁶ Green was incensed, and declared that the reply should be that the company would be paid reasonable and proper costs until the contract was terminated. Here was yet another instance of counterproductive results flowing from blatant pressure tactics.

In the discussion that followed, the other remaining issues that had caused the Cabinet to hesitate on the Arrow's cancellation back in September were addressed. The 23 September statement had indicated that the development program for the aircraft would be continued until March because of the uncertainty of the international situation caused by the crisis involving Quemoy and Matsu. These circumstances had now changed: the threat of a conflict had passed. Secondly, the argument that the optics would be all wrong were Canada to supply fighters to NATO while not having its own aircraft to defend its own territory was questionable. For the RCAF "would be using Bomarc's to defend Canada, and no decision was being proposed now to use aircraft in Europe;"²⁵⁷ moreover, the NATO requirement might not be for fighters but rather missiles. The Cabinet agreed that the final decision on discontinuing the development of the Arrow should be taken at a Cabinet meeting to be held on 17 February. It was expected that all of

²⁵⁶ LAC, PCO, Cabinet Conclusions, 14 February, 1959.

²⁵⁷ Ibid.

the Cabinet would be present that day, including the Minister of Labour, who still had concerns about the decision's impact on Canada's employment situation, and the Minister of Defence Production whose Department would be most seriously affected.²⁵⁸

One last attempt to pressure the government to save the Arrow was reported at the outset of the 17 February meeting of Cabinet. Minister without Portfolio, James Macdonnell recounted a conversation he had had the previous day with Ontario's Premier Leslie Frost, who had spoken "in strong terms about the effects of terminating the Arrow contract upon the municipalities in the vicinity of Malton."²⁵⁹ Fleming recalled a similar conversation that he had had with Premier Frost, in which the premier "had also spoken to him in pungent language about work on the Arrow being stopped. Mr. Frost had complained about so little notice being given to Avro, and had asked why other contracts could not be given to the company."²⁶⁰ In reply, Fleming had told the Ontario Premier that the Arrow program had been discussed at length and all of the options "exhaustively" considered; the government's decision had been taken on the basis of "the best military advice available."²⁶¹ He reminded the Cabinet that it had been understood from the outset of the Arrow project, back in 1953, that the Arrow program would be reviewed year by year. At length, the Cabinet reached agreement that the "development of the Arrow aircraft and Iroquois engine be discontinued, effective as of the time of [the] announcement."²⁶²

²⁵⁸ Ibid.

²⁵⁹ LAC, PCO, Cabinet Conclusions, 17 February, 1959.

²⁶⁰ Ibid.

²⁶¹ Ibid.

²⁶² Ibid.

Cancellation Announcement

On 20 February, the Prime Minister announced to the House of Commons the government's decision to cancel the Arrow, citing the "nature of the threats to North America in future years, the alternative means of defence against such threats, and the estimated costs thereof" as having been "carefully examined" prior to coming to the decision.²⁶³ He reassured the House that the government had "taken fully into account the present and prospective international situation," describing the "rapidly changing defence picture" as requiring difficult decisions.²⁶⁴ Diefenbaker referred to the "almost unbelievable nature of the world in which we live" when referring to the fact that "the bomber threat against which the CF-105 was intended to provide defence [had] diminished, and alternative means of meeting the threat [had] been developed much earlier than was expected."²⁶⁵

Domestic factors clearly played a key role in influencing the Diefenbaker Cabinet's decision to cancel CF-105 Arrow. Ministers debated the domestic implications of cancellation through six Cabinet meetings from 31 December 1958 to 14 February 1959.²⁶⁶ While the external environment did eventually determine Canadian defence policy due to the perceived diminishing requirement of interceptors, the absence of foreign markets, and rising costs, decision-making was prolonged by an array of domestic considerations, such as growing unemployment in Canada and the related debate over budget priorities. The military elite in Canada, the CSC, had come to the conclusion that the changed international strategic environment diminished the importance of manned interceptors as the primary means of

²⁶³ *Debates*, 20 February 1959, 1221.

²⁶⁴ *Ibid.*

²⁶⁵ *Ibid.*

²⁶⁶ Smith, *Rogue Tory*, 317.

defending the country. On these grounds, they had recommended that the Arrow be cancelled on 22 August 1958, and then again on 5 February 1959. However, it took Diefenbaker and his Cabinet months to come to a consensus and to make a final decision. The Cabinet's delay can be explained, using the framework of neoclassical realism, by examining the domestic influences that were pulling the government in different directions — influences such as the editorial writers and defence experts in the media, Arrow enthusiasts, former Canadian defence officials, members of Parliament from the Malton constituencies, and the Premier of Ontario. Not least, and arguably one of the most influential of the factors moving the government in the direction of accepting the dictates of the changing international environment, were the extreme and ill-fated attempts by senior A.V. Roe officials to force the government to continue the Arrow program.

CONCLUSION

The purpose of this case study has been to provide an analysis of the key decisions made by the Diefenbaker government from 1958 to 1959, leading up to the cancellation of the Avro CF-105 Arrow. Using the framework of neoclassical realism, it has focused on the factors that influence a state as it responds to the demands of the international strategic environment. In the case of decision-making regarding the Arrow fighter-interceptor, neoclassical realism is used to analyze two specific categories of intervening domestic variables: the degree of elite consensus on strategy and on the government's policy and program priorities; and domestic influences on elite decision-makers expressed through public opinion, the media, and special interests. While the strategic environment of the late 1950s seemed to require a reduced number of interceptors, thus calling into question the utility of the expensive Arrow program, the Diefenbaker government found itself influenced by various domestic forces pulling it in different directions as it tried to decide on the program's future.

The government's delay in arriving at a decision was the consequence, to a considerable degree, of differences among the military elites in assessing the changes in the strategic environment and in deciding what Canada's defence strategy should be. As Massie has observed, "decision-makers may disagree on the imminence and nature of threats, as well as on the proper means to counter them."²⁶⁷ In this case, differences among the military elites were reflected in, and compounded by, their disagreements over how Canada's defence budget should be allocated between the Air Force, Army and Navy. The Chiefs of Staff never did reach total agreement on what Canada's defence strategy should be, but they did agree that, given the advance of missilery

²⁶⁷ Massie, "Canada's war for prestige in Afghanistan," 278.

in the international system, and the increased demands on Canada's defence budget regarding security in North America and Europe, the development and production a single fighter-interceptor program of such expense as the CF-105 Arrow was not supportable or sustainable. The disagreements among the military elites had a faint echo at the level of the Cabinet, where Canada's Defence Minister, George Pearkes, and some of the other Ministers, remained uncertain about whether the international strategic environment had in fact changed all that much. Some were inclined to believe that the Soviet bomber threat continued to be real and thus that a fighter-interceptor like the CF-105 Arrow could be justified.

Yet another factor contributing to the government's delay was the insistence by the Prime Minister that the government always make decisions that would have the support of the electorate: Diefenbaker and most of the Cabinet understood fully that there would be serious electoral fallout from a decision to cancel the Arrow program, which would throw more than 25,000 employees in the aircraft industry out of work, in addition to 15,000 employees working at Avro and Orenda.

Pushing the government towards cancellation of the aircraft, on the other hand, was the Finance Minister, who was trying to reduce government expenditures overall, and spending on air defence equipment in particular— with defence spending consuming around 40 percent of the federal budget. The Prime Minister and most of the Cabinet sympathized with Fleming on the matter of defence spending; however, they were focused on implementing election promises to increase program spending in the areas of hospitalization, family allowances, old age pensions, unemployment insurance and housing.

During the months of delay, various other forces in the domestic arena were waging strong efforts to either continue the Arrow program or end it. The former included senior RCAF officials, senior executives at A.V. Roe, Members of Parliament with seats around Malton, Cabinet Ministers such as the Ministers of Defence Production and Labour whose portfolios and budgets were directly affected, retired defence professionals, and passionate enthusiasts of the excitingly innovative, Canadian-developed fighter-interceptor in the public and press. The forces in the public realm who wanted to end the Arrow program included some defence experts who argued that the Arrow did not fit with international strategic realities, and editorial and public opinion which viewed the cost of the Arrow, no matter how innovative its technology might be, to be unacceptable—again given changes in the international environment. What neoclassical realism reveals, looking at the Arrow case, is that international strategic realities are determinant in foreign policy-making but nations may be influenced by forces in the domestic policy process.

According to David McDonough, one of the factors that can influence a state's perception of the international strategic environment is its geopolitical location in relation to other important states. He notes that Canada's "geopolitical-structural" environment—being a neighbour to the US— can be usefully viewed as a contextual or "operational milieu" for Canadian decision-makers: it does not necessarily determine Canada's strategic behaviour, "but it can constrain Canada's policy options and compel Ottawa to make significant decisions and choices in its foreign, defence and security policies."²⁶⁸ While the thesis has not explored the importance of this factor in any depth in the case of the Arrow, it is evident that geopolitics did

²⁶⁸ David S. McDonough, "Ambivalent Ally: Culture, Cybernetics, and the Evolution of Canadian Grand Strategy" (PhD dissertation, Dalhousie University, 2011), 95; Middlemiss and Sokolsky, *Canadian Defence*, 138.

constrain Canada's policy options. Because the US was the greater power in a North American defence system, it determined what form the North American defence strategy would take—a strategy with which a highly sophisticated and expensive Canadian-developed fighter-interceptor did not really fit. And yet the final decision to cancel the Arrow can also be seen as the product of an assessment by Canada's own defence experts of what changes were actually taking place in the international strategic environment. As Andrew Richter has demonstrated, the advice from which the Canadian Government took its measure in the mid- to late 1950s was the advice that it received from senior Canadian military experts such as the Canadian Army Operational Research Establishment's R.J. Sutherland and the Defence Research Board's A.H. Zimmerman and J.E. Keyston. These officials were predicting that the Soviets would cease producing bombers in 1960, several years before the date predicted by their US counterparts—thus hastening the Diefenbaker government's decision to end the Arrow program.

Another part of the “operational milieu” for Canada in regard to the US was the inchoate relationship between the US and Canada defence industries. There is little doubt that there were constraints on Canada's options regarding the Arrow because of the strong grip of the US aircraft industry on the development of fighter-interceptor aircraft for defending North America. As Lawrence Aronsen has shown, there was no post-war case where the US had deployed frontline fighters that had been developed by another country.²⁶⁹ And yet there were individuals and forces within the US defence system that were working in the opposition direction, giving Canadian leaders hope that the Arrow might be developed for North American defence. Story

²⁶⁹ Quoted in Story and Isinger, “The Origins of the Cancellation,” 1030.

and Isinger,²⁷⁰ and other writers,²⁷¹ have demonstrated that senior US officials at places such as Hughes Aircraft and in the US Defence Department that provided significant research support for the development of the Arrow, and that there was an opportunity for Canada, which its officials failed to seize, whereby the US would have purchased Arrow aircraft to operate out of Canada's NORAD bases.

Neoclassical realism is well suited to examine the events and forces surrounding important foreign policy decision-making, such as that found in the latter days before the cancellation of the Avro CF-105 Arrow, because it allows for a systematic exploration of foreign policy decision-making, that covers both domestic and international strategic influences. It takes into consideration the fact that domestic factors in foreign policy are not negligible and often impact elite decision-making. However, it does not expect such domestic considerations to have enough of an impact to determine the direction of grand strategy.²⁷²

Haglund and Onea maintain that the roots of neoclassical realism are found in traditional approaches to the study of Canadian foreign policy: "Surprisingly and paradoxically, something like neoclassical realism actually has been a staple of Canadian foreign policy for years, both in practice and in theory – and this even though few Canadian academics or policy makers would conceive of themselves as being neoclassical (or any other kind of realists)."²⁷³ The traditional approach to analyzing Canadian foreign policy, taken by traditional scholars such as John W. Holmes, Denis Stairs and James Eayrs was atheoretical and has existed largely outside of the

²⁷⁰ Isinger and Story, "The Plane Truth," 53.

²⁷¹ Chris Gainor, *Who Killed the Avro Arrow?* (Edmonton: Folklore Publishing, 2007), 215-24.

²⁷² Onea, "Putting the 'Classical' in Neoclassical Realism," 146.

²⁷³ D.G. Haglund and Tudor Onea, "Sympathy for the Devil: Myths of Neoclassical Realism in Canadian Foreign Policy," *Canadian Foreign Policy Journal* 14, no. 2 (2008): 54.

theoretical debates of international relations.²⁷⁴ The utility and persuasiveness of their writings, says Brian Bow:

does not come from their grounding in a theoretical framework, but rather from the analyst's personal credibility, direct experience, and/or thorough research. It is not interested in constructing elaborate theories or accumulating a foundation of knowledge, but rather in building a repository of wisdom about Canadian foreign policy that can guide policymakers and improve the quality of public debate.²⁷⁵

And yet as Kim Richard Nossal has observed, scholars like Holmes, Eayrs and even historians like C.P. Stacey used a modified statist paradigm that viewed the state as constrained and at the same time driven by societal preferences.²⁷⁶ Dan Middlemiss and Joel Sokolsky, two other traditional writers in the field of Canadian foreign policy, also identify the importance of domestic constraints on foreign policy: it is "because the external environment does not automatically determine all of Canadian defence policy that the governmental and domestic environments are also important in understanding the process and content of defence decision making."²⁷⁷ In short, there are very real and observable domestic constraints that influence the decision-making of the government of the day:

The federal government is the paramount institution with respect to national-security issues: it filters the interests, demands, and pressures emanating from Canadian domestic society and from the broader reaches of the international system. Here, competing and

²⁷⁴ Brian Bow, "Paradigms and Paradoxes: Canadian foreign policy in theory, research, and practice" *International Journal* 65, no. 2 (Spring 2010): 373.

²⁷⁵ *Ibid.*, 374.

²⁷⁶ Kim Richard Nossal, "Analyzing the Domestic Sources of Canadian Foreign Policy," *International Journal* 39 (1983): 18. See also: James Eayrs, *In Defence of Canada* (5 vols; Toronto: University of Toronto Press, 1964-83); John W. Holmes, *The Shaping of Peace: Canada and the Search for World Order, 1943-1957* (2 vols; Toronto: University of Toronto Press, 1979, 1982); CP. Stacey, *Canada and the Age of Conflict: A History of Canadian External Policies*. I: 1867-1921 (Toronto: Macmillan of Canada, 1977), and II: 1921-1948 (Toronto: University of Toronto Press, 1981).

²⁷⁷ D.W. Middlemiss, J.J. Sokolsky, *Canadian Defence: Decisions and Determinants* (Toronto: Harcourt Brace Jovanovich Canada Inc., 1989), 225.

often contradictory influences on defence policy are brought together and assessed, and authoritative decisions are rendered regarding their relative priority. Here, too, broad decisions on policy substance are translated into their budgetary and resource components and are then transformed into the particulars of military posture and deployment through the process of policy implementation.²⁷⁸

In conclusion, neoclassical realism is useful as an approach to studying foreign policy-making in that it allows one to take account, in a more systematic way than older, traditional approaches, the influence of political leaders, legislative processes, official advisors, experts (past and present), different interests, and the public in decision-making, while still recognizing the primacy of the external environment. It effectively and systematically reconciles domestic and external elements of foreign policy-making.

Limitations of the Framework

Today there is both criticism and praise of neoclassical realism. Onea asserts that “neoclassical realism’s extended theoretical family is simply too diverse to cohere. Future quarrels among the siblings are likely.”²⁷⁹ Neoclassical realism has been criticized for its lack of parsimony when compared to other realist schools²⁸⁰—although this weakness, it is argued, is “well compensated by explanatory accuracy in accounting for the world as it is, not as it should ideally be for the sake of theoretical convenience.”²⁸¹ The framework certainly has its limitations when applied to the case study. That the RCAF’s auxiliary pilots were unable to fly the Arrow

²⁷⁸ Ibid., 59.

²⁷⁹ Tudor Onea, review of *Neoclassical Realism, the State, and Foreign Policy*, ed. Steven E. Lobell, Norrin Ripsman, and Jeffrey W. Taliaferro, *International Journal* 64 (2008-2009): 855. Tudor Onea assesses the dominant strands of neoclassical realism in a subsequent 2012 article. See Onea, “Putting the ‘Classical’ in Neoclassical Realism,” 139-164.

²⁸⁰ Jeffrey W. Legro and Andrew Moravcsik, “Is Anybody Still a Realist?,” *International Security* 24, no. 2 (1999): 5-55.

²⁸¹ Onea, “Putting the ‘Classical’ in Neoclassical Realism,” 156.

because of its complex technology was a factor in the cancellation that is not explained by the theory. Nor does it explain the role of the aircraft lobbies in the US and UK that prevented foreign sales of the Arrow. But it helps provide a corrective to the simplistic treatments of the Diefenbaker government's handling of the complex and extremely difficult challenges posed by the Arrow program, which have largely written off its decision to cancel the aircraft as "abrupt"²⁸² and a travesty. What the archival record shows, and what neoclassical realism casts in sharper relief, is that the Diefenbaker government was influenced by domestic pressures pulling it in opposite directions on the Arrow program. These pressures were sustained and powerful but their impact did not extend to changing the basic requirement that the government fashion defence policy in terms of the imperatives of the international strategic environment.

²⁸² Middlemiss and Sokolsky, *Canadian Defence*, 63.

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