

NATO NUCLEAR BURDEN-SHARING POST-CRIMEA: WHAT CONSTITUTES “FREE-RIDING”?

A Dissertation Submitted to
The Faculty of
The Fletcher School of Law and Diplomacy
In Candidacy for the Degree of
Doctor of Philosophy

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June 2021



Figure 1: NATO Logo

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- ***The Challenges of NATO Nuclear Policy: Alliance Management Under the Trump Administration*, Working Paper 105** (Helsinki: Finnish Institute of International Affairs (FIIA), October 2018).
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- **"NATO Standardization: Political, Economic, and Military Issues for Congress,"** CRS Report to the House International Relations Committee (with Stanley R. Sloan), U.S. Government Printing Office (1977).
- **"The U.S. Response to Terrorism Against International Civil Aviation,"** *Orbis*, Vol. XIX, Winter 1976 (No. 4).

ABSTRACT

This dissertation focuses on a sub-set of nations in NATO – the 11 U.S. allies that are both equipped and eligible to assume operational roles under the Alliance’s “nuclear-sharing” arrangements, as constituted at present by the Dual Capable Aircraft (DCA) posture. The dissertation seeks to explain why 6 of the 11 have decided to opt-in on this mission, whereas 5 have elected to opt-out.

The dissertation examines this question in the context of the late Robert E. Osgood’s contention that an alliance is a “*latent war community*, based on general cooperation that goes beyond formal provisions and that the signatories must continually estimate in order to *preserve mutual confidence in each other’s fidelity to specified obligations* (emphasis added).”¹ The dissertation examines how this “latent war community,” the NATO Alliance, defines its members’ “specified obligations” to participate, or not, in DCA, and how the Alliance assesses its allies’ “fidelity” to these “obligations,” in terms of generally-accepted definitions in the literature of “burden-sharing” versus “free-riding.”

The dissertation employs within-case process-tracing to examine the decision-making of each of these 11 U.S. NATO allies. Using a multicausal framework, the dissertation compares these decisions across the 11 cases and posits hypotheses concerning common causal inferences. These hypotheses are then cross-checked statistically using fuzzy set Qualitative Comparative Analysis.

The dissertation draws two main conclusions. First, based on extensive interviews with senior officials from the Obama and Trump Administrations and NATO political and military leaders, it finds that those U.S. allies that elect to participate in DCA have not been pressured or coerced by the U.S. or NATO to do so. To the contrary, the interviews reveal that DCA is effectively exempted from NATO’s normal “fair burden-sharing and reasonable challenge” monitoring and enforcement mechanisms. Indeed, most senior U.S. national security officials cannot, it appears, identify which allies are in DCA and which are not. In effect, then, DCA can best be described as a “coalition of the willing” within NATO. With the notable exception of Germany, which is a special case due to its size, economic power and central geographic position in Europe, participating in this nuclear mission is widely regarded in Washington and in Brussels as voluntary or discretionary.

Second, the dissertation contends that rather than being pressured, individual Allies decide whether or not to participate in DCA based on their own sovereign calculation of specific countervailing considerations “pro” and “con.” The

¹ Robert E. Osgood, *Alliances and American Foreign Policy* (Washington, DC: Johns Hopkins University Press, 1968), 19.

dissertation identifies five such factors. On the “con” side, they are extra cost and domestic opposition to nuclear weapons. On the “pro” side, they are balance of threat, nature and degree of their transatlantic alignment, and status or ranking within NATO.

Of the six U.S. NATO allies assumed in this dissertation to be DCA participants, five (Belgium, Germany, Greece, Italy and the Netherlands) are consistent in placing high value on their status/ranking within NATO (NR), in maintaining a transatlantic alignment in which they “hedge” their dependence on the United States by playing strong roles within the EU, and in viewing the Russian threat in milder degrees, mainly because they are not convinced that its intentions are offensive vis-à-vis NATO allies themselves. In these five nations there is a high degree of domestic opposition to nuclear weapons, but the extra costs are low relative to their mid-range defense budgets. In addition to these considerations, Germany’s participation in DCA is also uniquely a function of its position as the “lynchpin” of the European DCA posture, which puts it on the receiving end of strong pressure from the United States.

Of the five U.S. NATO allies who are DCA non-participants, four (Canada, Denmark, Norway and Portugal) have all five factors in common. They each:

1. Would face high degrees of extra costs to join DCA relative to their generally smaller (in the aggregate) defense budgets;
2. Have high degrees of domestic opposition to nuclear weapons;
3. Perceive the threat from Russia as only low-to-medium;
4. Maintain close bilateral alignments with the United States; and
5. Are able to utilize other institutional mechanisms to establish their ranking and status within NATO.

For specific reasons identified in the dissertation, Turkey and Spain are outliers in terms of the common factors identified in the two groupings.

ACKNOWLEDGEMENTS

This dissertation is dedicated to three professors whose mentoring set me on course for a successful and rewarding 45-year U.S. Government career dealing with international security affairs: **Dr. Robert Pfaltzgraff** (Fletcher School of Law & Diplomacy, Tufts University), the late **Dr. Robert Osgood** (SAIS, Johns Hopkins University), and the late **Ambassador Foy Kohler** (CSIA, University of Miami (Florida)).

LIST OF ILLUSTRATIONS

List of Figures

1. NATO Logo, NATO, accessed April 7, 2021. https://www.nato.int .	i
2. North Atlantic Council in Session, NATO, accessed April 7, 2021. https://www.nato.int .	12
3. Percentage Change in Non-US NATO Defense Spending, 2014-2021, NATO, <i>Secretary General's Annual Report 2020</i> , accessed April 7, 2021. https://www.nato.int .	13
4. NATO Enhanced Forward Presence Deployments, NATO, accessed April 7, 2021. https://www.nato.int .	15
5. DCA F-16 After Refueling, NATO, accessed April 7, 2021. https://www.nato.int .	16
6. U.S. Army 280 mm Atomic Cannon – 1950s, National Nuclear Security Agency, Nevada Site Office Photo Office, Public Domain #CIC0315864.	19
7. First Meeting of 7-Nation NPG – April 7, 1967, NATO, <i>Nuclear Planning Group: 50th Anniversary of the First Meeting of the NPG</i> , 2017, cover photo.	37
8. 3 C's Variable and Allied Rankings, By Author and Jordan Becker, In "Defense Planning in the Fog of Peace: The Transatlantic Currency Conversion Conundrum," <i>European Security</i> , 29:2 (2020), 135. Originally published in: Jordan Becker, "Burden Sharing, Burden Shifting and Strategy in the Nordic States," SSRN electronic journal. https://www.ssm.com/abstract+3165979 .	57
9. Allied Rankings on 2% and 20% Goals, NATO (<i>Secretary General's Annual Report for 2020</i> , 50), accessed April 7, 2021, https://www.nato.int .	58
10. NATO Defense Planning Process, NATO, accessed April 7, 2021 https://www.nato.int .	60
11. Resolute Support Mission, NATO, accessed April 7, 2021, https://www.nato.int .	66
12. Kosovo Mission, NATO, accessed April 7, 2021, https://www.nato.int .	66
13. IVs v. DV Summary, By Author	80
14. B61 Nuclear Bomb, U.S. Air Force, http://www.hill.af.mil/shared/media/photodb/photos/601010-F-0000H-002.jpg .	81
15. Nuclear Attitudes in Europe, European Council on Foreign Relations, 2019.	91
16. ICAN Polling on Nuclear F-35, ICAN, https://www.ican.org .	92
17. EU CSDP Missions and Activities, EU, https://www.europa.eu .	106
18. IV/DV Multicausal Framework, By Author.	232

LIST OF TABLES

1. Down-Selection for Case Studies. By Author.	6
2. NATO Burden-Sharing Metrics: “Inputs” and “Outputs.” By Author and Jordan Becker, In “Defense Planning in the Fog of Peace: The Transatlantic Currency Conversion Conundrum,” <i>European Security</i> , 29:2 (2020), 129.	56
3. NATO Strategic-Level Joint Operations Planning Process, NATO (SHAPE, <i>ACO Civil-Military Cooperation Functional Planning Guide</i> , SH/OPI/J9/PB/17-315278, February 7, 2017, 3).	63
4. U.S. Policy Concerning Allies’ DCA Participation, By Author.	69
5. Saliency of German DCA Participation, By Author.	77
6. Importance of Parallel Arms Control Track, By Author.	78
7. Saliency of IVs with Regard to the DV, By Author.	80
8. Summary of Extra DCA Costs, By Author.	86
9. Allied Alignment, By Author.	96
10. Consultative Venues at NATO, By Author.	99
11. GDP and Population, By Author.	100
12. Size of Military, By Author.	101
13. Geographic Proximity to Russia, By Author.	102
14. Defense Spending as % GDP, By Author.	103
15. Belgium: Summary of IV Interactions, By Author.	126
16. Canada: Summary of IV Interactions, By Author.	135
17. Denmark: Summary of IV Interactions, By Author.	151
18. Germany: Summary of IV Interactions, By Author.	177
19. Greece: Summary of IV Interactions, By Author.	185
20. Italy: Summary of IV Interactions, By Author.	194
21. Netherlands: Summary of IV Interactions, By Author.	203
22. Norway: Summary of IV Interactions, By Author.	208
23. Portugal: Summary of IV Interactions, By Author.	215
24. Spain: Summary of IV Interactions, By Author.	221
25. Turkey: Summary of IV Interactions, By Author.	231
26. IV Scores and DV Outcomes, By Author.	233
27. Pathway to Opting-In, By Author.	234
28. Pathway to Opting-Out, By Author.	235
29. QCA Correlation Coefficients, By Author.	236

PREFACE

A Note on Classification and Sources

This dissertation is entirely unclassified.

As a former U.S. official who held a security clearance and is hence still bound by its accompanying obligations, the author of this dissertation neither confirms nor denies any publication's or individual's assertions cited herein as to the locations and numbers of B61 bombs in any ally's territory. Unless otherwise specified, the contents of this dissertation are derived solely from publicly available information, including content sourced to NATO and the U.S. Government.²

All interviews were conducted under "Chatham House" rules: individuals could be quoted but their views could not be directly attributed to them.³

Several photos, graphics and figures contained herein are credited and sourced to NATO. NATO's requirements for the external use of NATO content, updated on January 27, 2021, provide that "all content taken from NATO and republished" that is "clearly credited or sourced to NATO" is "provided, free of charge, for use in objective and balanced content, even if at times the end product may be critical of NATO."⁴ No use of NATO content in this dissertation is intended in any respect to "defame NATO or its member countries." NATO-sourced photos and articles are "released under the legally recognized terms of 'Fair Use' to members of the press, academia, non-profits and the general republic."

² See Appendix 8 for details.

³ For the index of codes that apply to footnotes based on interviews, see Appendix 1.

⁴ NATO website, accessed on April 7, 2021. <https://www.nato.int>.

List of Acronyms

ABM	Anti-Ballistic Missile
ACT	Allied Command Transformation
ADM	Atomic Demolition Mine
ALCM	Air-Launched Cruise Missile
AIV	Adviesesraad Internationale Vraagstukken
A2/AD	Anti-Access/Area Denial
BAP	Baltic Air Policing
BCT	Brigade Combat Team
BMEWS	Ballistic Missile Early Warning System
BTG	Battalion Tactical Group
CARD	Coordinated Annual Review on Defense
CHODS	Chiefs and Heads of Defense Staffs
CJSOR	Combined Joint Statement of Requirements
CMC	Chairman, Military Committee
CONOPS	Concept of Operations
CRS	Congressional Research Office
CSDP	Common Security and Defense Policy
CT	Capability Target
CTBT	Comprehensive Test Ban Treaty
C2	Command and Control
C2D2	Continuous Capability Development and Delivery
DCA	Dual Capable Aircraft
DCI	Director of Central Intelligence
DDPR	Deterrence and Defense Posture Review
DIP	Defense Investment Pledge
DOD	Department of Defense
DV	Dependent Variable
ECFR	European Council on Foreign Relations
EDC	European Defense Community
eFP	Enhanced Forward Presence
ERI/EDI	Enhanced Readiness/Defense Initiative
EU	European Union
EUCOM	European Command
FIG	France-Italy-Germany
FIIA	Finnish Institute of International Affairs
FRUS	<i>Foreign Relations of the United States</i>
GAO	Government Accountability Office

GDP	Gross Domestic Product
GFMMC	Global Force Management and Manpower Conference
GLCM	Ground-Launched Cruise Missile
GPG	General Political Guidelines
GRP	Graduated Response Plan
HLG	High-Level Group
HoS/G	Heads of State and Government
HQ	Headquarters
ICAN	International Campaign to Abolish Nuclear Weapons
ICBM	Intercontinental-Range Ballistic Missile
IISS	International Institute for Strategic Studies
INF	Intermediate Nuclear Forces
IR	International Relations
IRBM	Intermediate-Range Ballistic Missile
IV	Independent Variable
JCS	Joint Chiefs of Staff
JFC	Joint Forces Command
JISD	Joint Intelligence and Security Division
JTA	Joint Threat Assessment
KFOR	Kosovo Force
LTDP	Long-Term Defense Program
MAD	Mutual Assured Destruction
MCR	Minimum Capability Requirement
MB	Military Budget
MC	Military Committee
MLF	Multi-Lateral Force
MMRBM	Mobile Medium-Range Ballistic Missile
MRBM	Medium-Range Ballistic Missile
MSC	Munich Security Conference
MUNSS	Munitions Support Squadrons
NAC	North Atlantic Council
NATO	North Atlantic Treaty Organization
NCS	NATO Command Structure
NDPP	NATO Defense Planning Process
NDS	National Defense Strategy
New START	New Strategic Arms Limitation Treaty
NMI	NATO Mission Iraq
NMR	NATO Military Representative
NNWS	Non-Nuclear Weapons State

NORAD	North American Air Defense Command
NPG	Nuclear Planning Group
NPR	Nuclear Posture Review
NPT	Non-Proliferation Treaty
NRC	NATO-Russia Council
NRF	NATO Response Force
NSC	National Security Council
NSIP	NATO Security Investment Program
NSNW	Non-Strategic Nuclear Weapons
NTB	Nuclear Ban treaty
NTI	Nuclear Threat Initiative
NWS	Nuclear Weapons State
OPLAN	Operations Plan
O&M	Operations and Maintenance
PAL	Permissive Action Link
PESCO	Permanent Structured Cooperation
PPG	Provisional Political Guidelines
PNI	Presidential Nuclear Initiatives
P3	Permanent 3 UNSC Members (US, UK, FR)
P5	P3 plus Russia and China
QCA	Qualitative Comparative Analysis
QDR	Quadrennial Defense Review
QRA	Quick Reaction Alert
REFORGER	Return of Forces to Europe
RSM	Resolute Support Mission
RTD&E	Research, Test, Development & Evaluation
RUSI	Royal United Services Institute
SACEUR	Supreme Allied Commander, Europe
SACLANT	Supreme Allied Commander, Atlantic
SC	Strategic Concept
SDI	Strategic Defense Initiative
SDOB	Secretary's Defense Orders Book
SHAPE	Supreme Headquarters, Allied Powers Europe
SNOWCAT	Support for Nuclear Operations with Conventional Air Tactics
SORT	Strategic Offensive Arms Treaty
SRA	Suitability and Risk Assessment
STOVL	Short Take-Off/Vertical Landing
SYG	Secretary General
TNF	Theater Nuclear Forces

TTX
UNSCR
VJTF

Table-Top Training Exercises
United Nations Security Council Resolution
Very-High Readiness Joint Task Force

Table of Contents

Curriculum Vitae	ii
Abstract	iv
Acknowledgements	vi
List of Illustrations	vii
Preface: Note on Classification and Sources	ix
List of Acronyms	x
 Chapter I: Introduction	 1
1.0 Statement of the Research Question	1
1.1 Selection Criteria for Case Studies	4
1.2 Organization of the Dissertation	7
 Chapter 2: NATO Deterrence and Defense Enhancements Post-Crimea	 9
2.0 Political Responses	12
2.1 Conventional Defense Responses	14
2.2 Nuclear Posture Enhancements	16
 Chapter 3: Antecedents of NATO Nuclear Burden-Sharing	 19
3.0 Early Cold War Period (1949-1954)	19
3.1 Eisenhower “New Look” (1954-1957)	22
3.2 NATO Atomic Stockpile and IRBM Era (1957-1961)	24
3.3 MLF and the NPG Era (1961-1967)	33
3.4 INF “Double Track” Era (1977-1989)	40
3.5 1991 PNIs and Post-Cold War Era (1991-2014)	44
3.6 Recapitulation	48
 Chapter 4: Baseline for Assessing NATO Burden-Sharing	 51
4.0 Burden-Sharing in Practice at NATO	51
4.1 Yardsticks for Measuring Burden-Sharing: The “3 C’s”	55
4.1.0 Cash	57
4.1.1 Capabilities	58
4.1.2 Contributions	62
4.2 Exemption of DCA from the 3 C’s: Nuclear Realities	67
 Chapter 5: Causal Inferences	 79
5.0 Relationship of the IVs to the DV	79
5.1 Elaboration of the IVs	81
5.1.1 Extra Cost	82
5.1.2 Domestic Opposition to Nuclear Weapons	86

5.1.3 Balance of Threat	92
5.0.4 Nature of Transatlantic Alignment	95
5.0.5 Ranking/Status within NATO	97
5.1 Check for Endogeneity or Omitted Variables	99
5.1.1 Ruling party orientation	99
5.1.2 Strength Size (GDP and Population)	100
5.1.3 Size (Armed Forces)	101
5.1.4 Geography	102
5.1.5 Level of Military Spending	102
5.1.6 EU “Strategic Autonomy”	102
Chapter 6: Case Studies	114
6.0 Belgium	114
6.1 Canada	127
6.2 Denmark	136
6.3 Germany	152
6.4 Greece	178
6.5 Italy	186
6.6 Netherlands	195
6.7 Norway	204
6.8 Portugal	209
6.9 Spain	216
6.10 Turkey	222
Chapter 7: Conclusions	232
7.0 Pathway to Opting-In	234
7.1 Pathway to Opting-Out	235
7.2 Cross-Check with Fuzzy Set QCA	236
7.3 Implications for IR Theory	237
7.4 Implications for U.S. Policy	246
7.5 A Concluding Observation	252
Bibliography	254
Appendix 1: List of Officials Interviewed	267
Appendix 2: Summary of Interview Responses	269
Appendix 3: Interview Questions for NATO Officials	272
Appendix 4: Interview Questions for NATO Officials	275
Appendix 5: Interview Questions for Allied Officials	279
Appendix 6: Participation in NATO Operations and Missions	282
Appendix 7: Modern Fighter Inventories of the 11 Allies	283
Appendix 8: Classification and Sources	285

CHAPTER ONE

INTRODUCTION

“In the quest for security, alliances may have to be made;
once made, they have to be managed.”
- Kenneth Waltz¹

“As long as nuclear weapons exist, NATO will remain a nuclear Alliance.”
- 2019 NATO London Summit Declaration²

1.0. Statement of the Research Question

In their widely-employed International Relations (IR) textbook, *Contending Theories of International Relations: A Comprehensive Survey*, Robert L. Pfaltzgraff, Jr. and James E. Dougherty observe: “Because of the historical importance of alliances in the international system ... such collaborative efforts have been the object of scholarly investigation, especially by ... political realists ... but also by writers concerned more specifically with the dynamics and operation of alliances.”³ Indeed, there is a rich literature within the IR discipline concerning alliance behavior as it relates to “*burden sharing*” and “*free-riding*.”⁴

There is also a rich literature within the IR discipline examining NATO’s *nuclear* dimension. A “thematic bibliography” published by NATO cataloguing books and

¹ Waltz, Kenneth, *Theory of International Politics* (Reading, MA: Addison-Wesley, 1979), 166.

² NATO, “London Declaration Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council in London, 3-4 December 2019,” Paragraph 4.

³ James E. Dougherty and Robert L. Pfaltzgraff, Jr., *Contending Theories of International Relations: A Comprehensive Survey* (New York: Longman, 2001), 533.

⁴ Cimbala and Forster define “burden-sharing” as “the distribution of costs and risks among members of a group in the process of accomplishing a goal.” (Stephen J. Cimbala and Peter K. Forster, *The US, NATO and Military Burden-Sharing* (New York: Routledge, 2005), 1). A corollary of “burden-sharing” is “buck passing” or “burden-shifting,” which Wallace J. Thies has defined as “maneuvering for advantage,” in that “NATO members seek to convince their allies to accept burdens that they themselves prefer to avoid but cannot openly shirk for fear their example will be emulated by their partners, thereby jeopardizing the alliance that all value highly.” (Wallace J. Thies, *Friendly Rivals: Bargaining and Burden-Shifting in NATO* (New York: Routledge, 2003), 8). Another corollary of “burden-sharing” – one that is focused more on outcome and less on the actor’s intentions – is “free-riding.” RAND has defined “free-riding” as “enjoying a public good without paying for it.” (King Mallory, Gene Germanovich, Jonathan Welburn, and Troy Smith, *Burdensharing and its Discontents: Understanding and Optimizing Allied Contributions to the Collective Defense* (Santa Monica: RAND, 2020), 19).

articles related to NATO nuclear matters that have been published between 2000-2016 contains over 150 citations.⁵ For example, many scholarly articles and books have been published on the subject of whether *any* U.S. B61 nuclear bombs should remain forward-deployed in Europe or withdrawn to the United States.⁶ Another large proportion of the IR literature on NATO nuclear issues has focused on the issue of the strategic *quid pro quo* relationship between the United States and its allies, *in their aggregate*, wherein in exchange for the former's extension of a nuclear security guarantee to all Members of the alliance, the latter have agreed, *collectively*, to take on certain obligations with regard to participating directly in, or at least supporting politically, various "nuclear-sharing" arrangements that have been considered and/or agreed by NATO over the years. Finally, there is a rich literature that examines the decision-making of *individual* NATO allies in different eras with regards to specific nuclear issues.

However, the *division of burdens* between allies as it relates to the Alliance's "nuclear-sharing" arrangements has not been systematically analyzed. As Paul Shulte has noted: "No concerted effort has been made to explain exactly how NATO governments see the role of Non-Strategic Nuclear Weapons in underpinning the Alliance nuclear posture *and in maximizing Allies' involvement (or, from an anti-nuclear perspective, complicity) in nuclear preparation and planning*" (emphasis added).⁷ This dissertation seeks to fill that void.

The dissertation focuses on a complete sub-set of U.S. allies – the 11 allies that are both equipped and eligible to assume roles under the Alliance's "nuclear-sharing" arrangements, as constituted at present by the Dual Capable Aircraft (DCA) posture – and examines, in their inter-relationship, their decision-making

⁵ NATO/Public Diplomacy Division, *Nuclear Deterrence in the 21st Century: Thematic Bibliography No. 2/16* (Brussels: NATO Multimedia Library, 2016).

⁶ See, for example: David S. Yost, "The U.S. Debate on NATO Nuclear Deterrence," RUSI, 2011; Karl-Heinz Kamp and Major General Robertus C.N. Remkes, "Options for Nuclear Sharing Arrangements," NTI, 2011; Stefanie von Hlatky and Andreas Wenger, eds., *The Future of Extended Deterrence: the United States, NATO, and Beyond*, Georgetown, 2015; Malcolm Chalmers and Simon Lunn, "NATO's Tactical Nuclear Dilemma," RUSI, 2010; Oliver Meier, "Addressing Non-Strategic Nuclear Forces: Options Paper for the Euro-Atlantic Security Initiative," Arms Control Association, 2011; Paolo Foradori, ed., *Tactical Nuclear Weapons and Euro-Atlantic Security*, Routledge, 2013; Tom Sauer and Bob van der Zwaan, "U.S. Tactical Nuclear Weapons in Europe After NATO's Lisbon Summit: Why Their Withdrawal is Desirable and Feasible," Harvard Kennedy School, 2011; Michael Ruhle, "NATO's Nuclear Deterrence: More Important Yet More Contested," NATO Defense College, 2019; and Edmond Seay, "NATO's Incredible Nuclear Strategy: Why U.S. Weapons in Europe Deter No One," Arms Control Association, 2011.

⁷ Paul Schulte, *NATO's Protracted Debate Over Nuclear Weapons* (Washington, DC: George Washington University Press, 2015), 114-115.

regarding whether to participate or not.⁸ **In short, the dissertation seeks to answer the question as to why some U.S. allies with modern fighter aircraft elect to participate in DCA when others who are also equipped and eligible to do so do not.**

Is the decision to participate in DCA by those allies who have chosen to do so due to “external” U.S. burden-sharing pressure? Are their decisions as to whether to opt-in or opt-out subject to the yardsticks for assessing and enforcing “fair burden-sharing” typically applied in other, non-nuclear, domains at NATO? Or must one look elsewhere to explain each eligible and capable ally’s decisions in this regard?

This dissertation examines these questions in the context of the late Robert E. Osgood’s contention that an alliance is a “*latent war community*, based on general cooperation that goes beyond formal provisions and that the signatories must continually estimate in order to *preserve mutual confidence in each other’s fidelity to specified obligations* (emphasis added).”⁹ In line with this definition, the dissertation examines in detail how this specific “latent war community,” the NATO alliance, defines its members’ “specified obligations” to participate, or not, in its nuclear-sharing arrangements, and how the Alliance assesses and reacts to its allies’ “fidelity” to these obligations, in terms of generally-accepted definitions in the IR literature of “burden-sharing” versus “free-riding.” The dissertation employs within-case process-tracing to examine the decision each of 11 U.S. NATO allies has taken with regards to DCA participation.¹⁰ Using a multicausal framework, the dissertation compares these decisions across the 11 cases and posits hypotheses concerning common causal inferences. These hypotheses are then cross-checked statistically using fuzzy set Qualitative Comparative Analysis (QCA).

⁸ “Dual capable” refers to modern fighter aircraft that are equipped to deliver either conventional or tactical nuclear weapons and whose aircrews are trained and certified as proficient in the delivery of either type of ordnance. The DCA-assigned nuclear weapons are the U.S. B61-3 and -4 gravity bombs, with these “non-strategic” bombs due to be replaced in coming years with the modernized B61-12 bomb. According to the Pentagon, “Non-strategic or tactical nuclear weapons refer to nuclear weapons designed to be used on a battlefield in military situations, as opposed to strategic nuclear weapons, which are designed to be used against enemy cities, factories, and other larger-area targets to damage the enemy’s ability to wage war.” (Department of Defense, *Nuclear Matters Handbook*, 2016, 17; www.acq.osd.mil/ncbdp/nm/NMHB/index.htm.)

⁹ Robert E. Osgood, *Alliances and American Foreign Policy* (Washington, DC: Johns Hopkins University Press, 1968), 19. Personal note: This publication was my textbook when I studied under Professor Osgood at Johns Hopkins/SAIS in 1971.

¹⁰ Andrew Bennett and Alexander George define “process tracing” as the use of “histories, archival documents, interview transcripts, and other sources to see whether the causal process a theory hypothesizes or implies in a case is in fact evident in the sequence and values of the intervening variables in that case.” (Alexander L. George and Andrew Bennett, *Case Studies and Theory Development in the Social Sciences* (Cambridge: MIT Press, 2005), 6).

2014-2021 is chosen as the timeframe for this examination because Russia's illegal annexation of Crimea and its military intervention in eastern Ukraine in 2014 fundamentally altered NATO's deterrence and defense posture and continues to shape it today. While NATO has certainly not returned to a "Cold War footing," its political, conventional defense, and nuclear policy and posture decisions since 2014 are consistent with Osgood's notion of the Alliance as a "latent war community." To be sure, seven years after Crimea NATO is still operating under a Strategic Concept, the highest level policy document that guides the Alliance, that was agreed before Crimea, in 2010.¹¹ The 2010 Strategic Concept only addressed nuclear issues in a very general fashion, but these gaps were filled in two years later when NATO Heads of State and Government adopted the Deterrence and Defense Posture Review (DDPR) at the 2012 Chicago Summit.¹² Notably, there had been, until quite recently, a consensus among NATO allies that the 2010 Strategic Concept and the 2012 DDPR remain generally valid in the dramatically-altered post-Crimea security environment.¹³ Hence the proposed dissertation's 7 year timeframe encompasses a period when NATO has been guided by the same overarching policy document. In terms of U.S. politics, the timeframe spans the last 2½ years of the two-term administration of President Barack Obama, the 4 years of President Donald Trump, and the first months of the new Biden Administration, up to and including his first NATO Summit as President on June 14.

2.0. Selection Criteria for Case Studies

The 11 U.S. allies studied are those members of NATO that meet *three* criteria:

- (1) they are Non-Nuclear Weapons States (NNWS), as defined by the Nuclear Non-Proliferation Treaty (NPT);¹⁴

¹¹ NATO, *Active Engagement, Modern Defense Active Engagement, Modern Defense: Strategic Concept for the Defense and Security of the Members of the North Atlantic Treaty Organization Adopted by Heads of State and Government at the NATO Summit in Lisbon, 19-20 November 2010* (Brussels: NATO Public Diplomacy Division, 2010).

¹² NATO, *NATO Deterrence and Defense Posture Review (DDPR)*, May 20, 2012.

¹³ On February 17, 2021, on the margins of the first NATO Defense Ministerial since Biden's inauguration, Secretary General Stoltenberg officially announced the initiation of a new process to update the 2010 Strategic Concept. Previously, allies had worried that any such effort while Donald Trump remained in office would prove contentious and divisive, and perhaps futile in terms of reaching consensus.

¹⁴ The United States and NATO have made clear since the NPT was agreed fifty years ago that NATO's "nuclear-sharing" arrangements with NNWS allies are consistent with Article I of the Treaty, since the bombs remain in the possession of the U.S. until and unless dispersed on Presidential authority to the designated allies in time of war. The United States also contends that the Soviet Union explicitly accepted this interpretation at the time it agreed to the NPT. See:

- (2) they have modern air forces capable of carrying and delivering the U.S. B-61 nuclear bomb (i.e., 4th or 5th generation fighters); and
- (3) they are not deemed “ineligible” for participating in this mission under policy constraints, known as the “3 No’s”, agreed by NATO after the Cold War as reassurance to Russia after the first round of post-Cold War enlargement.¹⁵ As one senior Obama official interviewed noted in explaining this limitation: “The current allocation of [nuclear] roles within the Alliance has its basis in a time now long past but there is no other politically-viable basis. No one within the Alliance is prepared to shift the DCA mission onto the newest members of the Alliance.”¹⁶

The two U.S. NATO allies who are Nuclear Weapons States (NWS) as defined by the NPT, France and the UK, possess their own independent nuclear weapons and hence more than “carry their weight” in terms of NATO’s overall nuclear deterrent posture. They are, by definition, not “free-riders,” and hence are not selected here for case study. Indeed, all NATO allies have agreed that:

The independent nuclear forces of the United Kingdom and France have a deterrent role of their own and contribute significantly to the overall security of the Alliance. These allies’ separate centers of decision-making contribute to deterrence by complicating the calculations of potential adversaries.”¹⁷

As noted in this dissertation’s introductory note on classification, the 11 U.S. allies that will be examined in detail include, according to non-governmental open sources, six who are currently DCA participants (Germany, Netherlands, Belgium, Italy, Greece, and Turkey) and five who are not (Denmark, Norway, Spain, Portugal and Canada).¹⁸ The “decision-tree” governing the case study selection is shown below. The eleven allies chosen for analysis are those who are marked “yes” for all three criteria, as highlighted in yellow.

William Alberque, “The NPT and the Origins of NATO’s Nuclear-Sharing Arrangements,” *Proliferation Papers*, No. 57 (Paris: Institut Français des Relations Internationales, February 2017).

¹⁵ The “3 No’s” policy dates back to the NATO Foreign Ministers meeting in Brussels on December 10, 1996 – three years before the first post-Cold War accessions of “new members” by nations formerly belonging to the Warsaw Pact. The Foreign Ministerial statement read in full: “Enlarging the Alliance will not require a change in NATO’s current nuclear posture and therefore, NATO countries have *no intention, no plan, and no reason* to deploy nuclear weapons on the territory of new members” (emphasis added). The “3 No’s” were subsequently incorporated verbatim into the 1997 NATO-Russia Founding Act, a document which, Russia’s aggressive behavior since 2014 notwithstanding, NATO has not renounced.

¹⁶ Interview, US1.

¹⁷ NATO, *NATO Brussels Summit Declaration, Agreed by NATO’s Heads of State and Government at the Brussels Summit*, July 11-12, 2018, Paragraph 35.

¹⁸ See “A Note on Classification” at Appendix 8.

U.S. Ally	NNWS?	Modern Fighters?¹⁹	Eligible under 3 No's?
Albania	Yes	No	No
Belgium	Yes	Yes (F-16/F-35)	Yes
Bulgaria	Yes	No	No
Canada	Yes	Yes (F/A-18)	Yes
Croatia	Yes	No	No
Czech Rep.	Yes	No	No
Denmark	Yes	Yes (F-16/F-35)	Yes
Estonia	Yes	No	No
France	No	Yes	Yes
Germany	Yes	Yes (Tornado)	Yes
Greece	Yes	Yes (F-16)	Yes
Hungary	Yes	No	No
Iceland	Yes	No ²⁰	Yes
Italy	Yes	Yes (Tornado/F-35)	Yes
Latvia	Yes	No	No
Lithuania	Yes	No	No
Luxembourg	Yes	No ²¹	Yes
Montenegro	Yes	No	No
Netherlands	Yes	Yes (F-16/F-35)	Yes
North Macedonia	Yes	No	No
Norway	Yes	Yes (F-16/F-35)	Yes
Poland	Yes	Yes	No
Portugal	Yes	Yes (F-16)	Yes
Romania	Yes	No	No
Slovakia	Yes	No	No
Slovenia	Yes	No	No
Spain	Yes	Yes (F-18)	Yes
Turkey	Yes	Yes (F-16/F-35(?)) ²²	Yes
United Kingdom	No	Yes	No

Table 1: Down-Selection for Case Studies

There is no possibility of sampling error in the proposed dissertation because the analysis begins with the entire population of U.S. allies in NATO (29) and narrows the case studies to the *full* universe of those 11 who are “eligible” to participate

¹⁹ See Appendix 7 for more detail.

²⁰ Iceland has no military forces.

²¹ Luxembourg has no air force or navy and only a small (600-man) army.

²² Turkey has been suspended by the United States from the F-35 acquisition program due to its purchase of the Russian S-400 anti-aircraft missile system, but bilateral discussions on a possible resolution are still taking place. See Chapter 6 for discussion of this issue.

in DCA in accordance with the aforementioned criteria. These 11 allies constitute the *complete* population of allies who could reasonably be assessed in terms of “burden-sharing” versus “free-riding” vis-à-vis the DCA mission, and hence there is no possible element of bias that could be at play in their selection.

1.2. Organization of the Dissertation

As a stage-setter to this examination, the dissertation in Chapter 2 outlines the significant enhancements in its deterrence and defense posture and policy agreed by NATO since Russia’s intervention in Ukraine in 2014.

To examine whether there are continuities in allies’ current decision-making on DCA with their decisions concerning prior nuclear-sharing arrangements, the dissertation in Chapter 3 examines the antecedents to today’s NATO nuclear posture. Six time periods are studied:

1. the early Cold War period (1949-1954),
2. the Eisenhower “New Look” years (1954-1957),
3. the NATO “atomic stockpile” and Intermediate-Range Ballistic Missiles (IRBM) decision years (1957-1961),
4. the unsuccessful quest for a Multi-Lateral Nuclear Force (MLF) and the adoption of the Nuclear Planning Group (NPG) as a fall-back solution (1961-1967),
5. the Intermediate Nuclear Forces (INF) “double track” era (1977-1989), and
6. the 1991 Bush-Gorbachev Presidential Nuclear Initiatives (PNI) and initial post-Cold War era (1991-2014).

In Chapter 4, the dissertation analyses how burden-sharing is measured and promoted at NATO in the post-Crimea (i.e., post-2014) era consistent with Secretary General (SYG) Jens Stoltenberg’s formulation of what he has termed the “3 C’s” (cash, capabilities and contributions). Building on extensive interviews with former Trump and Obama senior officials, senior NATO political and military leaders, and allied ambassadors, the Chapter closes with a hypothesis as to why DCA has been *excluded* from this methodology.

In Chapter 5, the dissertation identifies five Independent Variables (IVs) that it contends principally determine an ally’s decisions regarding DCA participation (the Dependent Variable (DV)):

6. Extra cost
7. Domestic opposition to nuclear weapons
8. Balance of threat
9. Nature of its transatlantic alignment
10. Importance attached to ranking/status within NATO.

It also conducts a check for endogeneity and identifies six factors that it does *not* contend are determinant in whether an eligible and capable ally decides to participate in DCA:

1. Political orientation of government
2. Size (GDP and population)
3. Size of armed forces
4. Geographic proximity to Russia
5. Level of defense spending (aggregate and % of GDP).
6. European Union "strategic autonomy" as an alternative security paradigm.

In Chapter 6, the dissertation examines these 11 cases, assessing empirically the factors that have led each of the 11 to make the decisions they have with regards to participating in DCA.

In Chapter 7, conclusions are presented. These causal inferences are cross-checked statistically using fuzzy set Qualitative Comparative Analysis. Next, the implications for IR theory are assessed, including for such schools of thought as collective action theory, balance of threat, alliance politics, transatlantic alignment, and domestic constraints. Finally, the implications of these conclusions for U.S. policy under the new Biden Administration are advanced.

CHAPTER TWO

NATO DETERRENCE AND DEFENSE ENHANCEMENTS POST-CRIMEA

Russia's illegal annexation of Crimea in 2014 and its military intervention in eastern Ukraine ever since, together with the rising power of China,¹ have been catalysts for what the IR community and national security practitioners alike regard as the "return of great power geopolitics." For example, Hal Brands and Evan Braden Montgomery have written: "Unlike in the 1990s or 2000s, when America's main opponents were non-state actors or rogue states, Washington's chief competitors now include resurgent or rising great powers – near-peer competitors, in Pentagon parlance – that pose a serious threat to U.S. military primacy and could seriously challenge American alliance commitments in key regions."² In the *2018 National Defense Strategy*, then-Secretary of Defense James Mattis agreed, stating: "The central challenge to U.S. prosperity and security is the re-emergence of long-term, strategic competition by what the National Security Strategy classifies as revisionist powers," adding: "It is increasingly clear that China and Russia want to shape a world consistent with their authoritarian model – gaining veto authority over other nations' economic, diplomatic, and security decisions."³

¹ At the meeting of NATO Heads of State and Government in London on December 3-4, 2019, the Alliance for the first time in its history collectively agreed that "China's growing influence and international policies present both opportunities and challenges that we need to address together as an Alliance." ("London Declaration," para. 6). That said, NATO has yet to agree on a common strategy for dealing with China, including how the Alliance's nuclear deterrent forces might relate to meeting these "opportunities and challenges." In its November 25, 2020 Report on "NATO 2030," the "Reflection Group" appointed by Secretary General Stoltenberg to set the stage for the negotiation of an updated NATO Strategic Concept called for such an assessment, focusing on China's "technological development" and "activities that could impact collective defense, military readiness or resilience in the Supreme Allied Commander Europe's (SACEUR) Area of Responsibility" (NATO, "NATO 2030: United for a New Era," Report of the NATO Reflection Group, November 25, 2020, 12). For an insightful example of what such a strategy might entail, see: Robert D. Blackwill and Philip Zelikow, "The United States, China, and Taiwan: A Strategy to Prevent War," Council Special Report No. 90, *Council on Foreign Relations*, February 2021. For a more "hawkish" perspective, see: H.R. McMaster, "What China Wants," *The Atlantic*, May 2020, 69-74.

² Hal Brands and Evan Braden Montgomery, "One War is Not Enough: Strategic and Force Planning for Great Power Competition," *Texas National Security Review*, Vol. 3, Issue 2 (Spring 2020), 3. As another example, Thomas Wright maintains that "[i]n recent years, instead of convergence we had divergence. Authoritarian leaders in Russia and China worried that the liberal world order would undermine their hold on power, and they coveted spheres of influence in their regions." (*All Measures Short of War: The Contest for the 21st Century and the Future of American Power* (New Haven: Yale University Press, 2017).

³ *Summary of the 2018 National Defense Strategy of the United States of America*. Department of Defense, January 2018, 2.

In July 2020, Mattis' successor, Mark Esper, revised this formulation to make clear that as between these two "top strategic competitors," China ranked first, then Russia.⁴ In this communication to the Department marking the end of his first year in office, Secretary Esper directed the military services to make China "the pacing threat in all our schools, programs and training." Biden's Secretary of Defense, Llyod Austin, agreed, also identifying China in a March 4, 2021 guidance memo to the military services as "the pacing threat." At his first ministerial with NATO, though, Austin mentioned Russia first in enumerating the multiple threats and challenges facing the Alliance, citing its "destabilizing behavior."⁵ This assessment of the Russian threat was followed in a more formal fashion when, in March, the new Administration released an "interim" national security strategy, which concludes:

Russia remains determined to enhance its global influence and play a disruptive role on the world stage. Both Beijing and Moscow have invested heavily in efforts meant to check U.S. strengths and prevent us from defending our interests and allies around the world.⁶

In 2010, when the last (and still formally operative) Strategic Concept of the North Atlantic Treaty Organization was promulgated, the Alliance saw itself as seeking to establish a "true strategic partnership" with Russia.⁷ The author of this dissertation sat directly behind President Barack Obama and Russian President Dmitry Medvedev at the Lisbon Summit and can attest that there was a genuine rapport between the two leaders and a genuine sense of possibility in terms of cooperating on matters of mutual concern and interest. Indeed, ambassadors at that meeting spoke of the "Spirit of Lisbon." As one allied ambassador reported afterwards: "After some difficult years of stalemate ... the fact that President Medvedev and the Alliance reached agreement on further developing cooperation in a variety of areas, such as Afghanistan, a common threat assessment, and missile defense is a clear example of how the new

⁴ "China Now Our Biggest Threat, Says US," *The Times (UK) On-line*, July 9, 2020.

⁵ Department of Defense, "Readout of Defense Secretary Lloyd J. Austin III Remarks at Day One of the NATO Defense Ministerial," February 17, 2021.

⁶ The White House, President Joseph R. Biden, Jr., *Interim National Security Strategic Guidance*, March 2021, 8.

⁷ NATO 2010 Strategic Concept, Para. 33. The full citation reads: "NATO-Russia cooperation is of strategic importance as it contributes to creating a common space of peace, stability and security. NATO poses no threat to Russia. On the contrary, we want to see true strategic partnership between NATO and Russia, and we will act accordingly, with the expectation of reciprocity from Russia." Strategic Concepts are the highest-level policy documents that guide the Alliance. The 2010 Strategic Concept was the third agreed after the end of the Cold War in 1991 and it broadened the alliance's remit by identifying three essential core tasks: collective defense, crisis management, and cooperative security.

security environment motivates intensified, global cooperation to counter common threats and challenges.”⁸

However, Putin soon reclaimed the presidency from Medvedev, and Russia’s relationship with the West began a long downward spiral. Yet as late as Spring of 2014, when the Obama Administration released its Quadrennial Defense Review (QDR), U.S. policy toward Russia, while noting that “actions that violate the sovereignty of its neighbors presents risks,” nonetheless reaffirmed that it “is willing to undertake security cooperation with Russia, both in the bilateral context and in seeking solutions to regional challenges.”⁹

Since Crimea, though, NATO and the United States have altered their political policies and military postures dramatically to try to pressure Russia to return to a “rules based international order.” At the 2018 Brussels Summit, NATO leaders summarized their fundamental objections to Russia’s more destabilizing behavior in the following terms:

The Euro-Atlantic security environment has become less stable and predictable as a result of Russia’s illegal and illegitimate annexation of Crimea and ongoing destabilization of eastern Ukraine; its military posture and provocative military activities, including near NATO’s borders, such as the deployment of modern dual-capable missiles in Kaliningrad, repeated violation of NATO Allied airspace, and the continued military build-up in Crimea; its significant investments in the modernization of its strategic forces; its irresponsible and aggressive nuclear rhetoric; its large-scale, no-notice snap exercises; and the growing number of its exercises with a nuclear dimension. This is compounded by Russia’s continued violation, non-implementation, and circumvention of numerous obligations and commitments in the realm of arms control and confidence- and security-building measures. Russia is also challenging Euro-Atlantic security and stability through hybrid actions, including attempted interference in the election processes, and the sovereignty of our nations, as well as the case in Montenegro, widespread disinformation campaigns, and malicious cyber activities.¹⁰

Although NATO is only now beginning to discuss among its member states its position vis-à-vis China, the Alliance has remained fully aligned with U.S. assessment of the Russia threat, as that assessment has been promulgated by the Obama, Trump and Biden administrations. Indeed, it is hard to

⁸ Ambassador Claus Gruber, *Danish Foreign Policy Yearbook 2011*, Nanna Hvidt and Hans Mouritzen, eds. (Copenhagen: Danish Institute for International Studies, 2011), 25.

⁹ *Quadrennial Defense Review 2014* (Washington: Department of Defense, March 4, 2014), 6.

¹⁰ 2018 NATO Brussels Summit Declaration, para. 6.

overemphasize the scale and scope of the political reorientations and military readiness and warfighting enhancements NATO has agreed and implemented since 2014 in response to the challenges to Europe's security environment arising from Russia in the east, as well as new threats of terrorism and instability emanating from NATO's "neighborhood" to the south.

2.0. Political Responses



Figure 2: North Atlantic Council in Session

While continuing to make clear that it still believed that “a partnership between NATO and Russia based on respect for international law would be of strategic value,” NATO leaders, meeting in Wales in September 2014, suspended all “business as usual” with Russia pending evidence that there is “clear, constructive change in Russia’s action that demonstrates compliance with international law and its international obligations and responsibilities.”¹¹ It has also greatly expanded its cooperation with the EU on countering Russian “hybrid” threats,¹² and, as shown below, increased total non-US allies’ defense

¹¹ NATO, “Wales Summit Declaration Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council in Wales,” NATO Press Release (2014) 120, September 5, 2014, para. 12 & 13.

¹² “Hybrid” threats are campaigns against a state that combine a wide range of “below the threshold of conventional conflict” activities, including mercenaries, infiltrated and disguised military special forces and/or saboteurs, propaganda and disinformation, cyber, political pressure, and coercive or punitive economic measures.

spending by \$190 billion over six consecutive years of growth under the 2014 Wales Defense Investment Pledge (DIP), with real annual increases by U.S. allies averaging just under 4%.¹³

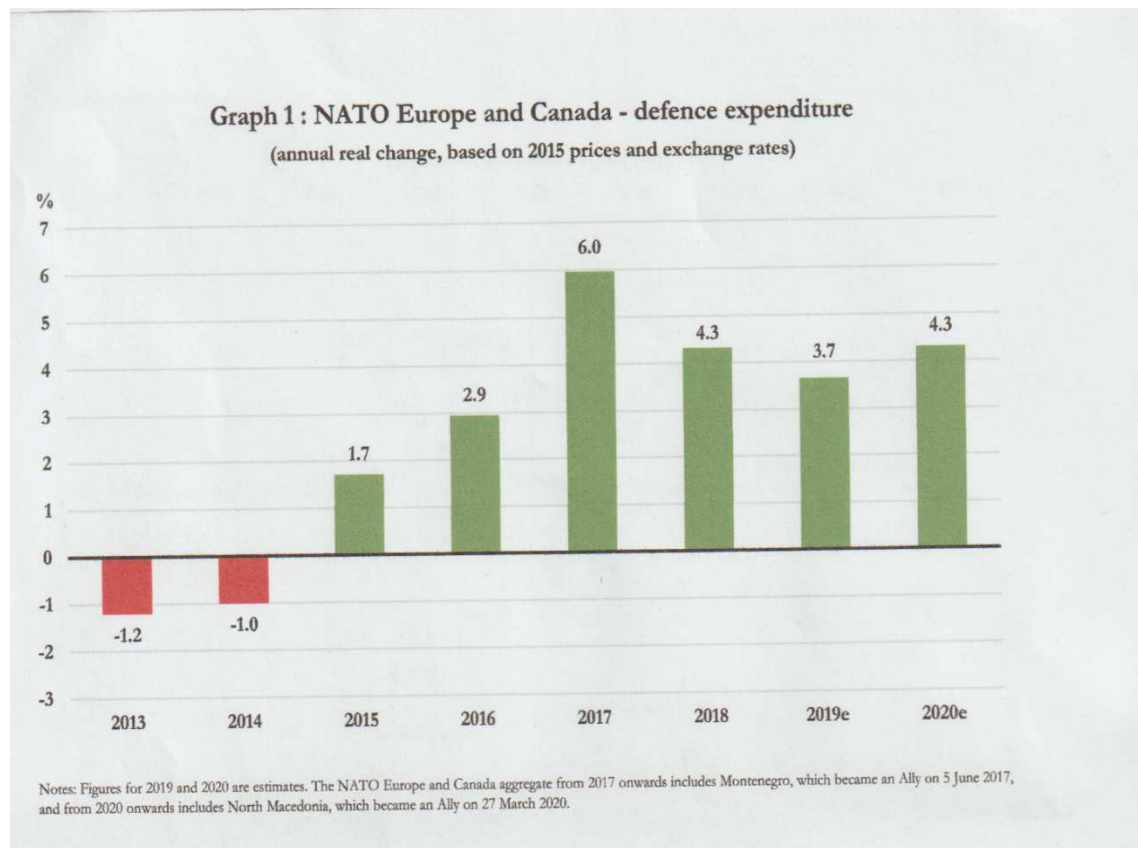


Figure 3: Percentage Change in Non-US NATO Defense Spending, 2013-2020

For its part, the United States under President Obama took immediate steps to reaffirm its fundamental commitment to Article 5. In a speech in Tallinn on September 3, 2014, President Obama said:

We will defend our NATO Allies, and that means every Ally. In this Alliance, there are no old members or new members, no junior partners or senior partners – there are just Allies, pure and simple. And we will defend the territorial integrity of every single Ally. ... Because the defense of Tallinn and Riga and Vilnius is just as important as the defense of Berlin and Paris and London.”¹⁴

Allied confidence in America’s commitment to Art. 5 eroded significantly under President Trump – especially after he publicly expressed disbelief that the United

¹³ Under the 2014 Wales Summit Pledge, each NATO ally committed, *inter alia*, to endeavor by 2024 to be spending at least 2% of its Gross Domestic Product (GDP) on defense.

¹⁴ White House Press Release, Office of the Press Secretary, September 3, 2014.

States would go to war for new NATO ally Montenegro. However, Congress made clear through joint resolutions passed with strong bipartisan support that it still viewed the Alliance as a bedrock of U.S. foreign policy.

2.1. Conventional Defense Responses

In the realm of conventional defense, NATO has, *inter alia*:

- persuaded seven allies to each take a one-year rotational turn in being able to deploy a brigade-sized Very High-Readiness Joint Task Force (VJTF) anywhere in NATO's European treaty area in a week;¹⁵
- committed by 2021 to significantly reinforce any VJTF deployment increase readiness by being able to deploy 30 mechanized battalions, 30 air squadrons and 30 combat vessels in 30 days (the "four 30's" initiative);¹⁶
- conducted the largest U.S. reinforcement deployment to Europe since the Cold War-era REFORGER exercises;¹⁷
- supported infrastructure programs, including the pre-positioning of stocks, and exercises involving U.S. rotational deployments to Europe under the U.S. Enhanced Readiness/Deterrence Initiative (ERI/EDI)¹⁸;
- recognized cyber and space as "operational domains;"

¹⁵ The seven countries are France, Germany, Italy, Poland, Spain, Turkey, and the UK.

¹⁶ Even if these enhancements are fully implemented, though, it is unlikely that it would provide a conventional capability in the Baltics which, standing alone, would be sufficient to deter Russia from an incursion that it could organize under the cover of a multi-brigade "snap exercise" in that region.

¹⁷ REFORGER stood for "Return of Forces to Europe" and it regularly tested America's ability, as promised to NATO, to deploy 10 divisions of troops to the Continent within 10 days. In February 2020, NATO began Exercise DEFENDER-Europe 2020, which according to the U.S. European Command (EUCOM) involved deploying 20,000 U.S. troops from North America to join with 17,000 allied and partner soldiers from 17 countries and moving 13,000 pieces of equipment from depots 4000 kilometers to training sites to test infrastructure, pre-positioned stocks and border crossing policies. The exercise had to be truncated and terminated in March 2020, though, due to the COVID-19 pandemic crisis. The exercise was re-launched in March 2021, with 28,000 troops participating from 27 nations.

¹⁸ That said, the decisions by the Trump Administration in May and July of 2020 to, first, divert over one billion in funds from EDI to help finance the U.S./Mexico border wall and, second, to reduce permanently-stationed U.S. forces in Germany by just under 12,000 (6,400 of which will return to the United States) certainly went against the vector of these post-Crimea enhancements. For the Pentagon's view in 2020, however contrived so as not to appear to contradict Trump, that these redeployments actually augment NATO deterrence and reinforce the Administration's National Defense Strategy, see: *Department of Defense Senior Leaders Brief Reporters on European Force Posture*, U.S. Department of Defense, July 29, 2020, pp. 1-14. That said, the Biden White House confirmed on February 14 that they had been "frozen" pending further review, and on April 14, Defense Secretary Austin announced that U.S. troop strength in Germany would actually be increased by 500.

- added two new operational commands, Joint Forces Command-Norfolk and Joint Support and Enabling Command, to better align NATO's Command and Control (C2) structure with operational requirements related to protecting the sea lines of communication across the Atlantic and streamlining military mobility in Europe;
- Adopted a new military strategy in early 2020, MC 400, that addresses the evolving great power competition environment;¹⁹
- consistent with MC 400, approved Graduated Response Plans (GRPs) for Polish and Baltic defense scenarios that for the first time since the Cold War match forces against country-specific conflict planning; and
- deployed four "enhanced Forward Presence" (eFP) combat battalions (or "battlegroups") to the eastern borders of Latvia, Lithuania, Estonia and Poland with pre-delegated Rules of Engagement (ROE) directing the battlegroups to engage in combat immediately in the event of a Russian incursion. This "tripwire" function is seen by NATO as having a deterrent effect, just as the maintenance by the United States of a brigade in Berlin throughout the Cold War had a deterrent effect.



Figure 4: NATO eFP Deployments

¹⁹ Interview, N2.

2.2. Nuclear Posture Enhancements



Figure 5: DCA F-16 After Refueling

NATO's *nuclear-related* responses to Russia's increasingly aggressive behavior since 2014 have included policy and posture measures. First, the importance of the DCA mission within the Alliance's overall deterrent strategy was elevated. At the Chicago Summit in 2012 – two years before Russia's aggression in Ukraine – NATO leaders approved the Deterrence and Defense Posture Review (DDPR). In this strategic guidance document, the forward-basing of U.S. B61 bombs for allied aircraft delivery in wartime had been described simply as “currently meet[ing] the criteria for an effective deterrence and defense posture,” and the door was left sufficiently ajar as to consider a reappraisal “in case NATO were to decide to reduce its reliance on non-strategic nuclear weapons based in Europe.”²⁰ DCA was not mentioned in the 2014 Wales Summit Communiqué, but by the time of the 2016 Summit in Warsaw, allies had agreed that in addition to U.S., UK and French strategic nuclear forces, NATO's nuclear posture “also relies, *in part*, on United States' nuclear weapons forward-deployed in Europe

²⁰ 2012 DDPR, 2-3.

and on capabilities and infrastructure provided by Allies concerned.”²¹ (emphasis added) To underscore the point that NATO was very much “a nuclear alliance,” Secretary General Stoltenberg in 2017 made a point of visiting the U.S. nuclear ballistic missile submarine base at King’s Bay, Georgia, including holding a press conference standing in front of mock-ups of Polaris, Poseidon and Trident missiles.²² Back in Brussels the next year allies agreed, under prodding from the Trump Administration, to drop the qualifier “in part” from the key phrase describing DCA’s role in underpinning nuclear deterrence. The operative sentence reads in full: “NATO’s nuclear deterrence posture also relies on United States’ nuclear weapons forward-deployed in Europe and the capabilities and infrastructure provided by Allies concerned.”²³ As a matter of “high policy,” NATO encourages the “broadest possible participation” in this mission.

At the nuclear operational level, NATO leaders have pursuant to decisions taken both under President Obama and President Trump shortened the time required to assemble some nuclear-capable aircraft provided by those allies who participate in DCA, considered measures to lessen the nuclear weapons’ vulnerability to pre-emptive attack, and tried to persuade allies to agree to more realistic and high-level exercises to make the transition from conventional to nuclear operations more seamless.²⁴ Then-Secretary of Defense Ash Carter in remarks several weeks after the 2016 Warsaw Summit described the nuclear adaptations that Allies had agreed there (which were later reaffirmed at the 2018 Brussels Summit) in the following terms:

We’re refreshing NATO’s nuclear playbook to better integrate conventional and nuclear deterrence to ensure we plan and train like we’d fight and to deter Russia from thinking it can benefit from nuclear weapons use in a conflict with NATO, from trying to ‘escalate to de-escalate,’ as some there call it.²⁵

²¹ NATO, “Warsaw Summit Communique Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council in Warsaw 8-9 July 2016,” NATO Press Release (2016) 100, July 9, 2016, para. 53.

²² Personal experience of the author of this dissertation, who stood-in for Secretary Carter in escorting SYG Stoltenberg on this trip.

²³ 2018 NATO Brussels Summit Declaration, para. 35.

²⁴ Interview, N2.

²⁵ “Remarks by Secretary Carter to Troops at Minot Air Force Base, North Dakota,” DoD Press Release, September 26, 2016. NATO’s “live fly” DCA exercises, known as *Steadfast Noon*, occur annually. At these exercises, aircraft from DCA nations are joined by non-nuclear capable aircraft performing support or escort roles under a program awkwardly named “SNOWCAT” (Support for Nuclear Operations using Conventional Air Tactics). One senior Obama official interviewed expressed skepticism that any U.S. official above the level of Deputy Assistant Secretary could say what “SNOWCAT” was, let alone which allies participated (Interview, US1). The “3 No’s” restriction does not apply to eastern European allies, such as the Czech Republic or Poland, who

The latter has included an increased focus on the “conundrum” allies would face in a conflict that was being waged conventionally (but not yet involving nuclear strikes) in terms of deciding when and how much dual-capable aircraft should be withdrawn from the conventional fighting to prepare a DCA nuclear option.²⁶ However, another former SACEUR interviewed cautioned that despite these kinds of discussions, including at the Defense Ministerial level, “we’re not there yet.”²⁷

NATO has *not*, however, undertaken a campaign to increase the number of allies participating directly in the DCA posture, the number of DCA bases, or the inventory in Europe of B61 bombs. Chapter 4 examines why.

choose to provide SNOWCAT support aircraft. This had led Russia to charge, erroneously, in NATO-Russia Council (NRC) meetings that some eastern European allies are “DCA nations” in violation of the “3 No’s” pledge [Interview, A1].

²⁶ Interview, N1.

²⁷ Interview, N2.

CHAPTER THREE

DCA's NUCLEAR-SHARING ANTECEDENTS



Figure 6: U.S. Army 280 mm. Atomic Cannon – 1950s

Throughout NATO's existence, there have been repeated efforts to institutionalize the "sharing" of nuclear risks and responsibilities between the United States and its Allies. Six "eras" antecedent to this dissertation's post-Crimea timeframe can be identified:

1. the early Cold War period (1949-1954),
2. the Eisenhower "New Look" years (1954-1957),
3. the NATO "atomic stockpile" and IRBM decision years (1957-1961),
4. the unsuccessful quest for a MLF and the adoption of the NPG as a default solution (1961-1967),
5. the INF "double track" era (1977-1989), and
6. the 1991 Bush-Gorbachev PNIs and post-Cold War era (1991-2014).

3.0. Early Cold War Period (1949-1954)

The Soviet Union's successful detonation of an atomic bomb in late August 1949 came only four months after the North Atlantic Treaty had been signed in Washington, DC. From the beginning, then, the Alliance had to wrestle with the reality that there was no longer an American monopoly on the nuclear option.

For its first year or two, as Seth Johnson has observed, NATO was “more a treaty than an institution,” but then the recurring crises in Berlin and the onset of the Korean War brought home the reality of Soviet intentions.¹ NATO, the institution, did not engage in the Korean conflict, and only a few allies sent combat units. Instead, NATO’s emphasis was on trying to establish a credible conventional defense in Europe, including creating a permanent political and integrated military structure, appointing General Eisenhower as the first Supreme Allied Commander, Europe (SACEUR), and adopting an agreed strategy. NATO’s first Strategic Concept, DC 6/1, had been agreed in December 1949.² The March 1950 document codifying the NATO Military Committee’s agreement on how best to implement DC 6/1, MC 14, called for a conventional defense of Western Europe able to hold any Soviet aggression at bay no further west than a line formed by the Rhine and IJssel Rivers.³

In this era, NATO’s nuclear “umbrella” was a strictly U.S. and UK affair. The U.S. inventory was at first quite limited: only about 50 atomic bombs in 1949, each only twice the yield of the Hiroshima explosion.⁴ Other than asking Canada for permission to store nuclear bombs for the long-range B-36 jet bomber at Goose Bay, Labrador, nuclear deterrence for NATO initially rested exclusively on U.S. strategic bombers deployed at air bases in the United States and Royal Air Force (RAF) heavy bombers stationed at airfields in Great Britain. Under MC 14, conventional forces were to provide a forward “shield” while U.S. and UK strategic nuclear bomber strikes on targets deep in the USSR would hopefully convince the USSR to pull back.⁵ However, these two warfighting domains – NATO conventional and U.S./UK nuclear – for all intents and purposes existed in parallel universes. The only NATO cross-over from the U.S./UK strategic operations plan was a modest allocation of so-called “retardation” nuclear strikes on Soviet armored forces by U.S. strategic bombers forward-deployed in the UK. NATO’s first SACEUR, General Eisenhower, had no nuclear weapons under his command, and his only role in the “retardation” mission planning was to identify which Soviet armored forces should be targeted.⁶

By 1952, though, improvements in nuclear weapons design and construction allowed smaller, so-called “tactical” or “battlefield,” bombs. In December of

¹ Seth A. Johnson, *How NATO Adapts: Strategy and Organization in the Atlantic Alliance Since 1950* (Washington, DC: Johns Hopkins University Press, 2017), 10.

² *Strategic Guidance for North Atlantic Regional Planning (DC 6/1)*, December 1, 1949.

³ Diego Ruiz Palmer, *A Strategic Odyssey: Constancy of Purpose and Strategy-Making in NATO, 1949-2019* (Rome: NATO Defense College, June 2019), 8.

⁴ Marc Trachtenberg, *A Constructed Peace: The Making of the European Settlement, 1945-1963* (Princeton: Princeton University Press, 1999), 89.

⁵ Ruiz Palmer, 8.

⁶ *Ibid.*, p. 26.

that year, NATO agreed its second Strategic Concept, MC 14/1, which still focused NATO planning on a large-scale conventional defense on the Rhine-Ijssel line.⁷ To fulfill this plan, NATO defense ministers meeting in Lisbon in February had set the goal of building conventional defenses up to the level of 90 divisions, including 30 ready divisions in Central Europe – Force Goals that never were and never could have been realized.⁸ Despite the continued emphasis on conventional defense, 14/1 previewed an early transition to a different strategy. As noted in this strategic guidance:

It has been assessed by sources with knowledge of weapons of mass destruction that, although by the period 1953-1954 their effect on the conduct of war will not dictate a need to reduce current NATO Force Goals, greater availability of such weapons and increased delivery capability during the period 1954-56 may then necessitate re-evaluation of the requirements for a successful defense of the [NATO] area.”⁹

In this sense, MC 14/1 took account of the permanent stationing in the UK of U.S. nuclear-delivery capable fighter bombers that had begun earlier in 1952.¹⁰ These deployments were followed by the deployment by the U.S. Army of atomic cannons and Corporal short-range ballistic missiles in West Germany in March, 1955.¹¹ In addition, the Army established a headquarters, the Southern European Task Force (SETF), in Italy dedicated to providing nuclear weapons support to the conventionally-armed forces of Italy, Greece and Turkey.¹² All nuclear weapons remained under strict and exclusive U.S. control, and the responsibility for delivering them in a war rested solely with the United States.

⁷ *Ibid.*, 8.

⁸ *Ibid.*, 25.

⁹ MC 14/1 (“Strategic Guidance”), December 9, 1952, declassified and published in *NATO Strategy Documents, 1949-1969*, SHAPE (<https://www.nato.int/archives/strategy.htm>), 205.

¹⁰ Hans M. Kristensen, *U.S. Nuclear Weapons in Europe: A Review of Post-Cold War Policy. Force Levels, and War Planning* (Washington, DC: Natural Resources Defense Council, February 2005), 24.

¹¹ Robert S. Norris, William M. Arkin, and William Barr, “Where They Were,” *Bulletin of American Scientists*, Vol. 55, No. 6 (Nov/Dec 1999), 29. The source of this information for the authors of this article is: *History of the Custody and Deployment of Nuclear Weapons: July 1945 through September 1977*, Office of the Assistant to the Secretary of Defense (Atomic Energy), February 1978. A redacted version of this document is available in the Office of the Secretary of Defense’s FOIA Reading Room, Room 2C757, The Pentagon. Appendix B, titled “Chronology Deployment by Country 1951-1977” does not redact the information about U.S. nuclear weapons deployments in West Germany during these years.

¹² Ruiz Palmer, 28.

3.1. Eisenhower's "New Look" (1954-1957)

General Eisenhower's election in November 1952 changed NATO's deterrence and warfighting strategy dramatically. Espousing what he called a "New Look," Eisenhower argued that a defense based on huge conventional forces was neither politically nor economically sustainable within the Western democracies and that deterrence and defense would be better predicated on America's superior nuclear capabilities.¹³ Insisting that "technology" and "greater firepower" could substitute for ground forces, the Eisenhower Administration began to sharply reduce the size of U.S. armed forces and the budgets which supported them. This included U.S. troops in Europe, which Eisenhower reduced by two divisions in 1953. In a meeting that year with NATO's Secretary General, Paul-Henri Spaak, President Eisenhower maintained that due to the addition of innovative atomic firepower, there had been "no reduction in the actual strength" of the remaining units.¹⁴

The underlying principles of the New Look were quickly and enthusiastically embraced by most of America's European allies. As Michael Howard later noted:

It was then that thermonuclear weapons came to the rescue of soldiers and politicians alike, providing a deterrent that appeared militarily credible at a socially acceptable cost. The long-term implications of depending on weapons of mass destruction for national security worried only a politically insignificant minority. Governments, and the majorities on which they relied, found in nuclear weapons so convenient a solution to their budgetary problems that they were adopted almost without question. Conventional forces, with all their heavy social costs, could be reduced to the status of tripwires, or, at most, of shields to repel an enemy assault for long enough for the Strategic Air Command to strike decisively at targets within the Soviet Union. The critiques both of the moralists and of the military specialists made no impact on those real centers of power in Western governments, the treasuries, which owe their power to their capacity to reflect and enforce broadly accepted social priorities.¹⁵

¹³ The New Look emerged from the "Project Solarium" review in 1953. See: Gates Brown, *Eisenhower's Nuclear Calculus in Europe: The Politics of IRBM Deployments in NATO Nations* (Jefferson, NC: McFarland & Co., 2018).

¹⁴ *Foreign Relations of the United States (FRUS), 1955-1957, Vol. IV (Western European Security and Integration)* (Washington, DC: US GPO, 1986), 183.

¹⁵ Michael Howard, "Reassurance and Defense," *Foreign Affairs, Winter 1982-1983*, *Foreign Affairs* website, Archives, accessed 11/19/2020.

In January 1954, Secretary of State John Foster Dulles, in remarks at the Council on Foreign Relations in New York City, summarized the Eisenhower Administration's New Look doctrine in terms that immediately came to be known as "massive retaliation." In his remarks, Dulles warned that "it is not sound to become permanently committed to military expenditures so vast that they lead to 'practical bankruptcy'."¹⁶ Rather, he explained, a "basic policy decision" had been taken by the President and the National Security Council "to depend primarily upon a great capacity to retaliate, instantly, by means and at places of our choosing." While "[local] defense will always be important," he said, "local defenses must be reinforced by the further deterrent of massive retaliatory power."

The Eisenhower Administration soon realized that the speech had given rise to misunderstandings, both by allies and the American media and public, as to the automaticity of response incorporated in the "massive retaliation" doctrine. Some allies in NATO worried that they might get "entrapped" and perhaps obliterated in a devastating nuclear exchange over a fairly minor border incident or incursion. This necessitated a "corrective" effort by Dulles in the form of an article in *Foreign Affairs* three months later. In this essay, the Secretary lamented that the New Look "was misconstrued in various respects" and insisted that the core idea was that while "[the] potential of massive attack will always be kept in a state of instant readiness," U.S. strategy "will retain a wide variety in the means and scope for responding to aggression."¹⁷ Dulles maintained that "the West European countries have both a military tradition and a large military potential, so that through a European Defense Community, and with support by the United States and Britain, they can create an adequate defense of the Continent."

Nonetheless, singling NATO out as the alliance that "best exemplifies this collective security concept," Dulles urged it not to "match the potential Communist forces, man for man and tank for tank, at every point where they might attack," but rather to adopt a "better strategy" for its defense based on air and naval power and atomic weapons which are now available in a wide range, suitable not only for strategic bombing but also for extensive tactical use."

The responsibility for adapting NATO strategy to reflect the key principles of the New Look fell to General Alfred Gruenther, NATO's 3rd SACEUR. In December 1953, the North Atlantic Council "invited" the Military Committee to reach

¹⁶ John Foster Dulles, "The Evolution of Foreign Policy," Department of State Press Release 81, January 12, 1954.

¹⁷ John Foster Dulles, "Policy for Security and Peace," *Foreign Affairs*, April 1954, *Foreign Affairs* website, accessed 11/19/2020.

conclusions on “the most effective pattern of NATO military strength for the next ten years.”¹⁸ The resulting report, produced under Gruenther’s leadership and known as MC 48, was approved by the NAC a year later, in December 1954. MC 48 codified what NATO’s military leaders saw as the “most effective pattern of military strength” that could be expected “within the resources which it is anticipated will be made available.”¹⁹ Its conclusions concerning the primacy of nuclear weapons could not have been expressed any more starkly:

With the quantities of atomic weapons estimated to be available to [NATO’s] forces in the next few years, it lies within NATO’s power to provide an effective deterrent in Europe and, should war come despite the deterrent, to prevent a rapid overrunning of Europe provided that: the ability to make immediate use of atomic weapons is ensured [and] a German contribution [i.e., rearmament] will be provided. ... The advent of new weapons, plus a German contribution will for the first time enable NATO to adopt a real forward strategy with a main line of defense well to the East of the Rhine-Ijssel. This is vital to a successful defense in Central and Northern Europe and to the basic NATO strategy.²⁰

As Trachtenberg has noted: MC 48 “was one of the three great taproots of the Eisenhower nuclear-sharing policy, something which in turn was of basic importance because of its bearing on the question of Germany’s nuclear status.”²¹ MC 48, he argues, not only put NATO in a position on relying on nuclear weapons for deterrence of Soviet aggression, it also embraced the notion of “immediate” and “massive” use of this option, and most probably pre-emptively.²²

3.2. NATO Atomic Stockpile and IRBM Era (1957-1960)

Dulles’ “massive retaliation” speech and article, together with NATO’s adoption of MC 48, presaged the “atomic stockpile” and IRBM offers that he and the President would formally present to NATO Heads of State and Government at their first NATO Summit, which was held in Paris in December 1957. The atomic stockpile proposal, which was first suggested by France at the Foreign Ministerial meeting in Bonn in May 1957, was adopted and put forward by the Eisenhower Administration in Paris only after extensive consultations in late 1957 with the Joint Chiefs of Staff that led to its reformulation on terms acceptable to them.²³

¹⁸ “Resolution on the 1954 Annual Report and Related Problems,” (C-M (53)166, December 15, 1953).

¹⁹ MC 48 (Final), 22 November 1954. Available at <https://www.nato.int/archives/strategy.htm>.

²⁰ MC 48, 12.

²¹ Trachtenberg, viii.

²² *Ibid*, 159 and 162.

²³ *Ibid.*, 209 and 215.

As is normally the case, the U.S. administration determined that if you are going to send the President to a summit, you must ensure there is a headline agreement, or, in the jargon of diplomacy, a major “deliverable.”

Cued by Eisenhower, Dulles explained the proposal to the other Heads of State and Government seated around the NAC table:

The United States is prepared, if this Council so wishes, to participate in an atomic stockpile. Within this stockpile system, nuclear warheads would be deployed under United States custody in accordance with NATO defensive planning and in agreement with the nations directly involved. In the event of hostilities nuclear warheads would be released to the appropriate Supreme Allied Commander for employment by nuclear-capable forces.²⁴

Eisenhower believed strongly that if the United States was telling its allies that it had determined that the new tactical nuclear weapons were essential to fighting modern wars and would compensate at lower cost for lack of conventional forces, then the United States could not deny this capability to NATO.

Furthermore, Eisenhower was eager for budgetary reasons to withdraw U.S. forces from Europe and return the primary responsibility for the defense of Europe back to Europeans. Ideally, in his view, this would have been “operationalized” through the creation of the European Defense Community (EDC) that had been envisioned by the UK, France and the 3 Benelux nations in the Brussels Treaty signed in 1950, with NATO serving as a sort of adjunct organization to provide a means for ancillary U.S. support. With the rejection of the EDC by the French parliament in 1954, though, NATO became the default option for keeping the U.S. militarily engaged in Europe while German rearmament proceeded apace within and subject to the new integrated command structures of the Alliance.

With Germany’s accession into NATO in 1954, then, the Alliance became the key to ensuring its new German army did not operate independently. As NATO’s first Secretary General, Lord Ismay, put it, NATO’s *raison d’être* became to “keep the Soviet Union out, the Americans in, and the Germans down.”²⁵ To accomplish this at a financial cost that Eisenhower could imagine Americans being willing to pay, he wanted, therefore, “the major NATO allies, including West Germany, to have nuclear forces under their own control.”²⁶

²⁴ *Department of State Bulletin*, Vol. XXXVIII, No. 967, July 6, 1958, 8.

²⁵ NATO website: “Origins/NATO Leaders/Lord Ismay.”

²⁶ Trachtenberg, ix.

Although Eisenhower was personally prepared to entertain the notion of an independent German nuclear capability, this was not the view of his senior national security advisors, and it certainly ran strongly counter to allied thinking in Paris and London (not to mention Moscow). Thus, the prevailing U.S. position on non-proliferation throughout the 1950s was that the United States could not, with the exception of the UK and later France, encourage allies to develop their own independent capabilities.

The solution, the Eisenhower Administration concluded, was to provide NATO with its own “atomic stockpile” of warheads for various land-, air- and sea-based tactical nuclear delivery systems, but keep the warheads under exclusive U.S. custodianship until and unless the U.S. President “released” them for allied use. This dynamic worked in both directions: allies valued the reassurance that the physical presence of the bombs provided in terms of tying the United States to its Article 5 commitments, and for the United States, the acceptance by allies of U.S. atomic bombs on European soil showed that they were prepared to accept concomitant risks, including being a potential nuclear “target” in the event of an escalating high-intensity conflict in Europe while not having the “finger on the button” for use of these weapons themselves. As Francis Gavin has observed: “Permanently extending deterrence while inhibiting proliferation have been cornerstones of American grand strategy for so long it is easy to forget how historically unusual, difficult, and demanding this ambition is.”²⁷

The current overarching document by the U.S. Joint Chiefs of Staff on nuclear operations doctrine, issued in 2019, concisely and cogently sums up the balance to be maintained between extended nuclear deterrence and non-proliferation:

The US has formal deterrence commitments that assure European, Asian and Pacific allies. Assurance is a common goal based on collaboration with allies and partners to deter or defeat the threats we face. No nation should doubt the strength of our deterrence commitments or the strength of US and allied capabilities to deter and, if necessary, defeat any threat’s nuclear or nonnuclear aggression. In many cases, effectively assuring allies and partners depends on their confidence in the credibility of US nuclear deterrence, which enables most to eschew possession of nuclear weapons, thereby contributing to US nonproliferation goals.²⁸

²⁷ Galvin, *War-on-the-Rocks*, 10.

²⁸ Joint Chiefs of Staff, “Nuclear Operations,” Joint Publication 3-72, June 11, 2019, p. I-2. Initially published on the unclassified website of the U.S. Joint Chiefs of Staff but then removed. Available at: Steven Aftergood, “DoD Doctrine on Nuclear Operations Published, Taken Offline,” *Federation of American Scientists Secrecy News*, June 19, 2019 <https://fas.org/blogs/secrecy/2019/06/nuclear-operations/>.

Eisenhower's Paris offer also included an Intermediate-Range Ballistic Missile (IRBM) component.²⁹ As explained at the summit by Dulles:

If this Council so desires, and in order to strengthen NATO's deterrent power, the United States is prepared to make available to other NATO countries intermediate-range ballistic missiles, for deployment in accordance with the plans of SACEUR. Nuclear warheads for these IRBMs will become a part of the NATO atomic stockpile system. Such IRBM deployment would be subject to agreement between SACEUR and the countries directly concerned and to agreement between each such country and the United States with respect to material, training, and other necessary arrangements.³⁰

In the wake of the 1956 Suez crisis, restoring the U.S. "special relationship" with UK had been determined by Eisenhower to require that the United States provide it with an IRBM, the US Air Force's *Thor* missile, on which the UK could mate its own nuclear warheads. Eisenhower acknowledged that such an arrangement could not be extended to other NATO allies, due to restrictions under the McMahon Act, the Atomic Energy Act of 1954.³¹ As a consequence, while the U.S. could provide allies with production capacities for building U.S. *Jupiter* IRBMs themselves, they would have to accept that the warheads would be U.S.-provided and U.S.-controlled, even though this effectively established a "two-tier" ranking among U.S. NATO allies: the UK in the first rank, and then the others. France, for its part, was determined to produce its own nuclear delivery systems and its own nuclear warheads.

A NSC review conducted earlier in 1957 under the lead of Robert Sprague had convinced Eisenhower that the US-based long-range bombers of the Strategic Air Command could get caught on the ground in the event of a nuclear surprise attack by the USSR. IRBMs based in Western Europe with ranges sufficient to reach targets in the Soviet Union could, however, serve to maintain nuclear deterrence while work proceeded on a U.S. ICBM. Following the shock of the successful launch by the Soviets of the first Sputnik in October 1957, the need to get a U.S. satellite into space favored accelerating the Army's *Jupiter* IRBM program, since it would "unshackle" Dr. Werner Von Braun from bureaucratic

²⁹ For an excellent review of this history, see: Philip Nash, *The Other Missiles of October: Eisenhower, Kennedy and the Jupiters, 1957-1963* (Chapel Hill: University of North Carolina Press, 1997).

³⁰ *Department of State Bulletin*, July 6, 1958, 8.

³¹ This Act permitted the transfer of special nuclear materials to foreign nations that had made substantial progress in the development of nuclear weapons but prohibited the transfer or export of actual weapons (72 Stat. 276).

control by the USAF, which was building the trouble-plagued *Vanguard* missile. It was this IRBM – the *Jupiter* – that was offered to NATO.

Eisenhower was in fact rather dismissive of the purely military value of the IRBMs. But, as he stressed at an NSC meeting before the summit, there was “the great political and psychological advantage” of the United States’ willingness, if necessary, “to fire a 1500-mile missile and hit something.”³² This theme – that military utility calculations were secondary to the deterrent value of a declaratory policy that envisioned NATO’s being the first to cross the nuclear threshold by employing theater systems – still underpins NATO’s nuclear posture today, with DCA aircraft having taken the place of the *Jupiters*.

Meeting with German Foreign Minister von Brentano one month ahead of that Summit, Dulles informed Germany that the IRBMs could be in production “in a little over a year” if a crash program were launched, and that they would be made available not only to the UK, but to other NATO allies as well, subject to two “essential conditions”: first, that “SACEUR thought it desirable,” and second, that the country “*wanted it*.” (emphasis added).³³ Later in the conversation, Dulles reiterated these two criteria, stressing “the military question of where to place such missiles” and the necessity of the “*political willingness* [of any ally] to receive them.”³⁴ Dulles also underscored the *voluntary* nature of the IRBM plan at a bi-partisan Congressional meeting at the White House on the eve of the NATO Summit, December 3, 1957.³⁵ In public comments at that same time, Dulles said: “Obviously we are not going to force these missiles on anybody that doesn’t want them.”³⁶

The Eisenhower Administration’s insistence on a “no pressure” approach was later codified in the Basic National Security Policy (BNSP) strategy document coordinated through the NSC process and approved on August 5, 1959: NSC 5906/1. That presidentially-approved policy guidance stated that the *Jupiter* IRBM missiles would go only to those U.S. NATO allies “which demonstrate a desire to have them and officially request them.”³⁷ Hence from the very first U.S. nuclear-sharing offer to its NATO allies in 1957, the United States has made clear that such arrangements are *only* in play if a particular ally *wishes* to participate. In the end, only Turkey and Italy accepted the *Jupiters*.

³² Nash, 13.

³³ FRUS Vol IV, *Ibid.*, 205.

³⁴ *Ibid.*, 205 (emphasis added).

³⁵ Brown, 126.

³⁶ Nash, 19.

³⁷ *Ibid.*, 64.

In an insightful essay written in 1960 (but not authorized for public release for another 35 years), several analysts at RAND who went on to achieve high standing in the IR nuclear policy and arms control communities - Bernard Brodie, Alexander George and Fred Iklé - explained the underlying logic of this *laissez faire* approach:

In the event of additional agreements on nuclear sharing, the political complexion of the allied governments, and in particular their attitudes toward sharing, is likely to influence the cohesion of the alliance more than the agreement itself. For this reason it appears unwise for the United States ever to press an agreement for sharing upon an apathetic or unwilling ally.³⁸

In Chapter 6, the decisions taken in response to the Eisenhower atomic stockpile and IRBM offers by each of the 11 allies chosen for case studies will be discussed in detail. NATO has always operated on the basis of consensus, and even those allies most adverse to nuclear capabilities (e.g., Norway and Denmark) deferred to the majority view on the atomic stockpile and IRBM offers, while issuing caveats to underscore their own unwillingness to participate directly. In short, at the Paris Summit all NATO allies accepted the Eisenhower offers *in principle*. German Chancellor Adenauer summed up this consensus when he stated:

As long as the Western efforts to create a viable order of peace make no progress and as long as the Soviet threat persisted, the military strength of the Alliance must be organized as to be ready to meet aggression at any time. For this purpose, the Alliance *as a whole* must be equipped with advanced weapons equal to those of their potential enemy.³⁹

That said, the Heads of State gathered in Paris recognized that many details remained to be resolved and deferred the difficult questions related to command and control (C2) to further discussion in the Military Committee and between the United States and those individual allies who were willing to participate. As French Prime Minister Galliard observed: “The discussions which had already taken place in the North Atlantic Council had shown that the whole

³⁸ F.C. Iklé, H. Speier, B. Brodie, A.L. George, A.L. Hsieh, and A. Kramish, “The Diffusion of Nuclear Weapons to Additional Countries: The ‘Nth Country Problem’,” U.S. Air Force Project RAND Research Memorandum, RM-2484-RC, February 15, 1960, (authorized for Public Release per OASD Letter Dated 8 November 1995), 2.

³⁹ *North Atlantic Council Summary Record of a Meeting of the Council Held at the Palais de Chaillot, Paris XVIe., on 16th December, 1957 at 12 noon and 3:30 p.m., C-M(57)82, December 16, 1957*, 9 (emphasis added).

question raised serious difficulties of an essentially political nature, and for which, so far, no overall solution appeared to exist.”⁴⁰

Moreover, given the initial opposition of some allies (e.g., Norway and Denmark) to sign on to the IRBM deal in the first place, the agreement in principle was only secured after the Eisenhower team at the summit reluctantly agreed to incorporate language indicating a willingness to engage the Soviet Union in disarmament negotiations, as had been proposed by USSR Premier Bulganin.⁴¹ Thus the precedent was set at NATO’s very first Head of State summit that decisions on nuclear deployments and posture could only achieve consensus if a “parallel track” on arms control were included – a principle that later found concrete expression in the 1967 Harmel Report and which, in the view of this dissertation, still applies today.⁴²

For the remainder of his term in office, President Eisenhower and his senior national security advisors wrestled with the issue of “whose finger would be on the button” of the nuclear warheads in the NATO atomic stockpile and those that were to be mounted on the allied IRBMs. The key issue in this discussion was whether NATO *itself* would be vested with authority, pre-delegated by the United States to SACEUR, to decide whether to use nuclear weapons or not. In short, the key question was whether in addition to the United States, the USSR, and the UK, NATO (presumably including participation by France) would become the world’s “4th nuclear power.”

The *Jupiter* IRBMs that had been offered to NATO for domestic production at Paris were still under development by the Pentagon, and it was not until a year

⁴⁰ *Ibid.*, 21.

⁴¹ Nash, 23-25.

⁴² Drafting credit in the Harmel Report for the concept of the “two pillars” of deterrence and détente is attributed to Ambassador Foy Kohler, who had served as U.S. Ambassador to the Soviet Union during the Cuban Missile Crisis (Timothy Andrews Sayle, *Enduring Alliance: A History of NATO and the Postwar Global Order* (Ithaca: Cornell University Press, 2019), 158). Pursuant to a NAC decision of April 13, 1967, Ambassador Kohler, then the Deputy Under Secretary of State for the United States, served as Rapporteur for the key sub-group among the four established to draft the Report, the Sub-Group on General Defense Policy, which considered the prospects for arms control measures and their relationship to European security. In a July 18, 1967 memorandum to the other three Sub-Group Rapporteurs that outlined his views for the final report, Kohler wrote: “Security for the members of NATO has always been based on two fundamental propositions. First, the maintenance of adequate military strength. Second, a willingness to seek agreements with the East which would genuinely reduce the risk of conflict.” [all citations from now-unclassified documents declassified and approved for public disclosure in *50th Anniversary of the Harmel Report: National Approaches*, NATO Archives: 2294-17 NATO Graphics & Printing, 2017. In the final Sub-Group 3 report, Kohler’s two “fundamental propositions” was changed to “two pillars.” Personal note: in 1974, I studied under Ambassador Kohler at the Center for International Affairs Studies (CIAS) at the University of Miami in Coral Gables, Florida.

later that SACEUR, by then General Norstad, informed allies that they would soon be ready for deployment.⁴³ Under Norstad's concept, the U.S. President would retain full and exclusive authority to release the warheads to him for delivery by alliance forces, but all allies would share in the costs of building the infrastructure for the nuclear storage sites.

The UK, under the leadership of Prime Minister Harold Macmillan, worried that the other allies' (especially Germany's) possession of the missiles and financing of the infrastructure would inevitably lead to demands for ownership and control of the warheads on terms equal to those that the United States had extended to them and hence risked undermine agreed U.S./UK policy on non-proliferation, as well as the U.S./UK "special relationship." Accordingly, Macmillan counseled delay in the NATO IRBM program.

For its part, France remained intent on acquiring a totally independent nuclear capability. At a meeting between Dulles and General De Gaulle in Paris on July 5, 1958, De Gaulle had made it clear that France would insist on having "primary responsibility" and hence control over all nuclear weapons on its soil, including any U.S. warheads designated for the NATO atomic stockpile or for U.S. delivery systems based in France. In a follow-up meeting later that day, a senior advisor to Dulles informed the French that under those circumstances, given the requirements of U.S. law under the McMahon Act (AEA of 1954, as amended two days prior to the meeting), "it would be absolutely impossible to have any U.S. nuclear weapons stored in France."⁴⁴ France viewed Norstad's concept of having the atomic stockpile and IRBM warheads under "NATO" (i.e., SACEUR's) control as a legerdemain, since SACEUR was always a 4-star U.S. military officer and hence would take his orders from the U.S. President. As one French minister told Norstad, "France is a great power, not the Benelux."⁴⁵

Meeting on July 24, 1958, the National Security Council agreed that the United States should "consider the long-term development of a NATO nuclear weapons authority to determine requirements for, hold custody of, and control the use of nuclear weapons in accordance with NATO policy and plans for the defense of NATO areas."⁴⁶ However, as late as August 1959, this planning had still not come to any conclusions, and the default position remained to keep all NATO-allocated weapons under "dual key" arrangements. Assuming a political decision by the NAC to direct SACEUR to initiate nuclear strikes - a decision that would require unanimity among allies - the actual employment of any such device would

⁴³ Brown, 143.

⁴⁴ *FRUS, 1958-1960, Vol. VII, Part 1 (Western European Integration and Security; Canada)* (Washington, DC: GPO, 1993), 355.

⁴⁵ Brown, 157.

⁴⁶ *FRUS, 1958-1960, Vol. VII, Part 1*, 356.

require not only its “release” by the U.S. President, but also the consent of the host nation. Trachtenberg maintains that not only the Eisenhower Administration, but also SACEUR Norstad and some key allies, such as the UK, favored “deliberately evading” any effort to precisely define the procedure by which the NAC would authorize the employment of nuclear weapons.⁴⁷

By the end of the Eisenhower Administration in 1960, about 500 U.S. tactical nuclear weapons had been deployed to NATO “atomic stockpiles” in Europe under these arrangements, but only Germany, Greece, Turkey, and the Netherlands in the end signed bilateral defense program of cooperation agreements to govern their deployment and prospective. The resulting stockpile included U.S. nuclear bombs for delivery in wartime by allied fighter aircraft that maintained a “Quick Reaction Alert” (QRA) status with pilots and F-104G “Starfighter” aircraft ready for take-off within minutes.⁴⁸

By the early 1960s, the NATO QRA posture was supported by fighter squadrons from Belgium, Canada, France, Germany, Greece, Italy, The Netherlands, and Turkey.⁴⁹ In addition, U.S. nuclear-equipped fighter units were based not only in the UK but also on the soil of three other NATO allies: Belgium, France, Netherlands.⁵⁰ By the end of the Cold War, the total number of U.S. tactical nuclear weapons of all types deployed in Europe would rise to 7000. This included nuclear depth charges, atomic demolition mines, nuclear air-to-air and ground-based interceptor missiles, nuclear gravity bombs, and even a man-portable nuclear rocket. According to open sources, these 7000+ weapons were stationed in eight NATO countries: UK, West Germany, Italy, France, Turkey, Netherlands, Greece, and Belgium.⁵¹

There is no indication that this total was set by NATO military warfighting requirements. Rather, the number was more the result of each service’s determination to ensure that every “step” on the escalation “ladder,” from the immediate battlefield to the far reaches of the theater, whether on land, at sea or in the air, was equipped with a nuclear option.

As far as the IRBM offer was concerned, two years of negotiations had produced agreement with only two allies willing to accept them: Italy and Turkey. Greece flirted with the idea, but under heavy propaganda from the USSR in the end demurred, in part because it was upset that NATO had not formally taken its side

⁴⁷ Trachtenberg, 168-9.

⁴⁸ *Ibid.*, 194.

⁴⁹ Ruiz Palmer, 29.

⁵⁰ Kristensen, 24.

⁵¹ Norris, Arkin and Burr, 29.

with regards to its dispute with Turkey over Cyprus.⁵² Italian and Turkish motivations will be discussed in the Chapter 6. In early 1958, SACEUR Norstad canvassed potential host nations via their Defense Ministers or their National Military Representatives at NATO, but he worked from a list prepared by the State Department that was limited to “those that had responded at least somewhat favorably before and during the Paris summit.”⁵³

At a presidential national security “retreat” in November 1958, the Pentagon recommended that the planned number of *Jupiter* squadrons in Europe be cut in half, citing the fact that most allies were unwilling to accept them. Eisenhower reacted with anger that this “homework” had not been done before billions had been spent to develop the system – but he did not direct any increased effort to pressure or coerce the non-participants.⁵⁴ As Nash documents, “There is no evidence that the administration tried to coerce unwilling allies to take them, and France, Italy, Greece, and Turkey were all, to at least some degree, willing candidates.”⁵⁵ It took until March 1962 to complete the deployment of the *Jupiters*, 30 in Italy and 15 in Turkey. Yet within 13 months, they were gone – victims, if you will, of changing military requirements and capabilities and, in the case of Turkey, a quid pro quo between Kennedy and Khrushchev that was central to the resolution of the 1962 Cuban Missile Crisis.⁵⁶

3.3. MLF and NPG Era (1961-1967)

By the early 1960s, strategic parity and the acceptance of what came to be known as Mutual Assured Destruction (MAD) had undermined the credibility of a NATO strategy based on massive nuclear strikes and given rise to the new Kennedy administration’s articulation of a new doctrine of “flexible response.” As Secretary of Defense Robert McNamara told allies at Defense Ministerial in Athens, May 4-16, 1962: since “a strategy which targets nuclear forces only against cities or a mixture of civil and military targets has serious limitations for the purpose of deterrence and for the conduct of general nuclear war,” the United States had implemented a range of defense enhancement programs “which will enable the Alliance to engage in a controlled and flexible nuclear response in the event deterrence should fail.”⁵⁷ By 1967, NATO had codified Flexible Response in its overarching Strategic Concept, 14/3.

⁵² Nash, 61.

⁵³ *Ibid.*, 42.

⁵⁴ *Ibid.*, 55.

⁵⁵ *Ibid.*, 71.

⁵⁶ *Ibid.*, 1-2.

⁵⁷ “Defense Policy: Statement Made on Saturday, May 5, by Secretary McNamara at the NATO Ministerial in Athens,” NATO Document C-M (62) 55, May 5, 1962, 2.

The U.S./Soviet standoff at the nuclear level was vividly brought home to America's allies by the 1962 Cuban crisis. Kennedy's willingness to "trade" the removal of the *Jupiters* from Turkey, the strong objections of that key ally notwithstanding, for the Soviets' removal of their IRBMs from Cuba led many allies to wonder whether they could any longer count on U.S. extended nuclear deterrence. As a "substitute," the Kennedy Administration in 1963 began maintaining a *Polaris* submarine on patrol in the Mediterranean, but its crews were comprised of U.S. naval personnel.

Kennedy and his new Defense Secretary, Robert McNamara, were aghast that Eisenhower had been willing to entertain the idea that NATO would in and of itself constitute a "4th nuclear power," with SACEUR holding pre-delegated authority to order their use. As McNamara explained it at Athens:

It is essential that we centralize the decision to use our nuclear weapons to the greatest extent possible. We would all find it intolerable to contemplate having only a part of the strategic force launched in isolation from our main striking power. If a portion of the Alliance nuclear force, acting by itself, were to initiate a retaliatory strike by destroying only a small portion of the Soviet nuclear force, our enemy would be left free to reallocate other weapons to cover the targets originally assigned to the destroyed part. Thus, aside from endangering all of us, a strike aimed at destroying the Soviet MRBM's aimed at Country A, which left the others standing, would be of little value to Country A. It would merely oblige the Soviets to shift other missiles to cover the Country A targets.⁵⁸

By the time of the Athens Ministerial the new administration had tried to assure allies by reaffirming that its strategic nuclear forces would continue to cover as fully as possible all key elements of the Soviets' nuclear striking power, "including MRBM sites, giving equal priority to the installations threatening NATO Europe as to those threatening the United States."⁵⁹ With his key assurance in hand, then-SYG Dirk Stikker argued that allies could turn to the vexing question of "the means of associating all members of the Alliance more closely with the political control over the use of nuclear weapons now in possession of the forces assigned or earmarked to NATO."⁶⁰ Stikker noted that all suggestions he had previously made for "a multilateral decision-making machinery" had proven "difficult," including "decision by a restricted group

⁵⁸ *Ibid.*, 7. The text of the speech, partially declassified in 1979, is available at the OSD/JS Reading Room (http://www.dod.mil.pubs/foi/reading_room/45.pdf.gfu).

⁵⁹ "Annual Political Appraisal: Special Report by the Secretary General on NATO Defense Policy," NATO Document C-M (62) 48, April 17, 1962, 3-4.

⁶⁰ *Ibid.*, 3.

acting on behalf of the Alliance, decision by the United States if the government of the country so requested and if this request was supported by SACEUR, a system of weighted voting, [and] creation of a NATO nuclear weapons agency.”⁶¹

He therefore proposed as a “temporary” solution that “the Council should seek the formal agreement of the United States that the United States President act for NATO and, in reaching a decision on the use of nuclear weapons in defense of the NATO area, be governed by previously agreed principles or guidelines.” These included the principle of consultation and the guideline requirement for consensus in all NAC decisions. The United States responded positively and promised to “cooperate in ensuring that the North Atlantic Council has at its disposal the full amount of information compatible with the requirements of security covering, in general terms, types, numbers, striking power, deployment and targeting policy of nuclear weapons for the forces assigned to or earmarked for assignment to SACEUR and SACLANT,” as well as “appropriate information available with regard to the capabilities and intended plans of the strategic forces.”⁶²

These understandings later came to be known as the “Athens Guidelines.”⁶³ The Athens Guidelines were subsequently codified in 1965 in a formerly NATO Cosmic Top Secret document:

Following a political decision to authorize the employment of nuclear weapons, each Major NATO Commander retains the sole authority within his respective command to direct their employment in support of operations. Nuclear weapons allocated by the United States for employment in support of SACEUR and SACLANT plans will remain in the custody of United States personnel until released by appropriate procedures to the NATO delivery units. The United States exercises custody of weapons through a system of storage sites at or near the location of NATO delivery units. When the political and military decision to employ nuclear weapons is made, that decision, together with the Permissive Action Link and authentication codewords, is transmitted to the United States custodial personnel via both NATO and US communications circuits. Upon receipt of this information through either communications channel, storage site custodians are able to unlock

⁶¹ *Ibid.*

⁶² *Ibid.*, 4.

⁶³ “Meeting of the Special Committee of Defense Ministers, on November 27, 1965,” NATO Document PO/65/616, December 10, 1965, 1.

Permissive Action Links and to transfer nuclear weapons to delivery units.⁶⁴

At a NAC a month before Athens, NATO had agreed in principle to a UK proposal to establish a Nuclear Committee “to receive nuclear information,” including that included in the U.S. assurance, and, potentially, to serve as a “consultative body on certain aspects of NATO nuclear policy.”⁶⁵ However, due to problems related under U.S. law to the dissemination to foreign governments of information concerning U.S. atomic weapons, this Committee was, in NATO SYG Brosio’s words, “not very active.”⁶⁶

Accordingly, with the information problem finally resolved, NATO agreed to at a Defense Ministerial in Paris three years later to a McNamara proposal to establish a “Special Committee” at the Defense Ministers’ level to “study and make proposals on how allied participation in planning for the use of nuclear forces, including strategic nuclear forces, might be improved and extended.”⁶⁷ The Special Committee was composed of Defense Ministers from Belgium, Canada, Denmark, Germany, Greece, Italy, the Netherlands, Turkey, the UK and the United States. At its first meeting, in Paris on November 27, 1965, the Special Committee agreed to organize its work in three subcommittees, one of which, the 5-member Nuclear Planning Working Group (United States, UK, Germany, Italy and Turkey), evolved by 1967 into the 9-member Nuclear Planning Group (NPG).⁶⁸

⁶⁴ *Ibid.*, 15.

⁶⁵ 1967 NATO SYG Annual Political Appraisal, 5.

⁶⁶ “Resumption of Discussion of Nuclear Questions,” NATO Document PO/65/360, June 29, 1965, 3.

⁶⁷ *Ibid.*, 5.

⁶⁸ “Special Committee of Defense Ministers,” NATO Press Release (65)19, November 27, 1965.



Figure 7: First Meeting of 7-Nation NPG – April 7, 1967⁶⁹

As noted by the NATO Archivist in an introduction to his office's publication of a compendium of previously-classified documents related to the NPG, "these documents highlight the gradual evolution of the high-level political process away from debates about nuclear sharing based on Allied ownership and control of nuclear forces, and more toward a consultative approach to nuclear policy."⁷⁰ In the annual IISS Alasdair Buchan Memorial Lecture for 1988 in London – 11 years after Helmut Schmidt's famous speech there – NATO Secretary General Manfred Woerner asserted that "the role of the non-nuclear European nations in the nuclear decision-making process was in large measure solved by the creation of the Nuclear Planning Group some 20 years ago."⁷¹

⁶⁹ Photo credit: Lyndon B. Johnson Presidential Library.

⁷⁰ *Nuclear Planning Group* (Brussels: NATO, 2017).

⁷¹ "Alasdair Buchan Memorial Lecture by Secretary General, Manfred Woerner," NATO Website: On-line History, NATO Speeches, November 23, 1988, 2.

The Kennedy Administration had also been appalled at how fragile and unconvincing the safeguards were that the United States could have stopped any ally that had been intent of launching a NATO nuclear system that was supposed to be under "Dual Key" arrangements. As Nash has noted, a high-level commission headed by the Chairman of the Atomic Energy Commission, John McCloy, that traveled to Europe during the Eisenhower-Kennedy transition period found that at one NATO QRA base, the only U.S. "safeguard" against an ally's nuclear-uploaded fighter from taking off was "a solitary, eighteen-year-old U.S. sentry at the end of the runway who had been issued a carbine but no specific instructions" who presumably would try to shoot the renegade pilot.⁷²

As a consequence, NATO and the Kennedy (and then Johnson) administration embarked on a long, often painful, and ultimately unsuccessful effort to identify some sort of "multilateral nuclear force (MLF) that could assure nervous allies that it was not only the American President whose "finger" was "on the button." This long saga has been the subject of many excellent scholarly investigations,⁷³ and it will only be summarized in this dissertation. Alberque succinctly describes the objectives of this episode in NATO's nuclear history in the following terms:

It is worth understanding the origins and development of the NATO Multi-Lateral Nuclear Force (MLF) proposals as an effort to improve and formalize nuclear burden-sharing, to dis-incentivize any Allies inclined to seek nuclear weapons, and as a way to encourage, or at least not interfere with, European integration. The MLF was also intended to satisfy West German desire for a greater voice in nuclear employment decisions, while foreclosing the option of an independent nuclear deterrent.

As Hal Brands has argued, the MLF was intended to tie West Germany to NATO under U.S. leadership and prevent the emergence of a non-NATO nuclear bloc in Europe.⁷⁴ However, it failed due to a complex reality of interacting issues that were at once political, military and technical, to be replaced in time by a simpler solution: the NPG.

At a press conference on the eve of the first meeting of the NPG in April 1967, U.S. Secretary of Defense Robert McNamara noted that the United States and its NATO allies had for more than 10 years "struggled with the problem of how to

⁷² Nash, 86.

⁷³ For example, see: Timothy Andrews Sayle, "A Nuclear Education: The Origins of NATO's Nuclear Planning Group, *Journal of Strategic Studies* (London: Routledge Taylor & Francis Group, 2020).

⁷⁴ Hal Brands, "Non-Proliferation and the Dynamics of the Middle Cold War: The Superpowers, the MLF, and the NPT," *Cold War History*, Vol. 7, No. 3, 2007, 389-423.

better integrate the nuclear and nonnuclear powers on nuclear matters.”⁷⁵ McNamara proceeded to enumerate the long succession of different nuclear-sharing arrangements that had been recommended or proposed for the MLF during this decade:

1. A proposal in 1960 that the United States sell or assist in the European production of *Polaris* missiles to be deployed under SACEUR.
2. Another suggestion in 1960 to create a multilateral atomic authority which would have made NATO “a fourth nuclear power.”
3. An additional proposal in 1960 for a NATO medium range ballistic missile (MRBM) force involving *Polaris* submarines and missile-carrying surface ships, with multi-lateral ownership, financing, and control and “mixed manning to the extent operationally feasible.”
4. A proposal in 1961 for a NATO seaborne force.
5. A suggestion in 1963 for an inter-Allied nuclear force to include U.K. V-bombers, *Polaris* submarines, and other nuclear elements.
6. A proposal in 1963 for a multilateral nuclear force comprising *Polaris* submarines provided by the United Kingdom, United States forces, and possibly mixed-manned ships.
7. A proposal in 1964 for an Atlantic nuclear force of British V-bombers, British *Polaris* submarines, U.S. *Polaris* boats, and other elements.
8. Suggestions in the early 1960’s that mobile medium range ballistic missiles (MMRBM) might be deployed in Europe on railroad cars or truck-drawn trailers.

None of these concepts for enhanced nuclear-sharing among allies found consensus within NATO, hence NATO’s NSNW posture continued to rely throughout the 1960s and 1970s on U.S. nuclear warheads provided allies for land or air delivery under a “dual-key” control arrangement.⁷⁶ However, in a major departure from the fragile U.S. control over these operationally deployed and widely dispersed weapons prevalent during the Eisenhower Administration, the Kennedy Administration implemented positive control “Permissive Action Links” (PALs) on all these devices to ensure that no host ally could employ them without express permission and direction from the U.S. President.⁷⁷

The Johnson Administration, with Defense Secretary McNamara in the lead, took the initiative to shift the emphasis in the U.S. dialogue with its allies on nuclear

⁷⁵ “NATO Nuclear Planning Group Holds First Ministerial Meeting,” Department of State *Bulletin*, May 1, 1967, 686-7.

⁷⁶ See also: Simon Lunn, “The Modernization of NATO’s Long-Range Theater Nuclear Forces,” Report for Congress (Washington, DC: Congressional Research Service, December 31, 1980).

⁷⁷ Nash, 88.

matters from C2 or hardware matters to a better understanding of the extent of the U.S. nuclear arsenal and its intended uses. This approach, which Sayle has termed “McNamarism,” or, put differently, NATO’s “nuclear education,” culminated in 1967 with the establishment of what was initially called the Nuclear Planning Committee. – the forerunner to the NPG.⁷⁸ Sayle concludes:

The NPG provides an example of the United States sticking firmly to its policy preferences and achieving many, if not all, of those preferences by convincing its allies: by sharing of information, fielding of questions, and forcing discussion, *rather than by strong-arming or hardball*. (emphasis added).⁷⁹

At the first ministerial meeting of the NPG in Washington in April 1967, the seven participating allies (U.S., UK, Canada, the FRG, Italy, the Netherlands, and Turkey) agreed to launch a study on NATO’s “first use” doctrine. Two years of hard bargaining and often contentious exchanges followed, with European allies, especially Germany, concerned that the Alliance not entertain the notion of a “tactical” nuclear war that would be confined to Europe, and the United States principally concerned that there be a genuine tactical nuclear “intermediate” rung on the deterrence escalation ladder before going directly to a general strategic nuclear exchange. At the pivotal NPG meeting at Airlie House, in Warrenton, Virginia, in November 1969, agreement was finally reached on “Provisional” Political Guidelines (PPGs) for NATO nuclear first use.⁸⁰ The United States acceded to a German insistence that if the first “battlefield” use failed to halt a Soviet offensive, the “follow-on” strike “*could*” include military targets on Soviet soil (though not IRBM bases). The PPGs remained in place for almost 20 years and were eventually superseded during the INF era by General Political Guidelines (GPGs).

3.4. 1980s INF “Double Track” Era (1977-1989)

As noted, the establishment of the NPG in 1967 led to a relatively calm period in NATO’s nuclear history where the focus was on consultation and not hardware. That calm was, however, broken on October 28, 1977 when West German Chancellor Helmut Schmidt delivered the annual Alasdair Buchan Memorial Lecture at the International Institute for Strategic Studies (IISS) in London.⁸¹ Concerned that European leaders had in his opinion failed to comprehend “the close connection between parity of strategic nuclear weapons, on the one hand,

⁷⁸ Sayle, “A Nuclear Education.”

⁷⁹ Ibid., 35.

⁸⁰ Andreas Lutsch, “Merely ‘Docile Self-Deception’?: German Experiences with Nuclear Consultation in NATO,” *Journal of Strategic Studies*, 39:4, 2016, 532.

⁸¹ Transcript of speech published in *20 Survival* 2, (Jan/Feb 1978), 10.

and tactical nuclear and conventional weapons on the other,” yet fully committed to trying to achieve balances via arms control, Schmidt asserted that “strategic arms limitations confined to the United States and the Soviet Union will inevitably impair the security of the West European members of the Alliance vis-a-vis Soviet military superiority in Europe if we do not succeed in removing the disparities of military power in Europe parallel to the SALT negotiations.” Although he expressed the hope that the on-going Mutual and Balanced Force Reduction (MBFR) talks with the Soviets might in time produce a balance in Europe in conventional forces, nowhere within the realm of arms control was the problem of the USSR’s growing superiority in tactical nuclear weapons being addressed.

Although Schmidt did not mention the Soviet SS-20 intermediate-range nuclear missile by name, in the months and years after the IISS speech this weapons system became the focus of an intense and protracted NATO debate over the prerequisites of deterrence and the possibilities of an arms control solution. In this category of “theater” nuclear systems – short- and intermediate-range nuclear missiles - the USSR v. NATO asymmetry was quite stark: 826 such Soviet missiles either deployed or in reserve versus zero for NATO.

As a first step toward restoring a stable balance, NATO agreed at the 1978 NATO summit in Washington to a Long-Term Defense Program (LTDP), which included a “Task 10” devoted to developing and deploying stronger long-range theater nuclear systems.⁸² The next year, on November 12, 1979, NATO approved a proposal from the NPG’s subordinate working body, the High Level Group (HLG), for a “dual track” approach to denying the USSR any advantages accruing from its on-going SS-20 deployments: on the one hand, 109 nuclear-armed *Pershing 2* ballistic missiles would be deployed in West Germany and 464 *Gryphon* ground-launched cruise missiles (GLCMs) would be deployed on the territory of 4 willing allies (UK, Netherlands, Belgium and Italy). In parallel the United States, then under President Carter, committed to engage the Soviets in a bilateral effort to agree an arms control solution that might allow the NATO deployments to be cancelled or limited.⁸³

During the 1980 presidential campaign, Ronald Reagan had castigated Carter for being weak on defense and argued that no negotiations with the Soviets – on INF or any other issue – should occur until America had restored a superior position of “peace through strength.” After his election allies worried that half of the double track would be jettisoned. But following repeated allied representations in Brussels and Washington, Reagan agreed in late 1981 to begin negotiations on

⁸² Ruiz Palmer, 65.

⁸³ Lunn, 30.

INF and put forward the so-called “zero-zero” option, requiring all Soviet tactical and theater ballistic missiles globally to be eliminated reciprocally with their U.S. counterparts. Allies were initially aghast, fearing the proposal was a complete non-starter. Indeed, the initial Soviet reaction was that “zero-zero” was “dead on arrival.”

To try to inject some creativity into the negotiation, in 1982 the lead U.S. negotiator, Paul Nitze, took a famous (and unauthorized) “walk in the woods” with his Soviet counterpart and reached agreement, *ad ref*, on a compromise plan under which each side would retain missiles, but subject to equal ceilings.⁸⁴ The Nitze *ad ref* understanding was rejected by Washington, following a bitter argument between the State Department (led by Richard Burt) and the Defense Department (led by Richard Perle). This inter-agency argument became known as the “war of the two Richards.” With Nitze’s compromise plan dead, and the talks at a total impasse, the Soviets walked out in 1983.

To try to pre-empt public apprehension that a major escalation of the arms race was inevitable, in 1983 NATO agreed, in what was called the “Montebello Decision,” to unilaterally withdraw 1400 tactical nuclear weapons – one warhead would be removed for each Pershing and cruise missile warhead deployed. NATO also stepped up its defense preparedness, including the massive “Able Archer” air exercise of November 1983. Newly-declassified documents published in the *Foreign Relations of the United States* series reveal how close NATO and the Soviet Union came to nuclear war due to Soviet misinterpretation of this exercise’s intent.⁸⁵

In 1985, Mikhail Gorbachev became USSR General Secretary. To revive the negotiations Soviet Foreign Minister Andrei Gromyko and his U.S. counterpart, Secretary of State George Shultz, agreed to launch a negotiation that would be much broader in scope, the Nuclear and Space Talks (NST). NST had separate negotiating components for INF, START and “Defense and Space” (i.e., covering the U.S. Strategic Defense Initiative (SDI), known as “Star Wars,” or SDI, and the Soviets’ anti-ballistic missile (ABM) systems).

In October 1986, Reagan and Gorbachev met at a Summit in Reykjavik. Although that meeting is best known for Reagan’s “flirtation” with the idea of eliminating all nuclear weapons in exchange for the Soviet’s acceptance of SDI, the one

⁸⁴ This episode in Cold War arms control history was later made into a Broadway play, starring Sam Waterston and Robert Prosky. On the eve of the Senate’s vote on INF treaty ratification in 1988, the play was staged in the Coolidge Auditorium at the Library of Congress with Waterston and Prosky reprising their roles in a special performance for Senators and key staff. The author of this dissertation was in attendance.

⁸⁵ Nate Jones and David E. Hoffman, “Newly Released Documents Shed Light on 1983 Nuclear War Scare with Soviets,” *Washington Post*, February 17, 2021.

concrete achievement was progress on INF. In April 1987, Gorbachev proposed that the SS-20s total equal the total of US GLCMs and British and French SLBMs, together with a “zero option” for the Russian shorter-range “Oka” missile. Reagan countered with “global zero” for INF and SNF, as had now been endorsed by NATO. By the end of November that year, Shultz and Gromyko’s successor, Edvard Shevardnadze, had worked out remaining differences, allowing Reagan and Gorbachev sign the INF Treaty with the INF/SNF global zero outcome. Six months later, the Senate ratified the treaty by vote of 93-5, and it entered into force that June. Between 1988 and the early 1990s, 826 Russian INF missiles and 928 SNF missiles were eliminated together with 689 U.S. INF missiles and 170 SNF missiles.

Several points from this history bear emphasizing. First, an absolutely essential element of the NATO strategy on INF was the willingness to negotiate. Without the “dual track” nature of the 1979 decision providing for both “defense” and “détente,” no consensus would have been possible at NATO on an Alliance-sponsored deployment plan. Second, not all allies were willing to accept NATO INF deployments on their territory, as will be examined in more detail in the Chapter 6. In the end, after West Germany made clear it was willing but would not be the only ally so inclined, a policy it termed “non-singularization,” four others joined in (Belgium, Netherlands, Italy, and the UK). The four were aided in this by the United States’ willingness *not* to insist that the GLCMs and PIRs in each host country be “dual key” in terms of their command and control. With the United States providing launchers, weapons and C2, the four hosting allies’ were not asked to assume a cost share of the weapons systems themselves, as had been the case with the Thor and Jupiter deployments two decades earlier.⁸⁶

Most other allies said “no thanks,” and one, Denmark, went so far as to require a “footnote” to all Alliance declarations explicitly indicating its non-concurrence and non-participation in the deployment track. Denmark even “withheld” its allocated funding share under the NATO Security Investment Program (NSIP) for infrastructure and basing costs reasonably defined as being “INF deployment-related.” However, in a legerdemain that was not revealed to the Danish public, Denmark quietly took steps to compensate its allies for picking up its share of the INF-related NSIP elements by contributing an equal amount more to the other NSIP elements.⁸⁷ Hence solidarity was maintained, the consensus on the “double track” strategy held, and the result was one of the great successes of

⁸⁶ Gregory Trevorton, “Managing NATO’s Nuclear Dilemma,” *International Security*, Vol. 7, No. 4, Spring 1983, 102.

⁸⁷ Interview, US1.

NATO history: the complete global elimination of an entire category of nuclear weaponry via the entry into force and full implementation of the INF Treaty.

Finally, the renewed focus on hardware compelled allies to again address the command and control (i.e., “finger on the button”) issue. In 1986, while the INF negotiating outcome was still in doubt, NATO agreed on NPG-recommended “General Political Guidelines” for the possible use of the INF and other theater nuclear weapons in defense of the Alliance. The General Political Guidelines replaced the Provisional Political Guidelines that had been agreed in the NPG in 1969. As emphasized two years later by Secretary General Woerner:

The General Political Guidelines finally resolved the debate between those who argued that theater nuclear forces could be used decisively as a means of winning a conflict in Europe, and those who saw their role as essentially one of conveying a political signal: a political signal with a powerful military impact, but nevertheless one intended to convey a clear message to the Soviet leadership about NATO’s resolve. The Guidelines unambiguously support this latter elaboration of the strategy.⁸⁸

3.5. 1991 PNIs and Post-Cold War (1991-2014)

The success on INF, together with the willingness of the Soviet government in its final years to show dramatically more flexibility and compromise in negotiating political and arms control solutions to problems that had previously divided the East and West, opened the door to an era of spectacular progress in reducing each side’s nuclear arsenals. Hence the sixth, and last, antecedent period studied here was not so much one of nuclear-*sharing* as nuclear-*shedding*.

The START I and II treaties were agreed, together requiring a 79% reduction in the total U.S. active stockpile of strategic nuclear weapons from the Cold War high and roughly equivalent reductions by the USSR.⁸⁹ In addition, in 1991, acting on a “challenge” for reciprocity from U.S. President G.H.W. Bush, Soviet Premier Gorbachev agree to join the United States in committing each nation to parallel, but unilateral, drawdowns in their deployed tactical nuclear inventories. Under what was termed the “Presidential Nuclear Initiatives” (PNIs), thousands of nuclear shorter-range sea-based, land-based and air-delivered nuclear weapons not covered by either INF or the strategic-level treaties were withdrawn from deployment and put in storage, with most slated for

⁸⁸ Woerner, 4.

⁸⁹ “Letter Dated 10 April 1995 from the Deputy Director of the United States Arms Control and Disarmament Agency Addressed to the Provisional Secretary-General of the 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons,” NPT/CONF.1995/17, April 14, 1995, 17.

elimination.⁹⁰ The United States had by December 1990 reached the level of over 21,300 total nuclear weapons in active and reserve status; however, by December 1994 this inventory was reduced by more than 50% to about 11,000.⁹¹ The number of deployed non-strategic warheads drawn down was over 90%.⁹²

The PNI reductions had dramatic implications for NATO. As stated in a 2009 NATO background document, by 1993:

All nuclear warheads for NATO's ground-launched sub-strategic forces (including nuclear artillery and surface-to-surface missiles) were eliminated and air-delivered gravity bombs were reduced by well over 50 percent. The elimination process included some 300 nuclear artillery weapons and 850 Lance missile warheads. ... In addition, all nuclear weapons for surface maritime forces were removed.⁹³

There was, however, one exception to the general pattern of weapons type eliminations: air-delivered nuclear gravity bombs – a nuclear weapons type that President Bush said must be preserved as “essential to NATO's security.”⁹⁴ David Yost has argued that the air-delivered nuclear bombs were retained “because the allies, including the United States, saw them as most consistent with the NPG criteria of ‘longer ranges,’ ‘greater flexibility,’ and ‘widespread Alliance participation.’”⁹⁵ One senior allied official interviewed for this dissertation offered the following explanation for why NATO still views DCA as “essential”: “DCA? It's nuclear. It's deterrence. It's critical. It's burden-sharing. There is a danger of decoupling. At the end of the day, it's the quintessential *raison d'être* of the Alliance: to keep the United States inside our Continent and prevent a U.S. retreat.”⁹⁶

Karl-Heinz Kamp and retired Major General Remkes agree, citing “manifold” considerations:

⁹⁰ “Presidential Initiatives on Nuclear Arms,” White House Press Release, September 2, 1991. See also: Susan J. Koch, “The Presidential Nuclear Initiatives of 1991-1992,” Case Study 5, Center for the Study of Weapons of Mass Destruction Case Study 5 (Washington, DC: National Defense University Press, September 2012). Koch notes that although air delivered nuclear gravity bombs had been left out of Bush's initial PNI announcement, a meeting of the NPG three weeks later agreed to add a 50% cut in this type of weaponry, from 1400 down to 700 (12).

⁹¹ *Ibid.*, 21.

⁹² Brad Roberts. *The Case for U.S. Nuclear Warheads in the 21st Century* (Stanford: Stanford University Press, 2016), 47-48.

⁹³ “NATO's Nuclear Forces in the New Security Environment,” NATO website: Topics, 2009, 2. That said, there is considerable doubt that Russia ever fully followed through on the Gorbachev PNI commitments.

⁹⁴ Text of Bush September 27, 1991 address.

⁹⁵ David Yost, “The US Debate on NATO Nuclear Deterrence” (London: RUSI, 2011), 1408.

⁹⁶ Interview, A1.

They were meant to deter a residual threat from the east, as the Soviet Union still existed but was in the process of dissolution. Moreover, bombs on aircraft were regarded as flexible, had enough range to reach Russian territory, allowed the Allies to participate in NATO's nuclear missions by providing the means of delivery and could, unlike missiles, up to a point be called back in the case of a false alarm or a fundamental change in the situation. In the NATO jargon at that time, B-61 bombs delivered by fighter-bombers combined in the best way the requirements of flexibility, reliability, and survivability. There was also the political or psychological motive of retaining some nuclear capabilities in Europe for the reasons of Alliance cohesion and continuity. If some weapons were to remain to avoid complete denuclearization (at least with regards to U.S. weapons in Europe), the bombs of aircraft seemed to be the best suited ones.⁹⁷

To be sure, there was no longer any need to maintain such capabilities on "strip alert," nor to keep the aircraft in question solely assigned to the nuclear deterrence role. Instead, NATO determined that these aircraft could be off in some theater flying conventional missions in support of some NATO operation or mission – as long, that is, as they could be recalled within specified timelines to take up the nuclear mission. The number of NATO's nuclear storage sites also underwent a major consolidation, reducing by 80% by 2003.⁹⁸ Hence QRA evolved into DCA, and the number of bombs and bases required for DCA began to steadily drop to the very low level maintained today, starting with a cut of 700 bombs in 1991.⁹⁹

NATO nuclear policy and force posture changes proceeded hand-in-glove with these physical reductions. By 2009, the Alliance made clear that in the new security environment it had "radically reduced its reliance on nuclear forces" and "their role is now more fundamentally political, and they are no longer directed towards a specific threat."¹⁰⁰ After the end of the Cold War, as non-strategic nuclear weapons in all other categories were being sharply reduced or eliminated altogether and nations were eager to realize a "peace dividend," an intense debate ensued on both sides of the Atlantic as to whether *any* in-theater nuclear "forward-based" posture was still required – either to balance against

⁹⁷ Karl-Heinz Kamp and Major General Robertus C.N. Remkes (USAF-ret.), "Options for NATO Nuclear-Sharing Arrangements," *Reducing Nuclear Risks in Europe: A Framework for Action*, Nuclear Threat Initiative Report, Steve Andreasen and Isabelle Williams, eds., November 17, 2011, 80-81.

⁹⁸ Yost, 3.

⁹⁹ R. Jeffrey Smith, "NATO Approves 50% Cut in Tactical A-Bombs," *Washington Post*, October 17, 1991, A28.

¹⁰⁰ "NATO's Nuclear Forces in the New Security Environment," 3.

potential Russian threats or to more generally reassure NATO European allies. By the time of NATO's Summit in Lisbon in 2010 and its adoption there of a new Strategic Concept that committed NATO to seek a "true strategic partnership" with Russia, NATO-Russia relations were at something of a high point under then-President Medvedev. President Obama had in a much-noted speech in Prague championed his nuclear elimination plan of action, and Germany, supported by Belgium and the Netherlands, called for the B61s to be withdrawn.

Many observers had assumed that the Lisbon Summit's tasking to negotiate the DDPR would result in a U.S. initiative to gain an Alliance consensus to return these remaining nuclear weapons to U.S. soil. However, the United States remained firm in its view that the presence in Europe of the B61 was still required and that Allies should step up to their responsibilities thereto via the agreed "nuclear sharing" arrangements. A year before Germany had moved to try to secure allied agreement to withdraw all remaining U.S. nuclear weapons from its soil. In the intra-party platform that brought the CDU and FDP together in a governing coalition in November 2009, Chancellor Angela Merkel yielded to the demand of her FDP Foreign Minister, Guido Westerwelle, and agreed that "in the course of developing a NATO strategic concept, we will, both in the alliance and towards the American allies, pursue the withdrawal of the remaining nuclear weapons from Germany."¹⁰¹ Three former senior U.S. or NATO officials – Frank Miller, Kori Schake and former NATO SYG George Robertson, immediately raised the alarm, saying "For Germany to want to remain under the nuclear umbrella while exporting to others the obligation of maintaining it is "irresponsible."¹⁰² Although the proposal was supported by Belgium, the Netherlands and Luxembourg, it was strongly contested by the Obama Administration and other allies.

By the time of a pivotal Foreign Ministers' meeting in Tallinn preceding Lisbon in 2010, the proposal had been abandoned. Instead, Secretary of State Hillary Clinton presented and hammered out a consensus endorsing "Five Principles" to govern NATO's future nuclear posture and policies:

1. As long as nuclear weapons exist, NATO will remain a nuclear Alliance.
2. As a nuclear Alliance, sharing nuclear risks and responsibilities widely is fundamental.
3. A broad aim is to continue to reduce the role and number of nuclear weapons while recognizing that in the years since the Cold War

¹⁰¹ Franklin Miller, George Robertson, and Kori Schake, "Germany Opens Pandora's Box," *Centre for European Reform*, February 2010, 2.

¹⁰² *Ibid.*, 1.

ended, NATO has already dramatically reduced its reliance on nuclear weapons.

4. Allies must broaden deterrence against the range of twenty-first century threats, including by pursuing territorial missile defense.
5. In any future reductions, our aim should be to seek Russian agreement to increase transparency on non-strategic nuclear weapons in Europe, relocate these weapons away from the territory of NATO members, and include non-strategic nuclear weapons in the next round of U.S.-Russian arms control discussions alongside strategic and non-deployed nuclear weapons.

Even within DCA, though, there were changes. By the time of Crimea, only six U.S. allies remained in the DCA B61 bomb delivery role (BEL, NETH, IT, GER, GR and TUR). As will be discussed in following chapter, some allies (e.g., Canada, UK) withdrew their participation, with the UK retiring and dismantling all its WE-177 nuclear bombs in 1998.¹⁰³ Others (Greece, Turkey) reportedly scaled back the level of their readiness under the posture.¹⁰⁴ DCA readiness criteria were relaxed Alliance-wide as well: In 1995, the ability to take on nuclear delivery missions for DCA aircraft was reduced from “minutes” to “weeks,” and in 2002, relaxed further to “months.”¹⁰⁵ DCA readiness levels can be relaxed or reduced due to a arrange of factors: the aircraft themselves may be deployed in another theater for conventional operations, a nation may choose to save money by halting pilot training in nuclear-weapons delivery unless required in a crisis, key equipment of software related to the aircraft’s “nuclear wiring” may be removed in “peacetime.”

3.6. Recapitulation

This review of the nuclear-sharing antecedents of the current, post-Crimean NATO DCA posture has underscored several recurring themes - themes that apply as equally to allied burden-sharing considerations related to DCA as they did to the atomic stockpile and IRBM offers, the MLF proposals, and INF:

First, the United States never employed coercion to promote broader participation. Instead, successive American administrations were content to base their nuclear-sharing planning on those allies who were *willing* to accept the U.S. warheads. As long as a *de minimus* “critical mass” of willing allies, including most notably Germany, provided a foundation for a viable forward-based non-strategic nuclear weapons posture in Europe, it has tended to view

¹⁰³ *Ibid.*, 2.

¹⁰⁴ See Note on Classification at Appendix 8.

¹⁰⁵ “NATO’s Nuclear Forces in the New Security Environment,” 3.

individual allies' decisions on whether to opt-in or opt-out of nuclear roles as voluntary or discretionary.

Second, with the exception of the UK and France, the United States drew the line on additional *independent* nuclear capabilities within the Alliance. Francis Galvin has examined in detail how in those cases where a U.S. NATO ally (e.g., Germany) took preliminary steps to acquire their own independent nuclear weapons capability, or at least declared an interest to try to do so, the United States "aggressively pursued a wide range of policies to achieve inhibition, including threats of force or abandonment, forward deployed forces, enacting sanctions, selling arms, and encouraging treaties and norms."¹⁰⁶ But in the case of allied participation in "half-way" nuclear-sharing arrangements, such as the 1957 atomic stockpile and IRBM offers or the 1960s MLF proposals, participation was viewed by the United States as welcome, though discretionary. Hence "nuclear-sharing" came to be seen as an appropriate compromise because it relieves allies from the need to develop nuclear weapons of their own and, for those who chose to participate, still allows them to be signatories to the NPT as "non-nuclear weapons states."¹⁰⁷

Third, with regards to the "force-sizing" criteria that guided the successive nuclear postures in Europe, military/operational considerations were secondary to the political imperative of possessing a tangible, if *de minimus*, capability to carry out NATO's nuclear use declaratory policy. This capability, then, was deemed essential by successive American administrations and NATO Secretaries General to maintaining the political elements of alliance resolve, solidarity and cohesion, without which deterrence would have no credibility.

Fourth, although not all allies were required or indeed expected to participate in the successive nuclear-sharing postures, consensus was required in NATO to agree each posture in principle. To win consensus on adopting and maintaining each such posture, successive American administrations needed to ensure, consistent with the "twin pillars" concept of the 1967 Harmel Report, that the successive nuclear deployments or proposed deployments were accompanied by arms control engagement with the Soviet Union, and later, Russia. This dynamic still applies today. 90% of those interviewed for this dissertation believe that absent a robust arms control agenda, including in particular the extension of the U.S.-Russian New START treaty before it expired in February 2021,¹⁰⁸ many of those allies who are still in DCA (e.g., Germany, Netherlands, Belgium, and Italy)

¹⁰⁶ Galvin, Francis J. "Strategies of Inhibition: U.S. Grand Strategy, the Nuclear Revolution, and Nonproliferation," *International Security* 40, No. 1 (Summer 2015), 11.

¹⁰⁷ Ruehle, 3.

¹⁰⁸ President Biden and President Putin on January 26, 2021 exchanged the documents that triggered the automatic 5-year extension of this important accord.

will face significant challenges in terms of domestic support in staying in the nuclear-sharing “club.”

Lastly, Germany has been and remains today a special case. The Cold War era nuclear-sharing arrangements inaugurated by Eisenhower were designed in large measure to provide a means, in the form of an alternative, of deflecting Germany’s interest during the Adenauer era in obtaining its own independent nuclear capability. As underscored by the rejection of the CDU-FDP initiative in 2010, as the largest and most politically important non-nuclear NATO ally Germany is expected to set the example when it comes to burden-sharing, and smaller allies in many cases take their cue from Germany’s decisions. 100% of those asked in interviews agreed that were Germany to withdraw from its participation in the current DCA nuclear-sharing arrangements, other participants would follow. Given that 58% of those asked felt that NATO’s DCA “club” was already at or near the *de minimis* number that equates to a viable and effective deterrent posture, this is a significant finding. A senior Obama official interviewed described the negative consequences that might ensure were Germany to withdraw from DCA in the following stark terms:

At NATO HQ, I believe there would be a particular resentment attached to German withdrawal from this mission. As German experts and some officials sometimes put it to me, they don’t see why they should be expected to pay these costs and run these risks on behalf of others. I can attest to the bitter responses this generates from those allies who stood with the Federal Republic of Germany, at significant risk, to create the prolonged stalemate that finally led to German reunification. To these individuals, the German desire to now leave the mission to others looks like they are unwilling to repay the support they were given in the Cold War.

During the Trump era, Germany was singled out for particular pressure, and indeed harassment, over the 2% issue. This, in turn, translated in German perceptions to a near-imperative to remain in the DCA program. As will be discussed in Chapter 6, had the Merkel government announced anytime between 2016-2020 that it could find no politically viable or affordable solution to getting to 2.0% by 2024, and neither could it find a politically viable and affordable solution to replacing its obsolescent Tornado DCA fleet, the negative reaction from Washington would have been particularly severe.

CHAPTER FOUR

BASELINE FOR ASSESSING NATO BURDEN-SHARING: THE “3 C’s”

Before one can reach judgments about the degree to which, and indeed whether, DCA participation constitutes a “burden-sharing” issue, it is necessary to identify the baseline against which burden-sharing assessments are now *generally drawn* within the Alliance.

4.0. Burden-Sharing in Practice at NATO

As noted in Chapter 3, from Eisenhower through Trump, successive administrations have periodically lamented and occasionally lambasted U.S. allies’ unwillingness to carry what Americans have traditionally viewed as their “fair share” at NATO. Ten years after NATO’s founding in 1949, President Eisenhower told SACEUR that he was “tired of having the whole defense burden placed on U.S. shoulders” and worried that “the Europeans are close to making a sucker out of Uncle Sam.”¹ At the end of his second term, even the generally-even tempered President Obama publicly acknowledged that “free-riders aggravate me.”² Under President Trump, the frequency, stridency and saliency of these “free-rider” complaints intensified, as focused by him on the defense spending issue under the 2014 Wales Pledge. In one notably sharp set of comments, President Trump said during a March 26, 2020 White House briefing on the COVID-19 crisis:

Some of the people that took the biggest advantage of us are our allies. If you look at NATO, the abuse that was given to our country on NATO, where they wouldn’t pay and we were paying for everybody. We were paying – now, because of me, they’re paying a lot.³

Within his administration, President Trump was not a “lone voice” in this regard:

- In remarks at the Council on Foreign Relations in late December 2019, Secretary of Defense Esper also underscored these complaints, criticizing NATO allies for not having “stepped up” to U.S. requests “for decades to increase more, to pay more for the defense, to contribute to the Alliance,” and adding:

¹ Eisenhower-Norstad Meeting, November 5, 1959, *FRUS 1958-60*, 7(1), 498.6B

² Jeffrey Goldberg, “The Obama Doctrine: The U.S. President Talks Through His Hardest Decisions About America’s Role in the World,” *The Atlantic*, April 2016.

³ “Remarks by President Trump, Vice President Pence, and Members of the Coronavirus Task Force in Press Briefing,” White House Press Release, March 25, 2020.

Our alliances are not transactional ones. Rather, they are rooted in mutual respect, common values, and a shared willingness to fight for them. There can be no free-riders. There can't be any discount plans. We're all in this together.⁴

- In remarks in front of the Brandenburg Gate in Berlin in September 2019, Secretary of State Mike Pompeo said, "If nations believe they can get the security benefit without providing NATO with the resources it needs, if they don't live up to their commitments, there's a risk that NATO could become ineffective or obsolete."⁵
- Later, during commemorations to mark the 30th anniversary of the fall of the Berlin Wall, National Security Adviser Robert O'Brien stated that "NATO is an important alliance to us, but I think the cracks that have formed in the alliance are because we have members of the alliance that aren't paying their fair share."⁶

While the tone of U.S. criticism may have been much sharper under Trump, the objective reflects a high degree of continuity with previous administrations. Indeed, despite some misperceptions to the contrary, the Wales Pledge was not a Trump Administration initiative but rather was achieved in negotiations successfully led by the Obama Administration during 2013-2014. The catalyst for this Obama initiative was first and foremost the forcefully articulated remarks made by Secretary of Defense Robert Gates in Brussels in 2011 in his last foreign policy speech before retiring. Gates noted that two decades after the fall of the Berlin Wall the United States was paying 75% of the total spent on defense by all allies and emphasized that this imbalance was "neither politically nor economically sustainable." Unless reversed, he warned, there was "a real possibility for a dim if not dismal future for the transatlantic alliance."⁷

The Wales Pledge was the first time that allies had agreed on such targets at the level of heads of state and government.⁸ The results have been impressive, as shown by the graph in Chapter 2. 2020 was the sixth successive year since the Wales Pledge was made of aggregate increased defense spending for NATO. Eleven allies are now at the 2% of GDP mark and more than half (19) are

⁴ Mark Esper, Comments at the Council on Foreign Relations, December 13, 2019.

⁵ "Pompeo Says NATO Risks Extinction Unless It Adapts to Reality," *Bloomberg News*, November 12, 2019.

⁶ "NATO Alliance Breaking Up Because Germany 'Not Paying Their Fair Share,' Trump National Security Advisor Says," *Newsweek*, November, 2019.

⁷ Robert Gates, "Remarks by Secretary Gates at the Security and Defense Agenda, Brussels, Belgium," U.S. Department of Defense News Transcript, June 10, 2011.

⁸ NATO has previously committed to try to increase each ally's defense spending by 3% and Defense Ministers have previously vowed to seek increases as a share of GDP, but Heads of State and Government had never previously committed to an increased share of GDP goal.

expected to be at that level by 2024.⁹ By March 2021, Canada and the U.S. allies in Europe had increased their defense spending by \$190 billion compared to 2016. By 2024, the figure is estimated to reach \$400 billion.¹⁰ Yet these gains have come at a cost. As a senior Trump official interviewed noted: “On the 2% Pledge, Trump has made a difference of \$100 billion, but the downside is they (the allies) are pretty shaken [and] decoupling toward the EU is pretty strong.”¹¹

But is each ally’s aggregate defense spending, standing alone, the sole measure for making judgments about “burden-sharing”? In fact, U.S. grievances with regards to allied “free-riding” – whether under Republican or Democratic administrations – have not been limited to their low level of defense expenditure, however sharply that issue may dominate the transatlantic discourse at present. Disputes have also broken out with regard to whether U.S. allies were developing and fielding the weapons and forces needed to underpin NATO strategy and whether U.S. allies were committing the weapons and forces in their national inventories to operations and missions that had been approved by the North Atlantic Council. Two examples illustrate this point:

- In March 2011, the Obama Administration debated whether to act on a UN Security Council Resolution (UNSCR 1973) authorizing Member States acting nationally or through regional organizations to take “all necessary measures” to protect Libyan citizens under threat from Qaddafi in Benghazi. President Obama ultimately decided that the United States would take the lead in a U.S.-French-British “coalition of the willing” to destroy Qaddafi’s air defenses and command and control facilities in a first phase (called “Odyssey Dawn”), but NATO would be asked to take over after just over a week of operations and carry the brunt of the military effort. As Obama said in a speech on March 28, “the United States will play a supporting role” and provide only such key “enablers” as radar jammers, intelligence, UAVs, logistics support, tankers and search and rescue assets.¹² This policy, dubbed “leading from behind” by an anonymous White House staffer, was roundly criticized by many as an abdication of America’s leadership role in NATO. But it can also be seen as an exercise in burden-sharing. By setting clear limits on what the United States was prepared to commit, the Obama Administration tried to pressure U.S. allies to “do more,” especially since the prospect of a

⁹ Confirmed to author by USNATO/ODA on May 18, 2021.

¹⁰ *Secretary General’s Annual Report 2020*, 50.

¹¹ Interview, US2.

¹² “Remarks by the President in Address to the Nation on Libya,” The White House, Office of the Press Secretary, March 28, 2011, 4. Towards the end of the NATO campaign, allied deficiencies in strike aircraft and precision-guided munitions led the United States to bring fighter aircraft back into the conflict.

failed state in Libya directly engaged their interests in Europe's own neighborhood to the south. The results, though, were not impressive in this regard. As Secretary of Defense Robert Gates later lamented, "just half provided some kind of contribution, and only eight actually provided aircraft for the strike mission."¹³

- In the months prior to the 2014 NATO Summit in Wales, the United States lobbied allies to volunteer to take turns standing "alert" for a year with a brigade-sized VJTF "spearhead force" that could be deployed to a crisis location within a week. As previously noted, in the end, seven allies made this commitment at the Summit (Italy, Spain, UK, Poland, Germany, Netherlands and Turkey). The Obama Administration's success in securing such an ample list of volunteers was aided immeasurably by its early announcement that it would not take a turn in the rotation itself, but rather only provide "enablers" for any VJTF deployment that might be required. As Secretary of Defense Ash Carter later explained: "Most of the NATO militaries had taken advantage of the post-Cold World period to shrink dramatically; now they needed to do some rebuilding."¹⁴

It is important to emphasize that "institutionalized" country-specific NATO burden-sharing assessment and "score-keeping" mechanisms established under the Wales Pledge apply to categories of burden-sharing other than just defense spending as a percentage of GDP. As agreed unanimously by the leaders at that Summit, these include one other so-called "input" performance metric: the percentage of each ally's defense budget that should be spent on research and development (R&D), procurement and infrastructure (i.e., 20%).¹⁵ It also included nine specific "output" metrics:¹⁶

1. Percentage of air, land, and naval forces that are deployable;
2. Percentage of deployable air, land, and naval forces that can be sustained in deployment;
3. Percentage of deployable air, land and naval forces deployed on NATO Operations and Missions abroad;
4. Percentage of deployable air, land, and naval forces deployed on non-NATO Operations and Missions abroad;

¹³ Robert Gates, *Duty: Memoirs of a Secretary at War* (New York: Knopf, 2014), 522. For a detailed analysis of why some allies participated in Operation United Protector and others did not, see: Tim Haesebrouck, "NATO Burden-Sharing in Libya: A Fuzzy Set Qualitative Comparative Analysis," *Journal of Conflict Resolution*, February 2016.

¹⁴ Ash Carter, *Inside the Five-Sided Box: Lessons from a Lifetime of Leadership in the Pentagon* (New York: Dutton, 2019), 275.

¹⁵ By 2024, 19 allies are expected to meet this benchmark (confirmed to author by USNATO/ODA on May 18, 2021).

¹⁶ Jordan Becker and Robert Bell, "Defense Planning in the Fog of Peace: The Transatlantic Currency Conversion Conundrum," *European Security*, 29:2 (2020), 134.

5. Percentage of deployable air, land, and naval forces deployed on in support of NATO Assurance Missions;
6. Percentage of Capability Targets allocated to that ally in accordance with the NATO Defense Planning Process (NDPP) that have been met;
7. Percentage of billets within the NATO Command Structure assigned to that ally that have been filled;
8. Percentage of billets within the NATO Force Structure Headquarters assigned to that ally that have been filled; and
9. Contribution by that ally to the Immediate Response Force (IRF) of the NATO Response Force (NRF).

Notably, though, none of the 11 “input” and “output” burden-sharing metrics covered by the Wales Pledge deal with allies’ nuclear contributions. As will be elaborated later in this Chapter, “nuclear” was simply excluded from this package of headline goals at the Summit, even though NATO policy called for the “broadest possible participation” in the Alliance’s DCA posture.

Should, then, DCA be seen as a “special case?” To answer this question, the dissertation examines several central issues. Does the U.S. approach allies on the question of DCA participation with the same attitude it approaches them on other, non-nuclear burden-sharing categories? Does the United States try to pressure or coerce allies into participating in DCA? Do those allies who opt-out of DCA see their standing within the Alliance diminished? Do those who opt-in gain extra influence? What, precisely, is the mix of benefits and costs that are central to these allies’ calculations regarding participating in DCA?

4.1. Yardsticks for Measuring NATO Burden-Sharing: The “3 C’s”

U.S. policy on Alliance burden-sharing during the last two presidencies has generally been centered on what NATO Secretary General Stoltenberg has called “the 3 C’s” – cash, capabilities, and contributions. As operationalized by Stoltenberg, “cash” equates to what each ally spends on defense (an input metric), “capabilities” reflects the extent to which each ally converts that spending into fielding deployable capabilities (an output metric), and “contributions” measures the degree to which it actually contributes those forces to agreed NATO operations and missions (another output metric). “Cash” purchases tomorrow’s “capabilities,” which in turn support ally’s “contributions” to operations the day after tomorrow. For each of these three inter-related categories, NATO has agreed formal mechanisms that allows allies to measure and if appropriate challenge each ally’s performance compared to the others.

Jordan Becker and I have argued elsewhere that “3 C” inputs are highly predictive of indicative outputs, such as deployability, sustainability and

contributions to two representative operations: ISAF and Libya.¹⁷ As shown in the below table, while overall defense spending as a share of GDP is positively correlated with each of these four output measure, “3 C’s” spending is positively correlated and significant at the 1% level – a strong indicator that the relationship between inputs and outputs is not accidental:

	Input	Input	Output	Output	Output	Output
Key Variables	Def. spending	3 C’s spending	Libya	Deployability	Sustainability	ISAF
Def. spending (% GDP)**	1					
3 Cs spending***	0.8976*	1				
Libya contributions	0.4056	0.4787*	1			
Deployability	0.161	0.3045*	0.4756	1		
Sustainability	0.1412	0.3913*	0.6351*	0.4853*	1	
ISAF Contributions (per capita)	0.3438*	0.4343*		0.3667*	0.5741*	1

* Statistically significant at the 1% level.** 1-year lag.*** O&M+Equipment/GDP

Table 2: NATO Burden-Sharing Metrics: Inputs and Outputs

The relationships visualized in Figure 2 below are reassuring. Even as security communities struggle to identify and measure ever-evolving capability requirements, inputs are a reasonable proxy for those outputs. Panel A visualizes a strong, positive correlation between NATO “3 C’s” spending and deployability, which one authority – the European Defense Agency (EDA) - measures as the ratio of “(Land) Forces troops structured, prepared and equipped for deployed operations (the NATO 50% usability target)” to total force size. Panel B shows that the same is the case for sustainability, which the EDA calls a subset of deployability and defines as the share of “(Land) Forces troops undertaking or planned for sustained operations, including those on high readiness standby (the NATO 10% usability target).” Panel C demonstrates that “3C’s” spending is also predictive of a more concrete measure of engagement – troop contributions to NATO’s longest and largest “out of area” mission as

¹⁷ Jordan Becker and Robert Bell, “Defense Planning in the Fog of Peace: The Transatlantic Currency Conversion Conundrum,” *European Security*, 29:2 (2020), 125-148. In this analysis we employ statistics compiled from the European Defense Agency for the first two outputs, NATO data for the third, and metrics applied using fuzzy set qualitative comparative analysis methodology by Tim Haesebrouck, a scholar at Ghent University, for the fourth. I am particularly indebted to Jordan for his assistance support for and encouragement of this dissertation.

recorded by NATO. Finally, Panel D visualizes that “3C’s” spending is also predictive of contributions to a specific NATO operation (Unified Protector in Libya).

The performance of each NATO ally against these measures is shown below:

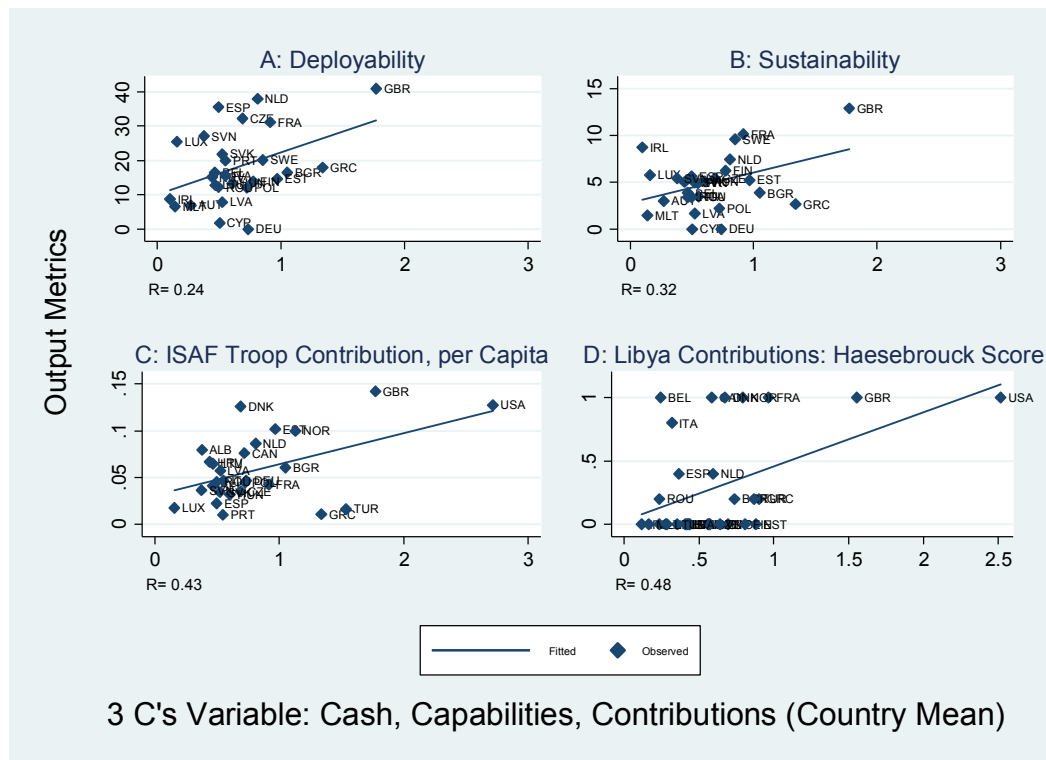


Figure 8: 3 C’s Variable and Allied Rankings

4.1.0. Cash

For SYG Stoltenberg, “cash” equates to the now politically salient commitment by each ally to strive by 2024 to be spending at least 2% of its Gross National Product (GNP) on defense, and to commit 20% of that on research and development, procurement, and infrastructure. Notably, the DIP provides “report card”-like tracking systems for reviewing each ally’s performance in meeting this commitment annually at a Defense Ministerial and at each Summit, as shown by the most recent accounting in the graph below. In this manner, NATO ensures that pressure by means of “naming and shaming” can be brought to bear on those allies who are falling short. Since 2014, the European allies in

NATO have increased their defense spending by \$190 billion, and 19 now meet the 20% R&D goal, compared to 6 at Wales.¹⁸

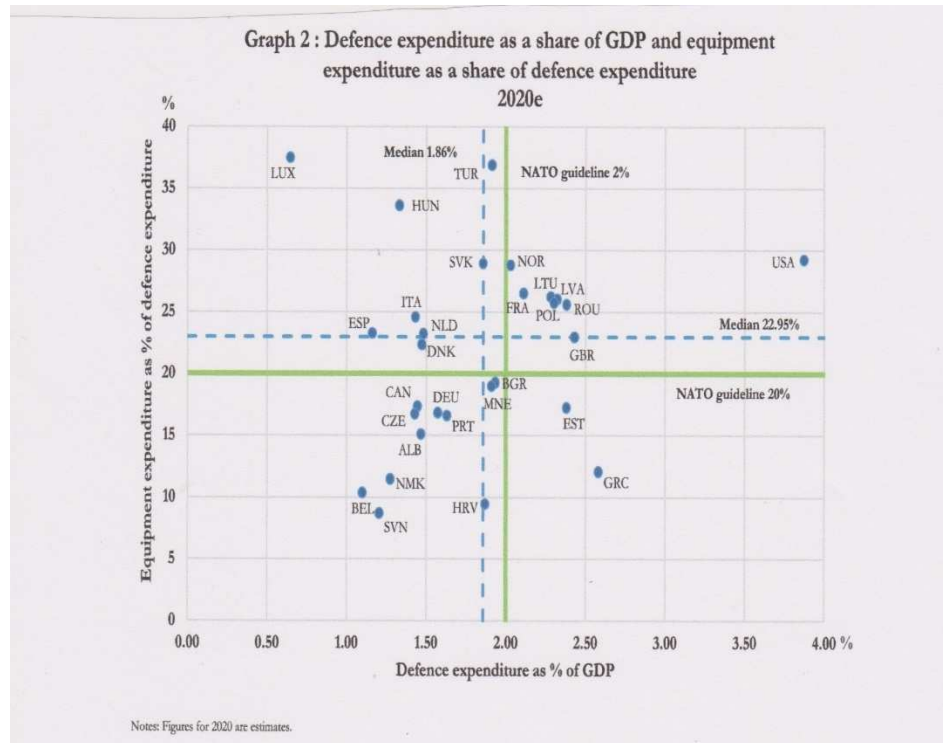


Figure 9: Allied Rankings on 2% and 20% Goals

On this chart, having your country appear in the upper right-hand quadrant is good; being in the lower left-hand quadrant is bad. Thus the exemplary nations when it comes to “fair burden-sharing” on the “Cash” “C” are the United States, the UK, Romania, Latvia, Lithuania, Poland, France and Norway, and the nations most vulnerable to “free-riding” criticism are Belgium, Slovenia, North Macedonia, Albania, the Czech Republic, Croatia, Portugal, Canada, Germany, Montenegro and Bulgaria.

4.1.1. Capabilities

Despite these positive correlations with “inputs” (i.e., “cash”), NATO does not leave securing necessary “capabilities” and “contributions” to chance. Since 2009, it has employed an updated version of its signature NATO Defense Planning Process (NDPP) for allocating Capability Targets (CTs) among the allies. These CT allotments are made in accordance with the principles of “fair burden-sharing” and “reasonable challenge.” The latter is intended specifically to

¹⁸ Secretary General’s Annual Report 2020, 50.

challenge allies to go the extra mile beyond what is simply “fair” in terms of burden-sharing. Consistent with these principles, the NDPP includes mechanisms, such the 30-nation peer review sessions called “Multilaterals,” at which all allies sit in judgement of the subject ally’s acceptance, or not, of CT assignments.

These “Multilaterals” feature the only instance in all of NATO’s activities wherein an ally can be *compelled* by the others to assume a burden, its normal veto rights under the consensus rule notwithstanding. Pursuant to the so-called “consensus minus one” rule, an ally can be (and has been) allocated a specific Capability Target (CT) that it has refused to accept if all other allies agree that refusal is inconsistent with the agreed principles of “fair burden-sharing” and “reasonable challenge.”

For example, in 2016 Canada was not willing to accept a CT for making a certain number of aerial refueling aircraft available for NATO operation. At Canada’s multilateral examination, all other allies agreed that this refusal was neither fair nor reasonable since Canada needed tankers for its own national security interests in projecting power and presence across its vast northern territory and into the Arctic Region. The refueling CT was therefore imposed on Canada under the “consensus minus one” procedure.¹⁹ In this setting, the 9 “output metrics” included in the DIP, which relate to how successfully allies are in converting their increased defense spending into deployable and sustainable combat systems, are useful indicators when framing burden-sharing arguments. Although these metrics are not publicly released unless the country in question so chooses, the data features prominently in the classified “multilaterals.”

¹⁹ The US later tried but failed to impose Aegis sea-based BMD-related CTs on certain allies. (Personal experience of the author.)

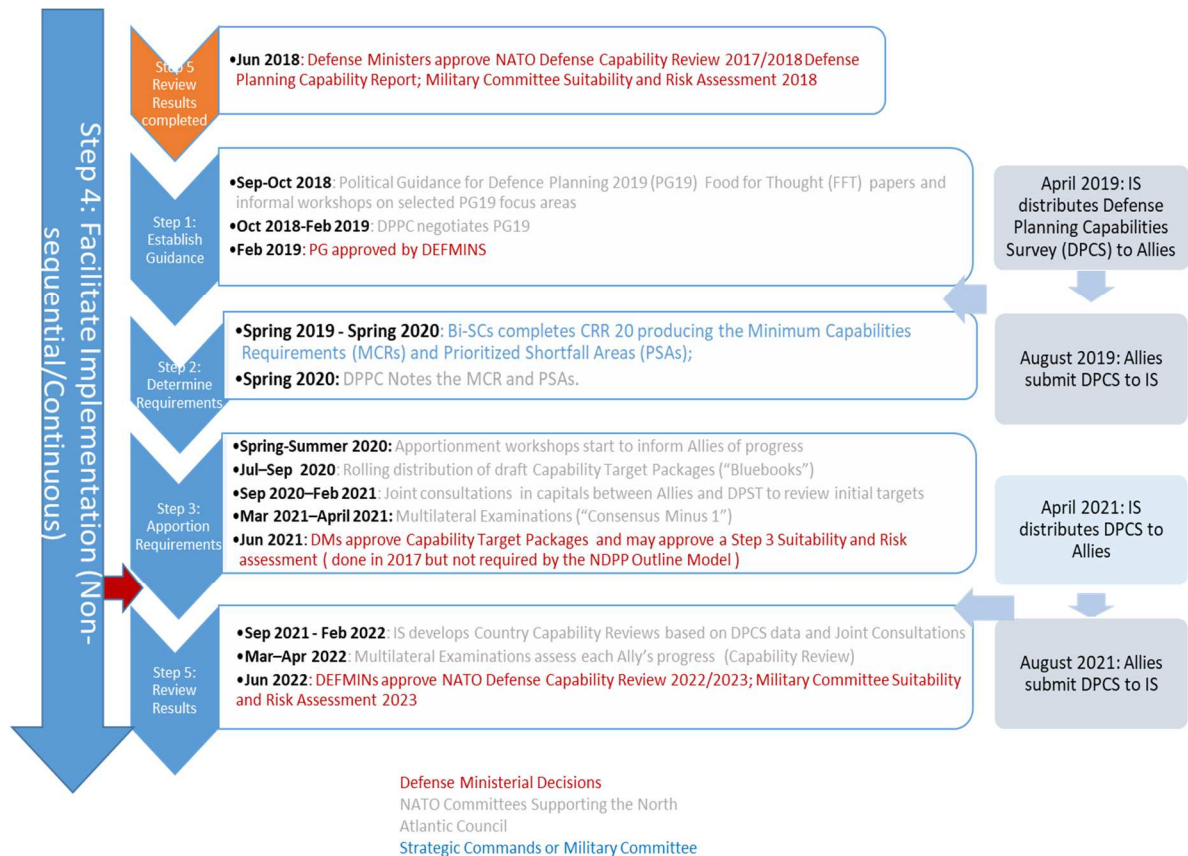


Figure 10: NATO Defense Planning Process, 2018-2023

Figure 5 depicts the full four-year NDPP cycle as it is being followed from 2018 to 2022. The five key steps of the NDPP are to establish political guidance; to determine the requirements to meet the ambitions identified in the Political Guidance; to apportion those requirements among allies and set capability targets; to facilitate implementation; and to review results. In February 2019, NATO Defense Ministers completed Step 1 by approving Political Guidance 2019 (PG19), setting in place the overarching directions needed for the NDPP cycle that is now underway.²⁰ Pursuant to this cycle, specific military requirements for each type of warfighting capability in the form of CTs are to be derived under NDPP Step 2 and "apportioned" by Defense Ministers among the 30 Allies under Step 3 in June 2021.²¹

Establishing Political Guidance is an appropriate first step for a process designed to convert grand strategic vision gleaned from documents like the Strategic Concept and summit declarations into capabilities supporting military strategy. Two key military documents shape this formal Political Guidance – the *Strategic*

²⁰ Interview, N1.

²¹ Interview, US2.

Foresight Analysis, which visualizes the future security environment, and the subsequent *Framework for Future Alliance Operations*, which seeks to describe how NATO forces can achieve desired strategic effects in this future environment. Both reports are prepared by NATO's Allied Command Transformation, headquartered in Norfolk, Virginia. While the *Strategic Foresight Analysis* and *Framework for Future Alliance Operations* are available to the public, the Political Guidance remains classified. Together, the two unclassified reports provide military advice and inform the NDPP.

NATO's Defense Policy and Planning Committee negotiates Political Guidance, reinforced by the Military Committee throughout the process. The Military Committee also provides initial formal input for the Political Guidance, based on consensus among its members (i.e., the Military Representatives of their national Chiefs of Defense Staff) on the implications of the *Strategic Foresight Analysis* and *Framework for Future Alliance Operations*. Political Guidance is thus a (perhaps the) key component of NATO's bridge between political purpose and military instruments.

Once the NAC, consisting of Permanent Representatives of allied Heads of State and Government, agrees the Political Guidance, national defense ministers note the agreement, and NATO's Strategic Commands (Allied Command Operations and Allied Command Transformation) determine the requirements to implement it in step two of the NDPP. This means, in practice, generating an inventory of military instruments (capabilities) the Strategic Commands consider the minimum set required to achieve the ambitions identified in the Political Guidance. NATO uses the term "Minimum Capability Requirements" (MCRs) to refer to this set of capabilities. The NAC expects the MCRs to represent unfettered military advice shaping national capability targets.

Central to the MCRs is the concept of risk. The minimum capabilities required depend on the extent to which planners are willing to accept risk. For example, the United States formally clarified to allies in the course of the last NDPP cycle that should a crisis arise in the NATO Treaty Area a significant portion of its capabilities and capacity might be committed to Combatant Commands in other regions and hence not available to NATO. Nonetheless, allies did not resolve to field those capabilities themselves. Instead, they simply accepted the risk that the capabilities the U.S. identified would not be available in the European theatre.²²

Risk is formally addressed in a document somewhat awkwardly titled the "Suitability and Risk Assessment" (SRA) report. It is initially provided by the Strategic Commands to the Military Committee, which develops an agreed

²² Interview, US1.

assessment. ‘This includes an assessment of the risks posed by any shortfalls in NATO’s forces and capabilities, as well as an assessment of the suitability of Allies’ plans to enable NATO to meet its Level of Ambition, and a list of any Main Shortfall Areas.’ The SRA is part of step 5 of the NDPP but critically informs the other steps.

Step 3 of the NDPP is the apportionment of these Capability Targets – primarily to allies but also to NATO itself in the form of common-funded capabilities. Step 3 is the point in the NDPP when allies can affect one another’s defense planning as noted in Figure 1 above. In these sessions, the United States places particular emphasis on the agreed “rule” that no member should provide more than 50% of any required capability. While those processes remain subject to national sovereign control, this level of multilateral engagement in national defense planning is historically unique. All allies agreed their capability target packages during the 2015-2019 NDPP, as well as to submit credible national plans for the implementation of the Wales Pledge. These two facts are indicative of the role the NDPP plays, alongside the Wales Pledge, in bridging gaps between alliance strategy, the allies’ defense planning, and U.S. demands for greater burden-sharing.

As Figure 4 indicates, NATO continually executes step 4 of the NDPP: facilitating implementation of national capability targets. Step 5 takes place formally every two years – twice in each NDPP cycle. Allies review one another’s defense and financial plans and produce “Defense Planning Capability Reviews,” which are at the discretion of each ally to declassify. As noted, Denmark, for example, in 2015 declassified its Defense Planning Capability Review on occasion, offering insights into NATO’s ‘output metrics.’ A look at the metrics should make it clear that they have little to do with strategic effect; they are merely alternative ways of evaluating the extent to which a particular ally is bearing the burden of the collective actions that NATO has set forth for itself.

4.1.2. Contributions

Finally, with regards to the third “C” - “contributions” - NATO relies on an equally elaborate process to garner the forces and systems from across the Alliance needed to successfully execute and sustain a mission or operation that has been agreed at the political level in the NAC. The chart below outlines the six phase encompassing a major operation from day-to-day monitoring of developments that have the potential to become crises in which the Alliance’s interests might be engaged to the termination stage where the NAC directs the Military Authorities to wind down the operation.

Phase	Action	Authority
1	Situational Awareness of Potential/Actual Crisis	SHAPE
2	Strategic Assessment of Crisis	SACEUR to NAC
3	Military Response Options (MRO) development	NAC direction to SHAPE
4	Strategic Plan	SHAPE prepares NAC reviews
4a	CONOPS (inc. MRO down-select and Force Requirements)	NAC directs SACEUR to prepare via NID
4b	OPLAN & Force Generation	SACEUR to NAC for approval D/SACEUR
5	Execution	NAC authorizes via NED SACEUR issues ACTORD Ops CO commands ops
6	Transition	Ops CO SACEUR reports ops termination to NAC

Table 3: NATO Strategic Level Joint Operations Planning Process

For purposes of this dissertation, the focus is on Phase 4b, in which the Deputy SACEUR (D/SACEUR) convenes an on-call or off-cycle Force Generation Conference to ensure the forces made available to the Operational Commander are adequate to the mission that has been tasked. At these meetings, individual allies are pressed to provide the mission with specific forces and capabilities that they maintain in their own national defense postures. The overall Alliance capability requirement for a formally-approved NATO Mission is defined by a Combined Joint Statement of Requirements (CJSOR). Normally, the national capabilities that D/SACEUR requests against the CJSOR baseline align with the specific CTs that each ally has been assigned pursuant to the NDPP and which, therefore, are presumed by NATO to be available to it if needed.

If a Force Generation Conference fails to secure offers adequate to the task assigned, D/SACEUR can engage directly with other countries' military leadership, and he has at his disposal a range of escalatory options, including engaging SACEUR, the Chairman of the Military Committee (CMC), SYG and, ultimately, the U.S. Secretary of Defense (SecDef), the Chairman of the Joint Chiefs of Staff (CJCS), or even the President to bring additional pressure to bear

on a reluctant ally. In my experience, it was not uncommon for SecDef to use a separate bilateral meeting on the margins of a Defense Ministerial in Brussels, or for CJCS to use a Chiefs of Defense Staff (CHODs) meeting there, as venues for “naming and shaming” when the United States believed that a particular ally was shirking its responsibilities, either by not joining a NAC-approved operation, not committing adequate forces, or not signing up for the more dangerous aspects of a Mission.

In the United States, all deployable forces are managed through a bi-weekly process that revolves around what is called the “SDOB” – the Secretary of Defense’s Orders Book. Scarce capabilities that are in high demand, such as theater missile defense batteries, special forces, or aircraft carrier task forces, are routinely fought over, both between the U.S. Combatant Commands (e.g., Central Command versus Pacific Command) and between NATO and the United States (e.g., when SACEUR requests assets for a NATO mission that U.S. military authorities believe are needed to remain committed to a U.S. national mission). As a result, when a SecDef at a Defense Ministerial or a CJCS at a CHODs conference leaned on an ally or allies to provide a specific capability for an approved NATO operation, it was usually because SecDef had decided via the SDOB that the matching U.S. capability would remain in U.S. hands.

A similar process is followed at NATO to sustain an approved operation over many years. For example, NATO has been engaged as an Alliance in Afghanistan (ISAF and RSM) since 2004, in Kosovo (KFOR) since 1999, and in Iraq (NMI) since 2018. Other on-going operations that must be resourced annually include Baltic and Black Sea Air Policing (known officially as “Air Policing Area North” and “Air Policing Area South,” respectively), the Iceland Air Sovereignty Mission, the four NATO Standing Naval Forces, the NATO Response Force (including the VJTF component), NATO Support (with TMD deployments) to Turkey, NATO Support to the African Union, and the NATO Integrated Air and Missile Defense posture.²³

Each June, SHAPE convenes a Global Force Management and Manpower Conference (CFM&MC) to “fill” the CJSORs that SHAPE has prepared for all Missions and to fill other operations for the following year. Often Force Sensing Conferences are called by D/SACEUR in advance of the GFM&MC, with each ally represented by its National Military Representative (NMR) at SHAPE, to get a “preview” of what NATO might expect to hear at the annual GFM&MC. After all allies have signaled their preliminary “bids” for these operations, D/SACEUR issues letters to each reflecting what each ally has offered and what additional commitments might reasonably have been expected to have been offered. The D/SACEUR letter is typically reinforced by a letter from the SYG, and by senior

²³ See Appendix 6 for more detail.

NATO leaders at Defense Ministerials and CHODS conferences in late May or early June. At the global force management conference itself, behind the scenes “horse-trading” is not uncommon, with an ally announcing, for example, that it is willing to increase its commitment to one ongoing operation if another ally will take over some of its role in another operation. Sometimes, an ally arrives at the meeting and announces “bad news;” i.e., that it has decided to pull out of a particular mission entirely.²⁴ A good example was Canada’s decision in to cease its combat role in ISAF, leaving the United States, the UK, Denmark and other allies and partners to carry the burden of the fighting. After the GFM&MC, final “Acceptance Letters” are sent to each ally, and those letters, then, become the baseline for the arm-twisting that follows.²⁵

Consistent with NATO’s normal consensus rule, no ally can be compelled to join an operation or to offer a specific range of capabilities. However, neither can any ally be spared from burden-sharing pressure campaigns when NATO, the institution, or the United States, as leader of the Alliance, deems that ally to be guilty of burden-shifting or free-riding. To illustrate: when Defense Ministers arrive in Brussels for twice-annual meetings, they find placed in front of them so-called “place-mats” depicting, in color, which allies are contributing to which Missions. No Minister wants to see a place-mat where his or her nation’s flag is not depicted. At the least, that Minister wants to keep to a minimum the number of such “empty” place-mats. This is just one of many forms of “naming and shaming” on burden-sharing at NATO. Two examples are shown below, for national contributions to the missions in Afghanistan (Resolute Support Mission (RSM)) and Kosovo (Kosovo Force (KFOR)), respectively.

²⁴ Interview, US2.

²⁵ *Ibid.*



Figure 11: Allied Participation in Resolute Support Mission (Afghanistan)



Figure 12: Allied Participation in KFOR Mission (Kosovo)

On February 15, 2021, SYG Stoltenberg announced at the Defense Ministerial meeting that he would soon propose a change in the eligibility rules for the NATO common-funded Military Budget (MB) that would allow some portion of the cost of NATO operations and other deployed activities to be paid by all 30 members, rather than having only those members who actually contribute forces foot the bill.²⁶ Citing such operations and deployments as air policing and the forward-deployed EFP battalions, the Secretary General argued that: “It will be fair if the country that deploys troops doesn’t cover all the costs.” Expanding the MB in this fashion has historically been opposed by France, so seen whether it will win consensus this time.

4.2. Exemption of DCA from the “3 C’s”: Nuclear Realities

In the case of DCA, though, an ally’s decision whether to opt-in or opt-out of this key program is *not* subject to any of the “3 C’s” burden-sharing “enforcement” mechanisms. Although NATO has agreed at the Head of State level the Alliance’s nuclear deterrence now “*relies on*” this posture, DCA participation is *not* one of the “output” metrics included in the Wales Pledge. No CTs for DCA nuclear-delivery capabilities are either identified or allocated under the NDPP. As one senior Trump official interviewed explained: “There is no equivalent to Wales. This is not a requirements-based mission. ... DCA is bottom-up and voluntary.”²⁷ Indeed, this official even commented that “it is frowned upon to point out gaps.” A NATO official interviewed agreed, saying that the number of DCA aircraft “doesn’t matter as long as we can deliver one bomb.”²⁸ Another senior NATO official interviewed “could not say” that the Secretary General or Deputy Secretary General had ever engaged eligible but non-participating allies to join DCA, calling it “a matter of some delicacy.”²⁹ A senior Obama official interviewed said, “In my experience, senior military leadership was essentially never actively engaged on this matter.”³⁰

Moreover, except for its central NATO Nuclear Command, Control and Communications (C3) system, which is paid for via Common Funding to which all allies contribute their assigned cost share,³¹ the resourcing of NATO’s nuclear-sharing arrangements is the responsibility of the United States and those allies who agree to host B61 nuclear bombs on their soil and maintain dual-capable aircraft ready and able to deliver them. Securing DCA contributions has never

²⁶ John Vandiver, “NATO Chief Wants to Change Who Pays for Key Mission,” *Stars and Stripes*, February 16, 2021.

²⁷ Interview, US2.

²⁸ Interview, N1.

²⁹ Interview, N1.

³⁰ Interview, US1.

³¹ Interview, US2.

been subject to a Force Generation Conference or included in a CJSOR. No DCA “place-mats” showing the flags of participating allies are put in front are placed in front of Defense Ministers when they gather twice annually in Brussels. No planning for nuclear strikes employing DCA is allowed by SHAPE. NATO has no agreed nuclear employment doctrine.³² Nuclear-related personnel slots within the NATO Command Structure (NCS) are filled on a volunteer basis by the allies, and rather than pin down the exact number of slots required, there is simply a notation that the manning “needs to be robust.”³³

Perhaps most telling, as previously noted, as a matter of public policy, NATO neither confirms nor denies whether an individual ally has B61 nuclear bombs stored at an airbase on its soil. This complicates public understanding of and possible support for the mission, though the details concerning numbers of bombs and locations where they are stored are widely known, often cited (including in parliamentary debates (by those opposed, that is)), and commonly seen as one of NATO’s “worst kept secrets” – or what the French call “un secret de Polichinelle.”³⁴

Extensive Interviewing conducted pursuant to this dissertation indicate that the essentially *discretionary* nature of DCA participation is recognized by the senior-most officials who lead the Alliance. When asked whether they thought the United States under either the Obama or Trump Administrations has pressured or tried to coerce those allies that have chosen not to participate in DCA to do so, only 5% of those U.S., allied, and NATO senior officials interviewed answered “yes.” 80% answered “no” and another 14% replied that any pressure was at best “general” or “indirect.” Asked whether they believe these five allies face “adverse consequences” for “opting out,” 95% answered “no.” Indeed, only 12% of those asked believed that most senior U.S. national security officials even *knew* which of the 11 allies were in DCA and which were out.

One former SACEUR interviewed said: “I didn’t think they felt pressured. It was the furthestest thing from their minds. This was an issue that was settled in the past.”³⁵ Another former SACEUR interviewed said: “As SACEUR, I often pushed allies to spend more on their defense budgets, deploy more troops to Afghanistan, contribute to Libya, etc., but I do not recall pushing any of the allies to participate in nuclear deterrence, per se.”³⁶ A senior Obama official interviewed maintained that when it came to allied participation in DCA,

³² Interview. N1

³³ *Ibid.*

³⁴ In recent year, the Netherlands has pushed hard for greater transparency in this regard, but that initiative has not found much support at NATO or in Washington.

³⁵ Interview, N2.

³⁶ Interview, N2.

Washington was basically “playing defense,” adding: “I was happy we had a critical mass of participating allies, which had to be held on to.”³⁷ Another senior Obama official interviewed agreed, saying: “I do not remember encouraging anyone.”³⁸ A senior NATO official interviewed also concurred, saying it was his impression that the U.S. view was: “Let it be, as is.”³⁹ A senior Trump official interviewed agreed that in Washington and Brussels, allied participation in DCA was viewed as discretionary, adding: “the focus is to take those *who do now participate* and continue to develop their capabilities while raising NATO “nuclear IQ” generally through Table Top Training Exercises (TTXs) at the MoD level and with exercises [such as STEADFAST NOON].”⁴⁰ Another senior Trump official interviewed also agreed, saying flatly: “We don’t see non-DCA participation as ‘free-riding’.”⁴¹ Another senior Trump official interviewed also agreed, explaining that “all policy is about maintaining what we’ve got.”⁴²

The summary conclusions of these interviews are presented below:

Question	# Asked	# Answering “Yes”	# Answering “No”	# Answering “Other”
Does US pressure allies choosing not to be in DCA to participate?	37	2	30	5 (“only indirectly”)
Do non-participants face adverse consequences?	38	0	36	2 (“only consequence is less influence”)
Do you think most senior NATO officials engaged in national security matters know which eligible and capable allies are “in” DCA and which are “out”?	25	3	16	6 (only some, esp. NATO specialists)

Table 4: U.S. Policy Concerning Allies’ DCA Participation⁴³

³⁷ Interview, US1.

³⁸ Interview, US1.

³⁹ Interview, N2.

⁴⁰ Interview, US2.

⁴¹ Interview, US2.

⁴² Interview, US2.

⁴³ See Appendices 2 for details.

This dissertation contends that DCA's exemption from these burden-sharing measurement and enforcement mechanisms reflects three overarching “nuclear realities”:

First, from the dawn of the Atomic Age, nuclear weapons and nuclear warfare have been and still are regarded by all NATO member states, including the United States, as *fundamentally different in character* than any other weapons or warfighting in any other military/operational domain. This is due both to their enormous destructiveness and the profound moral and ethical issues associated with their possession and threatened use.⁴⁴ A former SACEUR interviewed described this perspective in the following way:

I believe nuclear weapons area “special category” and not subject to the normal push of the Alliance. This seems sound to me given the extreme sensitivity about nuclear weapons in certain countries, and I’d rather see us expend political capital on the conventional programs. Denmark and Norway, for example, are super conventional warfighting participants, but choose to opt out on nuclear weapons. I’m fine with that. Spain, Canada, and Portugal need to step up their game overall, and I’d rather see them building more frigates or other conventional systems or platforms.⁴⁵

NATO Deputy Secretary General Rose Gottemoeller struck a similar theme in a 2019 speech, saying: “Nuclear weapons would never be reached for in a routine manner. NATO allies have also been clear that nuclear weapons are unique. They are unique.”⁴⁶ This characterization of “uniqueness” has in turn given rise to what is commonly referred to as the “nuclear use taboo” – the view that “the world has gradually developed a consensus that nuclear weapons are so destructive and abhorrent that it would be unacceptable to use them.”⁴⁷

As early as 1956, President Eisenhower told Congressional leaders that: “War up to now has been a contest,” but with “nuclear missiles, it is no longer a contest , it is complete destruction.”⁴⁸ President Reagan captured this sentiment cogently

⁴⁴ Chemical and biological weapons have a similarly abhorrent status, but their possession and/or use has been banned by treaties.

⁴⁵ Interview, N2.

⁴⁶ Rose G. Gottemoeller, Oslo speech 2019, NATO Press Office, 2.

⁴⁷ Tannenwald, Nina. “The Vanishing Nuclear Taboo? How Disarmament Fell Apart.” *Foreign Affairs*, Vol. 97, No. 6 (November/December 2018), 18. Tannenwald argues that due to a range of factors (Russia’s increased aggressiveness under Putin, the termination of most arms control accords, the policies of the Trump Administration as articulated in its 2018 Nuclear Posture Review, etc.), “the world “risks a future in which the nuclear taboo, a hard-won norm that makes the world a safer place, is in retreat.” *Ibid*.

⁴⁸ Trachtenberg, 184.

when, in his 1984 State of the Union address, he said, “A nuclear war cannot be won and it must never be fought.”⁴⁹ Or, as the Obama Administration stated in its 2010 Nuclear Posture Review: “It is in the U.S. interest and that of all other nations that the nearly 65-year record of nuclear non-use be extended forever.”⁵⁰ Support for this view is also widespread within the IR academic community. As Kenneth Waltz once observed, drawing upon the title of Bernard Brodie’s landmark book at the dawn of the nuclear age, “Nuclear weapons are not relative but absolute weapons.”⁵¹

Yet, as Francis Galvin has observed, “the threat to use these weapons in a variety of scenarios – including many that do not involve an attack upon the United States or an adversary’s use of nuclear weapons – has been the backbone of American grand strategy for decades.”⁵² Galvin has also observed that while at times “Washington has pursued policies of nuclear abstinence, highlighting how unusable and even repugnant nuclear weapons are and encouraging other states to eschew their benefits,” at other times, “the U.S. government pursues nuclear activism by treating nuclear weapons as the most important element of its grand strategy.”⁵³ Galvin notes that many times, “American grand strategy has been to pursue *both*, seemingly incompatible, positions.” (emphasis added)⁵⁴

This is particularly the case with the extension by the United States of its nuclear guarantee to NATO, as underpinned by the long-standing U.S. *unwillingness* to foreswear “first use” of nuclear weapons in the event of an “armed attack,” or in recent years, its functional equivalent (e.g., an economically crippling cyber attack). As it applies to possible nuclear-armed adversaries (or nations in violation of their obligations to the IAEA under the NPT), this doctrine can best be described as a “*no no-first-use*” doctrine. As stated in the 2019 Joint Publication on “Nuclear Operations,” “a nuclear weapon could be brought into the campaign as a result of the perceived failure in a conventional campaign, potential loss of control or regime, or to escalate the conflict to sue for peace on more-favorable terms.”⁵⁵

President Biden, as Vice President in January 2017, expressed his (and President Obama’s) *personal* view that the “sole purpose” of nuclear weapons should be to

⁴⁹ President Reagan, State of the Union address, 1984.

⁵⁰ 2010 Obama Nuclear Posture Review.

⁵¹ Waltz, Kenneth N. “The Origins of War in Neorealist Theory,” *The Journal of Interdisciplinary History*, Vol. 18. No. 4 (Spring 1988), 627. Waltz took this phrasing from the title of Bernard Brodie’s landmark 1946 book, *The Absolute Weapon*.

⁵² Galvin, Francis J. “Rethinking the Bomb: Nuclear Weapons and American Grand Strategy,” *War on the Rocks*, 2009.

⁵³ *Ibid.*

⁵⁴ *Ibid.*

⁵⁵ 2019 Joint Publication 3-72, V-3.

deter an adversary's "first use" of such systems.⁵⁶ Nonetheless, it is not likely that as President he will, as an early priority, press NATO to abandon its long-standing policy of threatening to use nuclear weapons first were an ally's sovereignty and independence were to be at risk in a future conflict. NATO concedes that the prospects of such a "first use" are "remote;" nonetheless, it has refused for over 7 decades to rule it out. As then-Secretary of Defense McNamara said about NATO "first use" in 1962:

NATO can no longer expect to avoid nuclear retaliation in the event that it initiates their use. Even a local exchange could have consequences for Europe that are most painful to contemplate. Further, such an exchange would be unlikely to give us any marked military advantage. It could rapidly lead to general nuclear war. To be sure, a very limited use of nuclear weapons, primarily for purposes of demonstrating our intent and will to employ such weapons, might bring Soviet aggression to a halt without substantial retaliation, and without escalation. *This is a next-to-last option we cannot dismiss.* But prospects for success are not high."⁵⁷

A decade later, U. S. National Security Advisor Henry Kissinger voiced his skepticism that NATO's "first use" doctrine made sense:

I've been trying to get a handle on the use of tactical nuclear weapons in Europe ... I'm not saying, though, that we won't consider using them ... I've never seen a concept about the use of these weapons. I don't know what they are designed to accomplish. Accordingly, I think this is a big lacuna in our plans.⁵⁸

Nevertheless, "first use" remains a central pillar of NATO's nuclear policy.

The **second** consideration reflects the reality that if a crisis or conflict with Russia in Europe should reach the stage where the United States asked NATO to agree to authorize SACEUR to conduct one or more DCA nuclear strikes, and consensus could not be attained in a timely manner, the United States retains a range of unilateral "non-strategic" and "strategic" nuclear strike options. The former now includes the option of using U.S. Air Force F-15E fighter aircraft to carry out strikes with the B-61 bombs in Europe or employing a low-yield SLBM warhead deployed on a U.S. submarine in the eastern Atlantic Ocean or the Mediterranean Sea. In addition, with the constraints of the INF Treaty no longer in effect, a new U.S. nuclear-armed sea-launched cruise missile (TLAM-N) is

⁵⁶ Brookings Speech, January 11, 2017.

⁵⁷ "Defense Policy: Statement Made by Secretary McNamara at the NATO Ministerial Meeting in Athens," NATO Document C-M (62) 55, May 5, 1962. (emphasis added)

⁵⁸ *FRUS 1969-76, XXXIV, doc. 219*, Minutes of DPRC Meeting, 21 July 1972, 992.

under development. These weapons systems will presumably be deployed on submarines, frigates and cruisers under the command of the U.S. 4-star officer who is SACEUR acting instead in his dual-hatted capacity as Commander of U.S. European Command (EUCOM). In this capacity, the U.S. Commander of EUCOM could direct nuclear strikes if so ordered by the Secretary of Defense following authorization by the President, without being subject to the veto power possessed by all our allies within NATO.

As early as 1954, Eisenhower had told the Chairman of the JCS, Admiral Radford, that there could be no doubt as to what the United States would do if an ally tried “to impose a veto on actions which the United States considers essential to its security or the security of its armed forces exposed to attack.”⁵⁹ While any such strike would not carry the same political “weight” as a multilateral DCA nuclear strike that had been authorized by all 30 NATO allies, it would unmistakably signal U.S. resolve.

This, then, takes us to the *third* consideration that helps explain why the United States and NATO essentially view DCA participation as discretionary. NATO’s forward-based B61 bomb posture serves an important *political* purpose in reassuring allies of the bona fides of the United States’ Article 5 commitment. Its basic rationale is not to be able to wage a sustained nuclear conflict with Russia involving repeated strikes by DCA formations, but rather to present the threat of a “one off” employment that would not only underscore the full Alliance’s solidarity and determination to resist aggression but also raise profound risks of escalation to the strategic nuclear level. As noted, NATO Secretary General Manfred Woerner confirmed in 1988 that the General Purpose Guidelines for the possible use of theater nuclear weapons in defense of the Alliance:

Finally resolved the debate between those who argued that theater nuclear forces could be used decisively as a means of winning a conflict in Europe, and those who saw their role as essentially one of conveying a political signal: a political signal with a powerful military impact, but nevertheless one intended to convey a clear message to the Soviet leadership about NATO’s resolve. The Guidelines unambiguously support this latter elaboration of the strategy.⁶⁰

In this sense, DCA is best understood not as a “warfighting” capability but rather as a “guarantor of linkage.” The so-called “non-strategic” B61 nuclear system is principally intended to “connect” NATO’s conventional defenses with the hugely more massive and escalatory retaliatory options prospectively available from

⁵⁹ Trachtenberg, 166.

⁶⁰ Secretary General Manfred Woerner, “1988 IISS Alastair Buchan Memorial Lecture,” November 23, 1988, printed in *NATO Speeches*, *NATO On-line Library*, updated March 12, 2001.

U.S., UK and French strategic nuclear forces, and in so doing *deter* aggression in the first place.

Should deterrence fail, the DCA posture in theory provides for the possibility, however slim, that a conflict could then be terminated at this more limited nuclear engagement level, short of escalation to the strategic nuclear level. But expectations that such a use, once initiated, could be contained have never been high. This is not to say that DCA is *only* a “political” weapon, since its employment concept must have some minimal military/operational plausibility to be credible. As Colin Gray observed, notwithstanding “the terrible moral, ecological and other implications of nuclear war,” military planners have throughout the nuclear age been tasked with planning for the unthinkable.⁶¹ Or, as Gregory Treverton put it in 1983: “Military measures designed to serve political purposes will fail to do so if they do not make sense on technical grounds to the ostensible military experts.”⁶²

To a degree, DCA must satisfy this criterion. Allied aircrews are not going to train for and maintain proficiency in a nuclear-delivery mission that is seen as suicidal or wholly non-viable. NATO’s annual “live fly” but “unarmed” DCA exercise, STEADFAST NOON, is in part designed specifically to provide them with such confidence. That said, under current restrictions, in place since the end of the Cold War and which have not been relaxed despite the heightening of tensions with Russia beginning with Crimea, the NATO Nuclear Directorate at SHAPE is, as noted previously, prohibited from developing any specific strike plans or designating any specific targets. That means, in turn, that the DCA mission does not require universal or even broad-based participation among NATO allies to generate the requisite force, but rather only a relatively modest or *de minimis* operational footprint.

A senior Obama official interviewed expressed the primary purposes of DCA as two-fold:

First, to demonstrate that an attack on one will be treated as an attack on all, and second, to demonstrate the inseparable linkage of U.S. nuclear

⁶¹ Colin S. Gray. *Modern Strategy* (Oxford University Press, Oxford, 1999), 308. Commenting approvingly on Gray’s view, James Dougherty and Robert Pfaltzgraff have argued that “Although the Cold War ended without the use of nuclear weapons by the superpowers against each other, we can never be certain whether or not they were the leading reason that the superpowers did not go to war with each other.” (*Contending Theories of International Relations: A Comprehensive Survey*, 394.)

⁶² Treverton, Gregory. “Managing NATO’s Nuclear Dilemma,” *International Security*, Vol. 7, No. 4 (Spring 1983), 95.

forces to the defense of Europe. The fewer the sharing nations, the less credible are these messages.⁶³

Fortunately for the Alliance, a minimally sufficient number of allies, including Germany, have over the years stepped forward to offer a minimally sufficient number of aircraft capable of delivering a minimally sufficient number of B61 bombs.

In effect, then, the DCA mission can be described as a small, and arguably elite, “coalition of the willing” within the broader Alliance.

If NATO truly believed, as its policy states, that the Alliance’s deterrent posture in the face of Russia’s increased aggressiveness since 2014 “relies” on DCA, there are several steps it could take to enhance its capabilities and credibility far more substantially than it actually has:

- It could significantly increase the frequency of meetings of the NPG and more stringently exercise the transition from conventional to nuclear forces.
- It could rescind the “3 No’s” pledge and allow B61s to be based further east or be capable of being delivered by additional DCA allies, such as Poland (which operates the F-16 and has asked to acquire the F-35).
- It could reinstate nuclear strike planning at SHAPE and augment the existing, and very small, staff at its Nuclear Operations Directorate.
- It could bring DCA mission-related Capability Targets into its normal NDPP process. Currently, the NDPP does not establish DCA inventory or SNOWCAT support requirements.⁶⁴
- It could put pressure on more non-DCA allies to participate in SNOWCAT.⁶⁵
- it could observe an unwritten rule that to be credible in urging allies to participate in DCA, the NATO Secretary General cannot come from a country which opts out of this mission, especially if that Secretary General himself served as Head of Government, as have the last two NATO Secretary Generals (former Danish Prime Minister Anders Fogh Rasmussen and former Norwegian Prime Minister Jens Stoltenberg).

⁶³ Interview, US1.

⁶⁴ Interviews, N1 and US2.

⁶⁵ Given the predisposition of Russia to lump DCA and SNOWCAT-contributing allies together, some doubt that anti-nuclear constituencies within these nations would see any distinction (Interview, US1). But technically, there is no such thing as a “SNOWCAT nation,” since in a crisis SACEUR has delegated authority to allocate whatever aircraft he deems necessary to support a DCA mission [Interview, N1].

However, no such step – except perhaps the first - would likely find consensus in NATO at present, since any of these possible DCA enhancements would be seen, at least by some allies, as too “provocative” and perhaps “irreversible” in terms of shutting the door to a possible reset with Russia that could lead to the strategic partnership still endorsed as a goal in the Alliance’s governing Strategic Concept.⁶⁶

Archival research and an extensive review of the IR literature on NATO nuclear matters show that these conclusions are consistent with long-standing U.S. policy dating back to the dawn of the Cold War. As noted, beginning with President Eisenhower’s insistence in the run-up to the first NATO Summit in 1957 that only “willing” allies would be asked to host and if necessary help employ U.S. tactical nuclear weapon forward deployed in Europe, the United States has not demanded that all eligible and capable allies join this mission. Rather, as long as a *de minimis* “critical mass” of willing allies, including most notably Germany, provided a foundation for a viable forward-based non-strategic nuclear weapons posture in Europe, it has tended to view individual allies’ decisions on whether to opt-in or opt-out of nuclear roles as voluntary or discretionary. More generally, many NATO veterans believe that the Alliance has always respected, to a degree, the prerogative of any ally to identify its “niche” via “role specialization” where it can best contribute.⁶⁷

Germany is in this sense a special case, as will be elaborated upon in Chapter 6. As one senior Obama official characterized the situation, Germany is the “lynchpin” of DCA and to sustain that, a broader level of allied participation is required to ensure it is not “singularized” in this nuclear task.⁶⁸ A Trump official interviewed agreed, suggesting that Germany’s special importance effectively means there are three “tiers” of DCA membership among the six participating U.S. allies: (1) Germany, (2) Belgium, Italy and the Netherlands, and (3) Greece and Turkey.⁶⁹ Two former senior Obama defense officials summarized U.S. perspectives on the criticality of Germany’s remaining in DCA when they wrote:

To Americans this is a solemn undertaking. Germany walking away from this vow to share the nuclear burden, this expression of solidarity and risk sharing, strikes at the heart of the trans-Atlantic bargain. If other NATO members who share the nuclear burden and risks were to follow Germany’s example, the bargain sustaining U.S. extended nuclear

⁶⁶ Even the first step would encounter push-back from France, whose military doctrine does not recognize the concept of a “spectrum of deterrence.”

⁶⁷ Interview, US1.

⁶⁸ Interview, US1.

⁶⁹ Interview, US2.

deterrence to Europe would collapse and the U.S. umbrella would essentially be decoupled from Europe.⁷⁰

The Cold War era nuclear-sharing arrangements inaugurated by Eisenhower were designed in large measure to provide an alternative to Germany's interest during the Adenauer era in obtaining its own independent nuclear capability. As the largest and most politically important NATO ally that is not a Nuclear Weapons States, as defined by the Nuclear Non-Proliferation Treaty (NPT), Germany is expected to set the example when it comes to burden-sharing, and smaller allies in many cases take their cue from Germany's decisions. 100% of those asked in interviews agreed that were Germany to withdraw from its participation in the current DCA nuclear-sharing arrangements, other participants would follow. Given that 58% of those asked felt that NATO's DCA "club" was already at or near the *de minimis* number that equates to a viable and effective deterrent posture, this is a significant finding.

Question	# Asked	# Answering "Yes"	# Answering "No"	# Answering "Other"
Would other allies follow a German DCA withdrawal?	39	39	0	0
NATO now at DCA minimum?	25	10	10	5

Table 5: Saliency of German DCA Participation

Adding additional stress to NATO's current DCA posture, 90% of those asked believe that absent a robust arms control agenda, including in particular the extension of the U.S.-Russian New START treaty before it expires in February 2021, many of those allies who are still in DCA (e.g., Germany, Netherlands, Belgium, and Italy) will face significant challenges in terms of domestic policy in staying in the nuclear-sharing "club." This finding is consistent with the pattern of a "twin pillars" balancing strategy dating back to the Alliance's 1967 Harmel Report and the "dual track" INF arms control and missile deployments episode in the 1980s, and as consistently underscored in NATO summit communiques ever since.

⁷⁰ Michèle Flournoy and Jim Townsend, "Striking at the Heart of the Trans-Atlantic Bargain," *Der Spiegel*, June 3, 2020.

Question	# Asked	# Answering "Yes"	# Answering "No"	# Answering "Other"
Do DCA allies need to be able to point to a robust NATO arms control agenda to help them sustain public support for being in the nuclear mission?	41	37	2	2 (Maybe/not sure)

Table 6: Importance of Parallel Arms Control Track

In sum, this dissertation's extensive interviews indicate that DCA can be seen as *sui generis* within the realm of NATO burden-sharing as it is now commonly defined and measured by reference to the "3 C's." The fact that NATO exempts DCA from normal burden-sharing standards and processes encompassed by the "3 C's" offers probative value in reaffirming this dissertation's central hypothesis that it regards DCA participation as essentially discretionary. To apply the terminology derived by Stephen van Evera, DCA participation *not* being part of the normal "3 C's" burden-sharing mechanisms at NATO, as defined by the Wales Pledge, NDPP and Force Generation Conferences, can be seen as a "**hoop test**." Failing a hoop test disqualifies a putative correlation and hence leads one to seek alternative explanations.⁷¹

⁷¹ Van Evera, Stephen, *Guide to Methods for Students of Political Science* (New York: Cornell University Press, 1997), 31-32.

CHAPTER FIVE

CAUSAL INFERENCES

What explains, then, why six U.S. allies elect to participate in DCA when the other five who are eligible to and capable of doing so do not? If the decision to participate in DCA by those allies who have chosen to do so is *not* due to “external” U.S. burden-sharing pressure, and if DCA participation or non-participation is *exempt* from the normal “3 C’s” yardsticks for “fair burden-sharing” applied in other domains at NATO, van Evera’s “hoop test” rule is that one must look *elsewhere* for explanations.

5.0. Relationship of the IVs to the DV

It is the hypothesis of this dissertation that allies’ decisions on DCA (the Dependent Variable (DV)) reflect each nation’s *own* sovereign and independent calculation of the costs and benefits of participating, based on the interplay of 5 factors (the Independent Variables (IVs)):

1. The extra financial cost for that ally to equip its fighters to be capable of providing DCA to the Alliance, taking into account that this cost is relative to the total defense spending of that ally, which in turn is related to the priority that nation attaches to defense spending (e.g., defense spending as a percentage of GDP);
2. The strength and saliency of domestic opposition to nuclear weapons; that is, the degree to which there exists within each ally’s domestic politics a politically-significant nuclear “allergy,” defined by a significant involvement in the political process by strongly anti-nuclear parties, constituencies and/or NGOs, taking into account the degree to which the form of government of that ally either makes it susceptible to civil preferences or insulates it from these constraints;
3. The perceived balance of threat from Russia’s aggressive foreign policies and its nuclear modernization programs;
4. The degree to which that ally attaches primacy in its Alliance engagement to a transatlantic alignment in which priority is attached to maintaining close relations with the United States. This dissertation hypothesizes that there is an *inverse* relationship here; that is, that such allies are more prepared to *trust* the United States to effectively manage NATO nuclear policy and posture without themselves feeling the need to exercise oversight directly via participation in DCA and the enhanced consultative opportunities that affords in the NPG/HLG; and

5. The degree to which that ally identifies having a “seat” at NATO’s “nuclear table” as conferring enhanced political status and influence within the Alliance vis-à-vis nuclear matters and other high-priority political and military interests of that ally as well.

Independent Variables Number 1-2 (extra cost and degree of domestic opposition) are both “internal” factors for each ally and vary in strength among the 11 cases studied, but they will always favor a “con” argument with regard to whether to participate in DCA. Conversely, Independent Variables Number 3-5 (perception of the Russian threat, degree of transatlantic alignment, and the status and ranking an ally seeks vis-à-vis its fellow allies) are all “external” factors. Although they also vary in strength, they will always favor a “pro” argument for participating in DCA. This relationship is illustrated below:

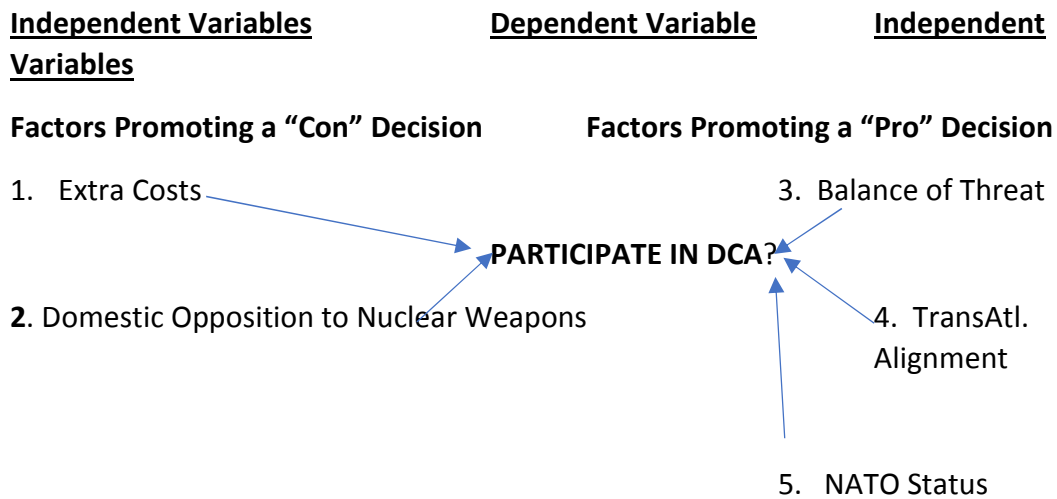


Figure 13: IVs v. DV Summary

For each of the 11 allies studied, each of these 5 IVs will assigned a qualitatively-determined coefficient reflecting its saliency on a scale between 0 and 1, with 5 gradations, as follows:

Subjective Assessment	Co-efficient
No effect	0.00
Little effect	0.25
Moderate effect	0.50
Significant effect	0.75
Full effect	1.00

Table 7: Saliency of IV with regards to the DV

There are 5 other Independent Variables which, *if standing alone*, the dissertation hypothesizes are *not* factors in helping to explain which of the 11 specified allies choose to participate directly in DCA, though some of these factors may have a bearing on one of the five IVs identified above. For example, geographic location relates to balance of threat and overall military spending relates the saliency of extra cost.

- The political orientation of the ruling coalition (left/right);
- The size of the ally (GDP and population);
- The size of the ally's armed forces;
- The geographic location of the ally; and
- The ally's overall level of defense spending

The dissertation also assesses an emerging issue that, while not an IV bearing on allies' decision-making on DCA at present, could in time evolve to become one: the extent to which the European Union actually endeavors to achieve *genuine* "strategic autonomy" in the defense and security domains, which could provide a credible collective security alternative to NATO . The dissertation recommends that an ally's degree of support for genuine EU strategic autonomy, as operationalized through future enhancements of significant scale and scope of the EU's Common Security and Defense Policy (CSDP), including its Permanent Structured Cooperation (PESCO) arrangements and, possibly, eventual incorporation of a French "nuclear umbrella," be addressed in future research within the IR academy on NATO issues.

5.1. Elaboration of the Five IVs



Figure14: U.S. B61-Mod 3/4 Nuclear Bombs

5.1.1. Extra Cost

This dissertation assumes that the financial cost for NATO allies who elect to participate directly in the DCA mission by modifying their modern fighter aircraft to carry and deliver the B61-Mod 12 nuclear bomb is an *incremental* cost. The decision point at which the cost “delta” for an ally to opt-in to DCA comes into play does not entail include any financial expenses associated with the development of the bomb itself (estimated by the U.S. Government Accountability Office (GAO) at \$7.6 billion, assuming an estimated program competition date of FY 2025).¹ This is because those costs are being born by the United States alone. The United States intends the B61-Mod 12 to be carried not only by F-15E “Strike Eagle” fighters deployed in Europe as part of DCA, but also by fighters in other regions and strategic bombers, such as the B-2 and its planned replacement, the B-21.

Nor does this cost “delta” include the costs associated with procurement of the fighters themselves, since that is effectively a “sunk cost.” In the case of the F-35A, the “unit-recurring flyaway cost” for each of the 169 F-35s that will be manufactured in Production Lot 14 is \$73 million.² This estimate does not include other procurement costs related to initial spare parts, flight training simulators, or the F-35’s logistics tracking system.³

Finally, this cost “delta” also does not include the future costs of operational improvements to the F-35, which all international partners in the JSF program, in Europe, Asia and the Middle East, will share with the United States under the \$14 billion “Block 4” Continuous Capability Development and Delivery (C2D2) phase. The F-35 Joint Program Office believes Block 4 will be 100% fielded by 2028.⁴ However, the GAO has informed Congress that due to continuing problems with the F-35 aircraft simulator and other developmental issues, it was likely that this scheduled completion date is unachievable.⁵

¹ U.S. Government Accountability Office, *B61-12 Nuclear Bomb: Cost Estimate for Life Extension Incorporated Best Practices, and Steps Being Taken to Manage Remaining Program Risks*, GAO Report to the Committee on Armed Services, U.S. Senate (GAO-18-456), May 2018, 2.

² U.S. Government Accountability Office, *F-35 Joint Strike Fighter: Actions Needed to Address Manufacturing and Modernization Risks*, GAO Report to Congressional Committees (GAO-20-339), May 2020, 18.

³ “Deceptive Pentagon Math Tries to Obscure \$100 Million+ Price Tag for F-35s,” Dan Grazier, *Project on Government Oversight (POGO)*, Center for Defense Information, November 1, 2019, 2.

⁴ Power Point Presentation (Publicly Releasable) by COL Ryan Mueller, F-35 JPO, to the Air Force Association Gabriel Chapter, March 10, 2021.

⁵ U.S. Government Accountability Office, *F-35 Joint Strike Fighter: DoD Needs to Update Modernization Schedule and Improve Data on Software Development*, (GAO-21-226), GAO Report to Congressional Committees, March 2021, 24.

C2D2 costs are to be spread among program partners over the next 5 years, whether or not they participate in DCA. According to the Congressional Research Service (CRS), U.S. F-35 international partners *world-wide* are due to pick up roughly one-third of the total \$13.9 billion cost of the C2D2 phase of the program through FY 2027.⁶ How much of this roughly \$4.6B cost would be borne specifically by NATO allies Denmark, Norway, the Netherlands, Belgium, Italy and Poland, as well as Greece (which in November 2020 announced its intention to purchase the aircraft), in what proportions, and on what payment schedule, has not been made public.

Beyond the conventional warfare-oriented C2D2 F-35 enhancement costs, though, lie “extra” costs uniquely associated with the aircraft’s planned nuclear-delivery capability. The first F-35As capable of performing DCA will come from Production Lot 13 and are scheduled to achieve nuclear certification in 2023.⁷ There are two “steps” involved in this certification: the design certification, which will be managed by the F-35 JPO, and the operational certification, which will be performed by the U.S. Air Forces in Europe (USAFE) command at Ramstein Air Base, Germany. Once the aircraft is duly certified for USAF B61 delivery, the United States will engage DCA allies to conduct their individual nuclear upgrades.

In the case of the “nuclear-wired” F-35 (which applies to 3 of the 6 current DCA participants (Belgium, Netherlands, Italy)), there will be a charge for some percentage share of the overall cost to the United States of that part of C2D2 that includes installation of nuclear weapons-delivery wiring and software.⁸ A July 2019 report by the NATO Parliamentary Assembly states that the total cost of these nuclear-capability installations, including for U.S. F-35As, is \$350 million.⁹ This estimate is consistent with budget data that was submitted to Congress in February 2020 in support of President Trump’s DoD budget request for FY 2021. An “R-1 Program Element” spreadsheet contained in that documentation indicates that between FY 2017 and FY 2021, the Air Force will

⁶ Jeremiah Gertler, Congressional Research Service. *F-35 Joint Strike Fighter (JSF) Program*, April 23, 2018. See also: *F-35 Joint Strike Fighter: Action Needed to Improve Reliability and Prepare for Modernization Efforts*, GAO Report to Congressional Committees (GAO-19-341), April 2019, 18. On March 31, 2020, CRS released an update to its 2018 Report on the F-35: Jeremiah Getler, *F-35 Joint Strike Fighter (JSF) Program (Updated)*, Washington, DC: CRS, March 31, 2020).

⁷ Office of the Secretary of Defense, *Selected Acquisition Report (SAR): F-35 Joint Strike Fighter Aircraft (F-35)*, March 17, 2019, 14.

⁸ “Statement of Sean J. Stackley (Assistant Secretary of the Navy for RD&A) and Lt.Gen. Christopher C. Bogdan (F-35 PEO) before the Tactical Air and Land Forces Subcommittee, House Armed Services Committee,” March 23, 2016.

⁹ *NATO Parliamentary Assembly Defense and Security Committee Draft General Report: A New Era for Nuclear Deterrence: Modernization, Arms Control, and Allied Nuclear Forces*. Joseph A. Day (Canada), General Rapporteur, July 11, 2019.

spend \$333.34 million in Research, Development, Test and Evaluation (RDT&E) funding in developing an F-35 DCA version.¹⁰ For Fiscal Year 2020, the cost of this work as requested by the Trump Administration is \$71.3 million, with the program planning to complete software development, separation flight testing, and mission system flight testing during that fiscal year.¹¹ The requested funding for FY2021 is \$106.136 million.¹²

In November 2018, the Air Force awarded Lockheed Martin Corporation an \$83.1 million contract for a major portion of this work, to include incorporation of relevant hardware and software into the aircraft, to be completed by the now-projected F-35 DCA Initial Operating Capability (IOC) date of FY 2024.¹³ How much of the \$333M total cost would be borne specifically by the Netherlands, Belgium, and Italy, in what now-projected proportions, and on what payment schedule has not been made public. But assuming the 2018 contract to Lockheed Martin reflects the U.S. share of this modification, that suggests the “share” being passed to each of the three U.S. NATO ally F-35 DCA partners is about \$250M across the 8 years of the developmental program, or \$83.4M each (i.e., the same percentage share for the DCA modification being paid by the United States for its DCA-capable F-35A aircraft). On average, then, this “extra” cost is about \$15 million annually, allowing for inflation.

The “extra cost” in financial terms for non-U.S. NATO allies participating in the DCA mission also applies in *two other* categories of expense:

- For each DCA-participating ally, there will be extra costs associated with the additional flying hours required for pilots to be certified in the nuclear-delivery mission, beyond the flying hour proficiency requirements for conventional missions. This includes practicing nuclear strikes and delivering “dummy” ordnance at NATO bombing ranges, as well as standing inspections from NATO to test a unit’s readiness and proficiency in the nuclear mission. The JPO projects by 2025 to achieve a \$25,000 per hour flying cost for F-35, though the current figure is

¹⁰ *RDT&E Programs (R-1), Department of Defense Budget, Fiscal Year 2021*. Office of the Under Secretary of Defense (Comptroller), February 2020, PE 0604840F/F-35 C2D2.

¹¹ “Statement of the Honorable Ellen M. Lord, Under Secretary of Defense for Acquisition and Sustainment before the Strategic Forces Subcommittee, Committee on Armed Services, U.S. Senate on U.S. Nuclear Weapons Policy, Programs and Strategy in Review of the Defense Authorization Request for Fiscal Year 2020 and the Future Years Defense Program,” May 1, 2019 (https://www.armed-services.senate.gov/imo/media/doc/Lord_05-01-19.pdf).

¹² CRS F-35 Report (Updated), 22.

¹³ “Lockheed Helping Air Force with Dual Capable Development for the F-35,” *Signal Magazine (on-line)*, November 16, 2018.

\$44,000.¹⁴ Assuming 10 hours a year for each allied pilot to maintain B-61 delivery proficiency, and 30 DCA qualified pilots per F-35 squadron, this “extra” cost works out to about \$13.5 million annually.

- Assuming that an ally’s decision to participate directly in DCA also carries with it the willingness to host the B-61 bombs at a base or bases on that ally’s soil to co-locate the DCA flying squadron with the weapon storage location,¹⁵ there will be an extra cost associated with maintaining a ground force for weapons protection purposes (e.g., responding to any effort by terrorists to penetrate a storage vault and steal a bomb).¹⁶ Pursuant to the bilateral Memoranda of Cooperation that govern each host nation arrangement, “custody, repair and improvements to the weapons and the storage bunkers are the responsibility of the U.S. Air Force,” whereas “perimeter security (fences, monitors, and motion detectors) and access to the storage sites is the responsibility of the host nation.”¹⁷ The host-nation force providing perimeter security is normally of battalion strength (about 500 soldiers). The U.S. Army spends about \$160 million in FY 2019 Operations and Maintenance (O&M) funds to resource the Operating Tempo required for each of its 34 Brigade Combat Teams and Security Force Assistance Brigades to execute the training and operations required to maintain readiness. On average, a BCT has four ground-force Battalions. Recognizing that the United States generally spends more on O&M per unit than its NATO counterparts, this suggests that the “extra” cost to an ally of maintaining a ground-force Battalion for B61 bomb site protection and airbase defense is on the order of \$30 million annually.

¹⁴ Mueller Power Point. However, see also: “One of the F-35’s Cost Goals May be Unattainable,” *Defense News*, May 2, 2019. The article notes that this figure is the actual FY 2018 figure achieved by those F-35As delivered at that time, in contrast to the established DOD goal of \$25,000 per flying hour.

¹⁵ This extra cost would not apply to Canada, were it to commit its current F-18s, or its planned F-18 replacement, to DCA, since Canada is not a “forward deployed” ally geographically.

¹⁶ U.S. nuclear weapons in Europe remain at all times under the control of personnel assigned to U.S. Air Force Munitions Support Squadrons (MUNSS).

¹⁷ Remkes, R.C.N., “The Security of NATO Nuclear Weapons: Issues and Implications,” In Andreassen, S. and Williams, I., eds. In *Reducing Nuclear Risks in Europe: A Framework for Action*, NTI, 2011, 66-75, https://media/nti.org/pdfs/NTI_Framework_chpt3.pdf/LM).

Activity	Annual Extra Cost (estimated)
Share of F-35 DCA Developmental Program	\$15.0 million
Additional Flying Hours for Proficiency	\$13.5 million
Air Base Defense Battalion O&M	\$30.0 million
Total	\$58.5 million

Table 8: Summary of “Extra” DCA Costs for F-35-Equipped NATO Allies

The *saliency* of this extra cost for any specific ally is a function of the overall size of its defense budget, and the relationship of that budget to its GDP (which reflects the relative prioritization of spending on defense within that nation, as opposed, say, to social warfare). Allies with small defense budgets and low defense spending/GDP ratios would have more of a challenge in meeting the extra cost of DCA than those allies with large aggregate defense budgets and high defense/GDP ratios.¹⁸

5.1.2. Domestic Opposition to Nuclear Weapons

NATO International Staff official Michael Ruhle has pointed out that “just as nuclear deterrence is again becoming more important, it is also becoming more contested.”¹⁹ Strong public sentiment against, and in many cases revulsion over, the possession and/or threatened use of nuclear weapons began immediately after the first use of such a weapon at the end of World War II. It has played a role in NATO debates over nuclear matters ever since, including, most notably, when hundreds of thousands of Europeans mobilized in protests during the INF “double track” era in the early 1980s.

In this context, for many U.S. NATO allies any appearance of back-sliding by the United States in relation to the Alliance’s Arms Control, Disarmament and Non-Proliferation (ADN) policies can significantly complicate maintaining government positions in line with the consensus of other, more hawkish, nations within the Alliance on nuclear posture issues. Domestically, maintaining government

¹⁸ For purposes of this dissertation, data will be taken from the NATO Secretary General’s Annual Report for 2020.

¹⁹ Michael Ruhle, “NATO Nuclear Deterrence: More Important, Yet More Contested,” NATO Defence College Policy Brief, No. 2, January 2019, 1.

majorities in support of nuclear deterrence is made more difficult without sustained progress on arms control by the two major nuclear powers, especially in those West European democracies where ruling coalitions require several parties to unite behind a commonly-negotiated set of domestic and foreign policies and smaller, single-issue (e.g., anti-nuclear) parties can hold significant leverage.

Michael Howard summarized this interrelationship when he observed during the SS-20/cruise missile “double track” era:

This “dual track” is essential to effective reassurance: peoples expect their governments to provide them with adequate protection. But they also expect them to seek peace and ensue it, and if they are not seen to be doing so, consensus over defense will crumble away.²⁰

In its early decades, the focus of public, parliamentary and in some cases governmental pressure on the United States to “do more” on the arms control front was directed towards how best to respond to various Soviet “peace proposals.” As noted, this consideration played a major role at NATO’s first summit in 1957, when Eisenhower and Dulles reluctantly agreed to address just such a Soviet proposal in order to win Norway and Denmark’s agreement not to veto the U.S. “atomic stockpile” and IRBM offers. By 1967, this “dual track” approach was effectively “codified” in the Harmel Report. After the collapse of the Soviet Union, the pressure to “do more” on arms control focused on U.S. and Russian progress in moving towards fulfillment of their nuclear disarmament commitments under Article 6 of the NPT:

Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.

During the Clinton Administration, the United States came under intense global pressure to show more progress on Article 6 as the convening of the 20th Review Conference on the NPT drew near. The Administration’s objection for this Conference was to obtain the indefinite and unconditional extension of the Treaty.²¹ As the result of a determined commitment over many months, the Administration was able to point to a record of accomplishment sufficient to persuade the rest of the world to accept these objectives. These accomplishments included successfully negotiating the START I, START II and INF

²⁰ Michael Howard, *Foreign Affairs*.

²¹ The author of this dissertation had lead responsibility for this effort within the NSC.

treaties, implementation of the PNI reductions in tactical nuclear weapons, nearing the finish line in negotiating the Comprehensive Test Ban Treaty, and signing or supporting Nuclear-Free Zone accords covering Latin America, the South Pacific, Antarctica, Africa, the Middle East, Southeast Asia, and South Asia. As a result, the United States contended at the Conference that “the nuclear arms race has ended.”²²

NATO has made clear that the NPT “remains the cornerstone of the global non-proliferation regime and has an essential role in the maintenance of international peace, security and stability.”²³ At the 2018 Brussels Summit, Allies also emphasized that they “are strongly committed to full implementation of the NPT in all its aspects, including nuclear disarmament, non-proliferation, and the peaceful uses of nuclear energy,” and they “reaffirmed their resolve to seek a safer world for all and to take further practical steps and effective measures to create the conditions for further nuclear disarmament negotiations and the ultimate goal of a world without nuclear weapons in full accordance with all provisions of the NPT, including Article VI, in an ever more effective and verifiable way that promotes international stability, and is based on the principle of undiminished security for all.”²⁴ Allies also praised the New START Treaty and urged it be extended, commended the United States and Russia for the strategic arms reductions undertaken to date, declared their support for further arms control negotiations, and called on all nations “to declare and to maintain a voluntary moratorium on nuclear weapon test explosions or any other nuclear explosion, pending the potential entry into force of the Comprehensive Nuclear-Test-Ban Treaty.”²⁵

Although even more progress was made pursuant to Art. 6 under the next two administrations, including President George W. Bush’s success in negotiating the Strategic Offensive Arms Treaty (SORT) and President Obama’s Executive Order directing the U.S. Government to begin creating the conditions that would allow eventually for the elimination of all nuclear weapons, this positive trend was reversed by President Trump. Secretary General Stoltenberg at the October 2019 High-Level Conference on Arms Control and Disarmament warned that “the arms control architecture is under serious strain” and outlined four areas where he believes “we could act together” to reflect this “new reality:” (1) preserving

²² “Letter Dated 10 April 1995 from the Deputy Director of the United States Arms Control and Disarmament Agency Addressed to the Provisional Secretary-General of the 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons,” NPT/CONF.1995/17, April 14, 1995, p. 16. The author of this dissertation chaired the inter-agency committee that coordinated U.S. Government preparations for this NPT conference.

²³ *Ibid.*, para. 44.

²⁴ *Ibid.*

²⁵ *Ibid.*, paras. 44-45.

and implementing the NPT; (2) adapting INF and New START to take account of this “new reality;” (3) modernizing the OSCE Vienna Document; and (4) considering how to develop new rules and standards for emerging technologies, including advanced missile technology.”²⁶

In December 2018, NATO Foreign Ministers showed understanding for the U.S. decision to withdraw from the INF Treaty in light of the incontrovertible evidence presented to them by the U.S. Intelligence Community concerning Russia’s SSC-8 cruise missile violation. They were, however, not happy about this state of affairs, with Chancellor Merkel calling the demise of the Treaty “the really bad news this year.”²⁷

During the Trump Administration, disillusionment and frustration in much of the world with regards to what it perceives to be a failure of the nuclear states – and especially the United States - to deliver on their commitments gave rise to the negotiation in the UN General Assembly of the Treaty on the Prohibition on Nuclear Weapons (TPNW), also known as the Nuclear Ban Treaty (NBT). Seen as a shortcut to nuclear disarmament faster than the NPT, nations and civil society organizations came together under these UN auspices to put forward the NBT as the hoped-for catalyst in pressuring the nuclear states to abolish their nuclear inventories. Over the objections of the world’s nine nuclear states, 152 nations voted to approve this treaty on July 7, 2017. 84 nations have signed as of December 2020, and in November 2020 the 50th state, Honduras, ratified it, setting in motion the entry into force of the accord on January 22, 2021.

The NBT contains no enforcement mechanism and its restrictions apply only to those who have signed and ratified it. That group of states does not include any of the nine nuclear powers or any of the 27 non-nuclear NATO allies, who showed solidarity with the United States, the UK and France in opposing it. Nonetheless, the NBT has been endorsed by the UN Secretary-General, the Vatican, the Anglican Church and, recently, 56 former national leaders.²⁸ In 2017, ICAN was awarded the Nobel Peace Prize for its work. Support for broadening the NBT’s universality is led by a global NGO that evolved from the successful civil society coalition that came together to persuade the world’s nations to abolish anti-personnel landmines, the International Campaign for the Abolition of Nuclear Weapons (ICAN). ICAN is extremely active in NATO nations,

²⁶ *Speech by NATO Secretary General Stoltenberg at the High-Level Conference on Arms Control and Disarmament*, 3.

²⁷ Munich Security Council speech, 2.

²⁸ See: ICAN website (www.icanw.org). Notably, the list of signatories to this Open Letter included two former NATO SYGs (Claes and Solana) and fourteen former Prime Ministers or President of NATO allied nations.

organizing rallies, presenting testimony to parliamentary committees and demonstrating at nuclear weapons storage bases

Francis Galvin has observed, “Norms and public opinion may not be determinative, but they also cannot be ignored.”²⁹ One factor that helps determine the saliency of domestic opposition from civil society and parliamentary parties is the form of government in each of the 11 allies. Tim Haesebroek has explained that IR theory basically holds that “rightist” parties are more likely to favor contributing to operations involving the use of force, while “leftist” parties are more likely to contribute to humanitarian missions. However, DCA is neither; that is, it is clearly not the latter and with regard to the former, it is more an existential threat than an active kinetic operation (at least in peacetime). Governments tend to view DCA much more as a deterrence mission than a combat mission. This dissertation therefore excludes the policy orientation of the executive as a stand-alone IV from its analysis, given the consistency in the history of DCA participation and non-participation across many decades.

That said, the relative autonomy of the government vis-à-vis civil society and parliament matters in terms of the degree to which it can or cannot discount domestic opposition to nuclear weapons. Authoritarian governments (e.g., Turkey) are much more autonomous in this regard than parliamentary democracies in which the government is comprised of multi-party coalitions with only a thin ruling majority (e.g., Belgium, Netherlands, Denmark, Norway, Spain, Portugal and Greece). Federal republics, such as the United States and Canada, or nations in which the coalition government represents a broad union of right and left parties (e.g., Germany and the new Italian government) are somewhere in the middle.

Taking these domestic political variables into account in a broader integrated framework, a 2018 study by the ECFR examined each European Union Member State to assess the degree to which it was opposed to nuclear weapons. Not surprisingly, it found that within these nations, “attitudes to nuclear deterrence differ radically from country to country.”³⁰ The study assigned each EU Member State to one of five groupings, ranging from “true believers” to “conflicted,” as shown below:

²⁹ Galvin, *War on the Rocks*, 25.

³⁰ Rapnouil, Varma and Whitney.

Nuclear weapons and the EU

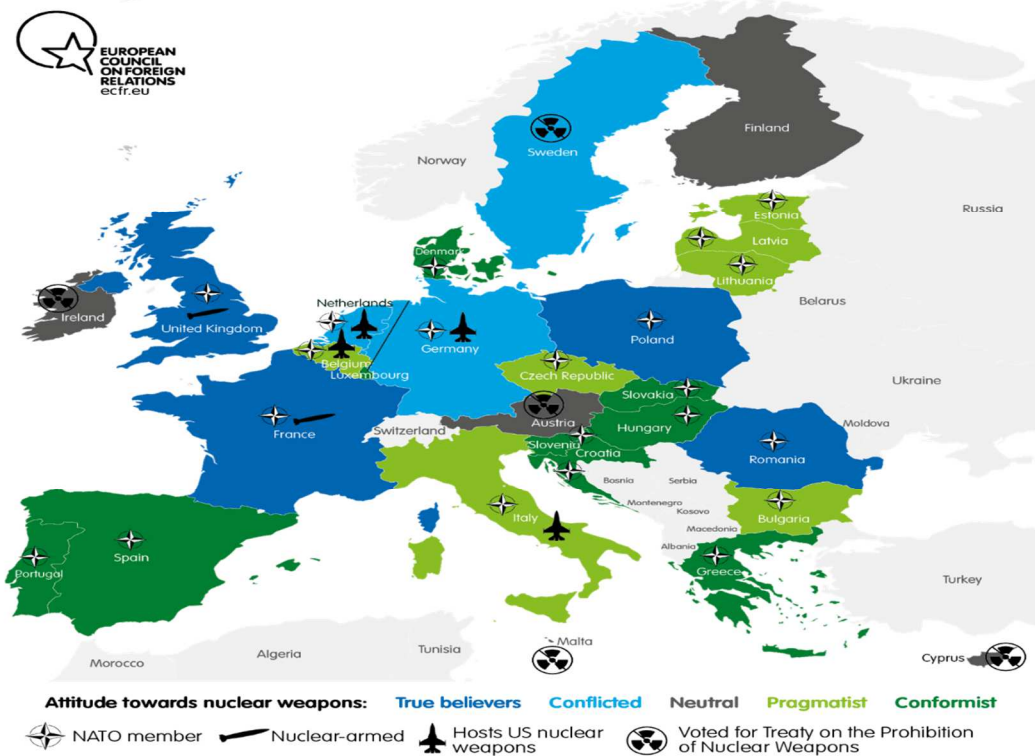


Figure 15: Nuclear Attitudes in Europe

In another recent assessment of domestic opposition to nuclear weapons, ICAN surveyed public attitudes in four of the DCA participating allies (Belgium, Netherlands, Italy and Germany). As shown below, its polling indicates a majority in three (Belgium, Germany and Italy) and a near-majority in the fourth (Netherlands) are opposed to equipping their fighter aircraft with nuclear bomb-delivery capability. The fact that all four appear to be on course to pay the extra costs of doing just that, though, attests to the countervailing and greater influence of the other three IVs (perception of the Russian threat, degree of transatlantic alignment, and importance of having a “seat” at NATO’s “nuclear table”) on this question. These interrelationships will be examined in detail in the next chapter.



Figure 16: ICAN Polling on Nuclear-Capable Aircraft

5.1.3. Balance of Threat

Stephen Walt maintains that nations join and remain in alliances to balance against threats, the saliency of which are a function of the potential aggressor nation's overall power, its ability to assert that power offensively, the likelihood of such aggression (i.e., intent), and its proximity geographically to the ally in question.³¹

Within NATO, perceptions of the threat posed by Russia post-Crimea are formed both individually, nation by nation, and collectively. Individual perceptions are normally outlined in national White Papers or national strategy documents. Collective (or "corporate") assessments are reached at two different levels in NATO. First, there is the consensus NATO view on this issue as represented by Summit and Ministerial communiques and declarations. These statements, always issued in an unclassified form, require unanimity and thus reflect the give

³¹ Stephen M. Walt, *The Origins of Alliances* (Ithaca: Cornell University Press, 1987), 21-27.

and take of the 30 respective delegations on wording, both in terms of substance and tone, in drafting sessions that are usually headed by Deputy Ambassadors and can carry on for days – sometimes including through the night before and up to and including the time when the Leaders gather for their final session.

Below is the most recent (2018) such statement assessing the Alliance’s agreed framing of the scope and scale of the Russian threat:

The Euro-Atlantic security environment has become less stable and predictable as a result of Russia’s illegal and illegitimate annexation of Crimea and ongoing destabilization of eastern Ukraine; its military posture and provocative military activities, including near NATO’s borders, such as the deployment of modern dual-capable missiles in Kaliningrad, repeated violation of NATO Allied airspace, and the continued military build-up in Crimea; its significant investments in the modernization of its strategic forces; its irresponsible and aggressive nuclear rhetoric; its large-scale, no-notice snap exercises; and the growing number of its exercises with a nuclear dimension. This is compounded by Russia’s continued violation, non-implementation, and circumvention of numerous obligations and commitments in the realm of arms control and confidence- and security-building measures. Russia is also challenging Euro-Atlantic security and stability through hybrid actions, including attempted interference in the election processes, and the sovereignty of our nations, as well as the case in Montenegro, widespread disinformation campaigns, and malicious cyber activities.³²

With reference to Walt’s four balance of threat criteria, NATO, in a corporate sense, clearly sees Russia as meeting three; that is, there is a consensus among the Alliance’s 30 members that Russia possesses the aggregate power to be a major threat; it is alarmed by the offensive nature of recent Russian behavior; and while it does not deem Russia to be a clear and present danger (i.e., an “imminent” threat) in terms of an all-out invasion, it does not exclude the possibility that Russia might be tempted into taking an aggressive act against one of more allies.

These three judgements are of most direct concern to those NATO allies located closest to Russia proper (Walt’s fourth criterion), since the principal scenario of deepest concern to NATO is a scenario where Russia exploits its concentration of offensive power during a major exercise (such as ZAPAD 2017), to send 15-20 Battalion Tactical Groups (BTGs) into a Baltic state in reaction to some perceived grievance (e.g., mistreatment of a Russian ethnic minority) or some target of opportunity (e.g., reacting to an incident in which a Russian aircraft was

³² 2018 Brussels Summit Declaration, para. 6.

mistakenly shot down). In a 2016 wargaming analysis, RAND concluded that absent a defense-in-being in the Baltics equal to about seven NATO brigades (28-30 battalions), it would take Russia no longer than 60 hours (less than 3 days) to reach the outskirts of Tallinn or Riga in a *coup de main* attack, even if NATO had a week of warning.³³ The authors contend that the threat by NATO to escalate to nuclear weapons use to compel the Russians to halt their invasion would be “both unlikely and unpalatable.”

A second form of allied consensus on Russian threat perceptions is the periodically updated, in highly classified form, Joint Threat Assessment (JTA). JTAs are negotiated within NATO’s Civilian Intelligence Committee, which is comprised of the leaders of each ally’s foreign intelligence service. In the U.S. case, that official is the Director of Central Intelligence (DCI). They tend to be far more specific and detailed than the more political statements issued at Summits and Ministerial meetings. For example, in one case where a NATO intelligence assessment was made public, NATO estimates Russia’s “comparatively large” non-strategic nuclear arsenal to be comprised of “1500-2000 warheads maintained in central storage depots, including lower-yield warheads for dual-capable air-, sea-, and ground-launched cruise missiles and air defense missiles.”³⁴

In response to Russia’s intervention in Ukraine in 2014 and the growing number of threats to allies’ interests emanating from the South, NATO in 2017 created a new Joint Intelligence and Security Division (JISD) to facilitate the Headquarters’ intelligence analysis functions. The JISD is headed by a new Assistant Secretary General, originally German Ambassador Arndt von Loringhoven, with a U.S. Deputy, Major General Raul Escribano. The JISD does not collect its own intelligence, but assesses information provided by allied services.³⁵

These “national inputs” can be quite varied. As the 2018 ECFR study on European attitudes on nuclear deterrence found, NATO allies also differ on the nature and sources of the threats and challenges confronting the Alliance. For example, in a Spring 2020 Pew Research Center poll, seven non-nuclear NATO allies chosen for case study in this dissertation (Belgium, Canada, Denmark, Germany, Italy, Netherlands and Spain) were profiled and in none did a majority of those asked cite “long-standing conflicts between countries” as a “major threat;” whereas in all three NATO nuclear states (U.S. UK and France) a majority

³³ David A. Shalpak and Michael W. Johnson, *Reinforcing Deterrence on NATO’s Eastern Flank: Wargaming the Defense of the Baltics* (Santa Monica: RAND, 2016).

³⁴ Jessica Cox, “Nuclear Deterrence Today,” *NATO Review*, June 8, 2020, 5. Cox notes that Russia has also modernized about 80% of its strategic arsenal since the early 2000s (*Ibid.*, 4).

³⁵ “Allied Intelligence Chiefs Discuss Countering Cyber-Attacks, Disinformation,” NATO Press Release, November 28, 2018.

did.³⁶ A country-by-country assessment of Russian threat perceptions in the eleven case study nations will be provided in the next Chapter, taking into account geographic proximity.

5.1.4. Transatlantic Alignment

Transatlantic alignment relates to an ally's relationship to the leader of NATO – the United States – and the effect of that relationship on decisions it makes concerning various security arrangements and orientations within the Alliance. In part this is a measure of dependency, and dependency can vary over time. In strategic eras when the assessment of the threat is extremely high, dependency increases, and vice versa. Dependency also reflects an ally's intentions and ambitions regarding future autonomy, and relative risks that an ally is willing to take in the name of advancing that goal. This latter consideration was very much highlighted when Ursula von der Leyen, in her new role as President of the European Commission, and no longer as German Defense Minister, said in 2019 that European member states of NATO should be willing to act “boldly” to achieve strategic autonomy from the United States, arguing that history has shown that great achievements are possible if nations are prepared to take risks.³⁷

This dissertation has as its baseline the recognition that the 11 allies being examined with respect to DCA participation obviously had made a prior decision that it was in their national interest to join NATO and to remain within the Alliance, and hence derived benefits from America's engagement, including extended nuclear deterrence. I hypothesize that the 11 allies studied in this dissertation can be roughly divided into two groupings and that there is a correlation, or at least a causal inference, between the groupings and DCA participation and non-participation.

The first group comprises those allies among the 11 who historically and still today tend to look to the United States and their bilateral relationships therewith as the ultimate guarantor of their security. These nations tend to either not be in the EU or exhibit EU-skeptic tendencies. The dissertation posits that the following fall into this category: Canada (not in EU), Denmark (in EU but opts out of CSDP), Norway (not in EU), Portugal (historically tied most closely to the UK and US), and Turkey (not in EU), though the current strains with the United States over its Russian arms purchases make it difficult to categorize Turkey as “pro-U.S.” The second group comprises allies historically and still

³⁶ “Despite Pandemic, Many Europeans Still See Climate Change as Greatest Threat to Their Countries,” Spring 2020 Global Attitude Survey, Pew Research Center, 2020, Question 13a.

³⁷ “Speech by President-Elect von der Leyen in the European Parliament Plenary on the Occasion of the Presentation of her College of Commissioners and their Programme,” European Commission Press Release, November 27, 2019.

today the strongest proponents of the EU's "broadening and deepening" integration process: Belgium, Germany, Greece, Italy, Netherlands, and Spain. Four out of five in the first group do not participate in DCA; five out of six in the second grouping do, as shown below (outliers highlighted in yellow):

U.S. Ally	Alignment More Pro-US or Pro-Europe?	DCA Participant or Non-Participant?
Belgium	More Pro-Europe	Participant
Canada	More Pro-US	Non-Participant
Denmark	More Pro-US	Non-Participant
Germany	More Pro-Europe	Participant
Greece	More Pro-Europe	Participant
Italy	More Pro-Europe	Participant
Netherlands	More Pro-Europe	Participant
Norway	More Pro-US	Non-Participant
Portugal	More Pro-US	Non-Participant
Spain	More Pro-Europe	Non-Participant
Turkey	More Pro-US	Participant

Table 9: Allied Alignment

Why might this be so? On first impressions, it might seem more logical that those allies most tied to the United States would be in DCA, since the United States encourages the "widest possible" participation in this nuclear-sharing arrangement. However, this dissertation has shown that with the exception of Germany the United States exerts no pressure, let alone coercion, to ensure such participation, and that allies are of the view that there are no adverse consequences for their non-participation. In short, allies have freedom of choice.

I hypothesize that the consequence of being more U.S.-aligned within NATO as opposed to more Europe-aligned is that these allies are more confident that the United States can be *trusted* to make sensible and sound decisions with regard to NATO's nuclear posture than other allies. As a result, they are less inclined to join in the nuclear-sharing arrangements that would give them greater voice in discussion of nuclear policies and postures. By contrast, the second grouping, which tends to be more concerned that the United States can be trusted in this respect, tends to look to DCA to ensure they are seated at NATO's nuclear "table" and hence in a position to try to directly influence and if necessary restrain U.S. leadership on Alliance nuclear questions. These allies have, perhaps, taken to heart Richard Neustadt's warning that alliances tend to create a "false sense of intimacy;" that is, a confidence on the part of junior partners

that the leader of the alliance will indeed consult with them on matters of priority interest to all.³⁸ For these allies, another maxim comes to mind, one credited to Ronald Reagan: “trust, but verify.” This IV is, then, an *inverse relationship* metric: the *closer* the bilateral alignment with the United States, the *lower* the metric measuring likelihood to join DCA.

As David Yost has observed, traditional proponents of a robust NATO DCA posture believe that “the operational role provides those allies bearing host and delivery responsibilities with credibility and influence in the policy formulation process” and that were the DCA mission to be ended, “the allies would probably lose that influence and sense of participation, and greater political and strategic responsibilities would be placed on the shoulders of the United States.”³⁹ This assessment is shared by Heiner Brauss and Christian Mölling: “this risk sharing is the Europeans’ ‘entry ticket’ for participating in the nuclear planning at NATO and, in the case of an exercise or mission being planned, for being consulted.”⁴⁰ Or, as one allied official expressed it: “delivery or basing nations do have increased influence at NATO; at the strategic level, these nations have a reason for engaging with the United States through the NPG, and at the military level this opens up opportunities for value-added engagement, capability development, and activities such as exercises.”⁴¹

5.1.5. Status/Ranking within NATO

For the three “major” NATO allies (the U.S. UK and France) there is no question but that possessing nuclear weapons is seen as conferring extra status and influence within the Alliance. Nuclear weapons status has for these three nations, known collectively as the “P3,” provided each of them, *inter alia*, together with Russia and China (the “P5”), a permanent seat on the UN Security Council that carries with it veto authority over all UNSC Resolutions. At NATO the first and highest-ranked form of informal consultations when a major issue is confronting the Alliance, or when an important policy or initiative is being developed, is to convene a meeting with officials from the other two P3 nations.

P3 consultations, however, do not sit well with Germany, which considers itself equivalent in status and ranking to the UK and France and has for years sought a permanent seat on the UNSC in its own right. As a result, P3 consultations are

³⁸ Richard E. Neustadt, *Alliance Politics* (New York: Columbia University Press, 1979).

³⁹ Yost, 1411.

⁴⁰ Heiner Brauss and Christian Mölling, “Germany’s Role in NATO’s Nuclear Sharing: The Purchasing Decision for the Tornado Successor Aircraft,” *German Council on Foreign Relations Policy Brief No. 4*, February 2020, 4.

⁴¹ Interview, N1.

normally either folded into an “at 4” meeting, called the “Quad,” to include Germany, or a “Quad” meeting is conducted immediately thereafter.

The “fact of” the Quad’s existence is controversial among the other allies, especially Italy, which considers itself in the “second tier” of allies after the United States. For this reason, American diplomats are instructed never to mention the word “Quad” in conversations with non-Quad diplomats or military officers. To address Italy’s angst, it is often the case that meetings of the Quad are followed by a meeting of what is called the “Big 5” (the Quad plus Italy).

Then there are all the rest – though with one important exception. That exception is the so-called “Small Group” consultative meetings that periodically occur among the NATO “nuclear stake-holders;” that is, the nuclear weapons states plus the DCA-participating allies. Much of the NPG’s work is conducted one level below Defense Ministers by senior officials coming from capitals to convene in meetings of the High Level Group (HLG). In effect, the Small Group is an informal sub-set of the HLG. For allies that are not among the P3, the Quad, or the Big 5, being a DCA basing nation and/or a DCA aircraft contributing nation earns you a seat in the Small Group and thus provides a venue for status, rank and influence that separates them from the other 26 allies, who have to rely on the larger NPG/HLG gatherings, bilateral meetings with the United States, or ad hoc multiparty meetings of varying “geometries” to have their voices heard during nuclear policy and posture consultations.

As a senior Obama official interviewed said, referring to allies that do not participate in DCA, “their voice on nuclear matters is necessarily less important. Informal consultations with the basing countries come first, to get a consensus with them.”⁴² To illustrate this, at meetings of the NPG or HLG, it is an accepted “rule” at NATO that allies who are not in this nuclear “club” (i.e., not in the Small Group) are not to intervene, unless, perhaps, no nuclear stake-holder ally wishes to speak. Moreover, as one senior NATO official interviewed explained:

DCA participation does confer extra influence. Pre-negotiation with the HLG Small Group plays an important role, and the High Readiness nations get pre-consulted [before that] by the United States and the NATO International Staff.

In sum, as Yost has observed, the “operational role” that comes with being a DCA participant “provides those allies bearing host and delivery responsibilities with credibility and influence in the policy formulation process; it is argued that, if the existing NATO arrangements were terminated, the allies would probably lose that influence and sense of participation, and greater political and strategic

⁴² Interview, US1.

responsibilities would be placed on the shoulders of the United States.”⁴³ This rank ordering is depicted below:

CONSULTATIVE VENUE	MEMBERS
P3	US, UK, FR
Quad	P3 + GER
Big 5	Quad + IT
HLG Small Group	Big 5 + BE, GR, NETH, TUR
Ad Hoc Meetings with others	ALB, BUL, CAN, CRO, CZ, DK, EST, HU, ICE, LAT, LITH, LUX, NMAC, MONT, NOR, POL. PORT, RO, SVK, SLV, SP
NPG/HLG	All 30 allies

Table 10: Consultative Venues at NATO

This dissertation will examine in the next chapter how important it is to each of the 11 individual allies selected for case study to enjoy, or not, membership in this “club” via the decisions they have made with regards to DCA.

5.2. Check for Endogeneity or Omitted Variables

5.2.1. Ruling Party Orientation

Are left-leaning or center-left leaning ruling coalitions more likely to choose to opt-out of DCA than right-leaning or center-right coalitions? The facts suggest not. Take Italy, for example. As will be elaborated in Chapter Six, Italy has been an active participant in NATO nuclear-sharing arrangements without interruption from the time of the Alliance’s first summit in 1957. During these 64 years there have been 55 Italian governments, and those ruling coalitions have covered the left-right spectrum in orientation and composition, including technocrat governments. For Belgium, Germany and the Netherlands, who also have been active participants without interruption during these years, the numbers are 34, 23, and 26, respectively. In contrast, Denmark has without interruption been nuclear-free since NATO first accepted U.S. nuclear-sharing arrangements 64 years ago. During this period there have been 15 Danish governments, of all stripes. For Norway and Portugal, also nuclear-free without interruption since the beginning, the numbers are 23 and 32, respectively. For Portugal, the Prime Ministers in this period have ranged across the spectrum from the right-wing

⁴³ Yost, 1411.

autocrat Salazar and one Colonels' junta to a number of Socialists. In Greece, the country remained in the NATO nuclear-sharing arrangements during the Colonels' coup era but also even under the far-left PASOK era in the early 1980s.

5.2.2. Size (GDP and Population)

Is a “large” NATO ally (measured by GDP or population) more likely than a “small” NATO ally to participate directly in DCA, as many theorists within the IR community suggest? The facts suggest not, at least in terms of size being a stand-alone determinant. To be sure, Germany, Turkey and Italy – three of NATO’s largest European states by either measure – are direct DCA participants. However, Spain and Canada, which have larger populations than the mean for either GDP or population among the 11 allies examined here (\$1B and 33.6M respectively), are out of DCA, and Belgium, Greece, and the Netherlands, which are below these two means, are in DCA. Outliers are highlighted in yellow.

Country	Size (GDP)	Size (Population)	DCA: In or Out?
	Mean = \$1B	Mean = 33.6M	
Belgium	\$448B	11.375M	In
Canada	\$1548B	37.059M	Out
Denmark	\$315B	5.797M	Out
Germany	\$3364B	82.928M	In
Greece	\$190B	10.728M	In
Italy	\$1696B	60.431M	In
Netherlands	\$773B	17.231M	In
Norway	\$384B	5.314M	Out
Portugal	\$200B	10.300M	Out
Spain	\$1176B	46.724M	Out
Turkey	\$992B	82.320M	In

Table 11: GDP and Population⁴⁴

⁴⁴ Source: Population Data from *The World Bank/Data*, The World Bank Group, 2019. GDP Data from NATO, *Defense Expenditures of NATO Countries (2013-2020)*, NATO Press Release PR/CP(2020)104, October 21, 2020, Table 5, p. 10. Figures in Billion US Dollars (2015 prices and exchange rates).

5.2.3. Size (Armed Forces)

What about allies with large militaries? Alliance dependence theory would suggest that the member states that have the least military power, as measured, for example, by the size of their armed forces, are the most dependent on the Alliance leader. In theory, then, states such as Luxembourg, which has only a 600-man army, would be more likely, then, to succumb to requests and/or demands by the United States to do more, make a greater contribution or take stronger action. The corollary of dependency is self-sufficiency. Allies with large armed forces, such as France, can build more independence of action into their foreign policies and defense postures and hence be more resistant to U.S. entreaties. Does this presumption apply in the case of DCA? Are allies with smaller armed forces among the 11 more likely than those with larger military establishments to be among those that elect to participate in this mission?

The graph presented below suggests not. Denmark, Norway, and Portugal, which rank low among the 11 in terms of the size of their respective armed forces, do not participate in DCA, while Turkey and Germany, which have among the largest militaries in NATO, do participate. Outliers are highlighted in yellow.

Country	Size of Military (personnel in uniform)	DCA: In or Out?
Belgium	Small	In
Canada	Medium	Out
Denmark	Small	Out
Germany	Large	In
Greece	Medium	In
Italy	Medium	In
Netherlands	Small	In
Norway	Small	Out
Portugal	Small	Out
Spain	Medium	Out
Turkey	Large	In

Table 12: Size of Military⁴⁵

The size of a nation's military, however, generally correlates with the size of a nation in terms of its population. Hence the results of the graph depicted above

⁴⁵ Source: Data from *The Military Balance*, 2019. IISS.

are, not surprisingly, consistent with the results depicted in the check for endogeneity that preceded it.

5.2.4. Geography

The following chart summarizes the geography factor for NATO. It shows that while geography does matter as an element in the balance of threat IV, as a *stand-alone* factor it is not a convincing determinant. To begin with, in an era of intercontinental strategic nuclear threats, spatial proximity is less important as a vulnerability factor. In this sense, Canada and Turkey are at equal risk. But even in terms of conflict scenarios limited to the European theater, there are contradictions. To be sure, Germany, which is well to the east in Europe, and Turkey, which used to share a common border with the USSR, but not now with Russia, are direct DCA participants, while Portugal and Spain, which are much further to the west and do not have a common border with Russia, are not. However, Denmark, with its island of Bornholm only 300 km from Kaliningrad, and Norway, which has a common border with Russia, are not in DCA, while Belgium and the Netherlands, which are relatively far removed from Russia to the west geographically, are in. Outliers are highlighted in yellow.

Country	Borders Russia?	Proximity to Russia (K km)	DCA: In or Out?
Belgium	No	1.0K	In
Canada	No	1.3K	Out
Denmark	No	.3K	Out
Germany	No	.5K	In
Greece	No	.7K	In
Italy	No	1.4K	In

Table 13: Geographic Proximity to Russia

5.2.5. Level of Military Spending

A recent study by Jordan Becker and the author of this dissertation posits that allies that score well against the Wales Defense Investment Pledge are more inclined as a general rule to take their fair burden-sharing responsibilities more seriously.⁴⁶ But are they more likely to participate directly in DCA and vice versa? Although as noted a high level of defense spending makes it easier for an

⁴⁶ Jordan Becker and Robert Bell, "Defense Planning in the Fog of Peace: The Transatlantic Currency Conversion Conundrum," *European Security*, January 20, 2020, 12.

ally to absorb the extra costs of DCA, as a stand-alone factor, it does not appear to be determinant.

To be sure, Turkey and Greece, which score very well with respect to the “2% of GDP by 2024” goal, are direct DCA participants, and Canada, Denmark, Portugal and Spain, which opt out of DCA, are also lagging on the 2%. However, Germany, Italy, Belgium and the Netherlands, which rank far down the Wales Pledge listings, are also in the mission, and Norway, which is now above 2% is not. Outliers are highlighted in yellow.

Country	Above/Below 2% of GDP in Defense Spending?	DCA: In or Out?
Belgium	Well Below (1.1%)	In
Canada	Below (1.45%)	Out
Denmark	Below (1.47%)	Out
Germany	Below (1.57%)	In
Greece	Above (2.58%)	In
Italy	Below (1.43%)	In
Netherlands	Below (1.48%)	In
Norway	Slightly Above (2.03%)	Out
Portugal	Below (1.63%)	Out
Spain	Well Below (1.16%)	Out
Turkey	Slightly Below (1.91%)	In

Table 14: Defense Spending as % of GDP ⁴⁷

5.2.6. EU “Strategic Autonomy”

Endogeneity applies to independent variables that influence the dependent variable but which have been mistakenly or inadvertently omitted from one’s analysis. By definition, then, any factor which might *in time* bear on the dependent variable but which is still in its embryonic stage should be excluded. That does not mean, however, that it is not of interest. An excellent example is the current European debate over “strategic autonomy” and the position that various countries in Europe, including France and Germany in particular, are taking with regards to that goal.⁴⁸

A logical question to examine in this dissertation is whether any of the 11 allies of interest appear to “hedge their bets” with regard to relying on NATO, and

⁴⁷ Source: Data from NATO, “Defense Expenditure of NATO Countries (2013-2020), 3.

⁴⁸ For a concise review, see: Natalie Tocci, “European Strategic Autonomy: What It Is, Why We Need It, How to Achieve It,” Rome: Istituto Affari Internazionali (IAI), 2021.

hence U.S., extended nuclear deterrence as the “supreme guarantee” of their security by relying instead on an “alternative” nuclear umbrella? Specifically, do any of the 11 appear to believe that the Common Security and Defense Policy (CSDP) of the EU, and particularly its Permanent Structured Cooperation (PESCO) arrangements, allow Member States of the EU to look to that organization, vice NATO, for primacy in providing security for Europe? The short answer is no, at least in terms of any near-term timeframe. But in the longer run, this could change.

Under Article 42.7 of the EU’s 2009 Lisbon Treaty, “If a Member State is the victim of armed aggression on its territory, the other Member States shall have towards it an obligation of aid and assistance by all the means in their power, in accordance with Article 51 of the United Nations Charter.”⁴⁹ However, this important treaty clause has a crucial caveat:

This shall not prejudice the specific character of the security and defense policy of certain Member States. Commitments and cooperation in this area shall be consistent with commitments under the North Atlantic Treaty Organization, which, for those States which are members of it, remains the *foundation* of their collective defense and the *forum* for its implementation. (emphasis added)

This qualifier, inserted to this Article at the insistence of, *inter alia*, the UK, established a rule of primacy: EU Member States belonging to NATO are to look first and foremost to NATO for collective security in the event of aggression. In fact, there are 21 nations that belong to both organizations, though one of these (Denmark) has chosen to opt out of the EU’s CSDP dimension. That said, most EU Member States see this “rule” as transitory in duration as the EU works to create the “appropriate level of ambition and strategic autonomy” it has established as a common community goal.⁵⁰

This commitment to greater European self-sufficiency in defense and security matters was intensified and accelerated by the substance and tone of President

⁴⁹ For example, Denmark, Sweden, and Finland have a “specific character” to their security and defense policies owing to commitments they have entered into under various Nordic Defense Cooperation accords.

⁵⁰ “Shared Vision, Common Action: A Stronger Europe. A Global Strategy for the European Union’s Foreign and Security Policy,” (Luxembourg: Publications Office of the European Union, June 2016), 23. The current EU High Representative for Foreign Affairs and Security Policy and Vice President of the European Commission, Josep Borrell, in a November 13, 2020 commentary, defined “European strategic autonomy” as “an ability to think for oneself and to act according to one’s own values and interests.” [Josep Borrell, “European Strategic Complacency is Not an Option,” Project Syndicate on-line, November 13, 2020 (<https://www.project-syndicate.org/commentary/why-the-eu-must-achieve-strategic-autonomy> -by-Josep-Borrell-2020-11)].

Trump's statements and policies regarding Europe on multiple issues during his four year term, including not only his fixation on inadequate European defense spending, but also his policies and Tweets concerning trade policies, climate change, the Iranian nuclear deal, and, at least initially, the validity of Article 5 itself. On December 6, 2018, Chancellor Merkel rebuked President Trump's criticisms of Europe's defense self-sufficiency ambitions by declaring: "What is really important, if we look at the developments of the past year, is that we work on a vision of one day creating a real, true European army."⁵¹ Merkel warned that "only a stronger Europe is going to defend Europe," and added, "Europe must take our fate into our own hands if we want to protect our community."

In testimony to the Senate Foreign Relations Committee in September 2018, former U.S. Permanent Representative to NATO, Ambassador Nicholas Burns, said:

NATO is facing one of its most difficult crises in seven decades. It is not a crisis of military strength or readiness. ... The crisis is one of allied trust and confidence in America's leadership of NATO. ... President Trump's repeated public doubts about NATO's importance to the U.S. have had a highly negative impact on European leaders and European public opinion. For the first time in NATO's seven-decade history, there is growing concern in Europe and Canada about an American President's commitment to the alliance."⁵²

This perspective was reinforced in a February 2019 report by The HKS Belfer Center co-authored by Ambassador Burns and another former U.S. Permanent Representative to NATO, Lt.Gen. Douglas Lute. In their report, the two ambassadors warn that President Trump's "troubling anti-NATO and anti-Europe bias has caused European governments to question the credibility of the U.S. as the leader of the West for the first time since the Second World War" and note that "European public confidence in America is also at historically low depths."⁵³

In addition, many EU Member States also belonging to NATO strongly contest any suggestion that defense and/or security missions in Europe are "NATO's mission alone" to perform.⁵⁴ After the 2015 terrorist attacks in Paris, France

⁵¹ "Angela Merkel Calls for a 'Real, True European Army,'" *The Financial Examiner*, December 6, 2018.

⁵² "Testimony to the Senate Foreign Relations Committee Assessing the Value of the NATO Alliance by Ambassador (ret.) Nicholas Burns, Harvard University, September 5, 2018, Prepared Remarks released by Ambassador Burns.

⁵³ Douglas Lute and Nicholas Burns, *NATO at Seventy: An Alliance in Crisis* (Cambridge (MA): HKS Belfer Center, February 2019), 2.

⁵⁴ For example, in February 2018, France took sharp exception to a public statement in Berlin by U.S. Defense Secretary Mattis that Article 42.7 meant that "common defense is a NATO mission and NATO mission alone." However, Poland and the Baltic countries take a different view than

elected to invoke the EU Solidarity Clause, and not NATO's Article 5. Over the last two decades, the EU has approved over 20 CSDP operations and missions, as shown below:

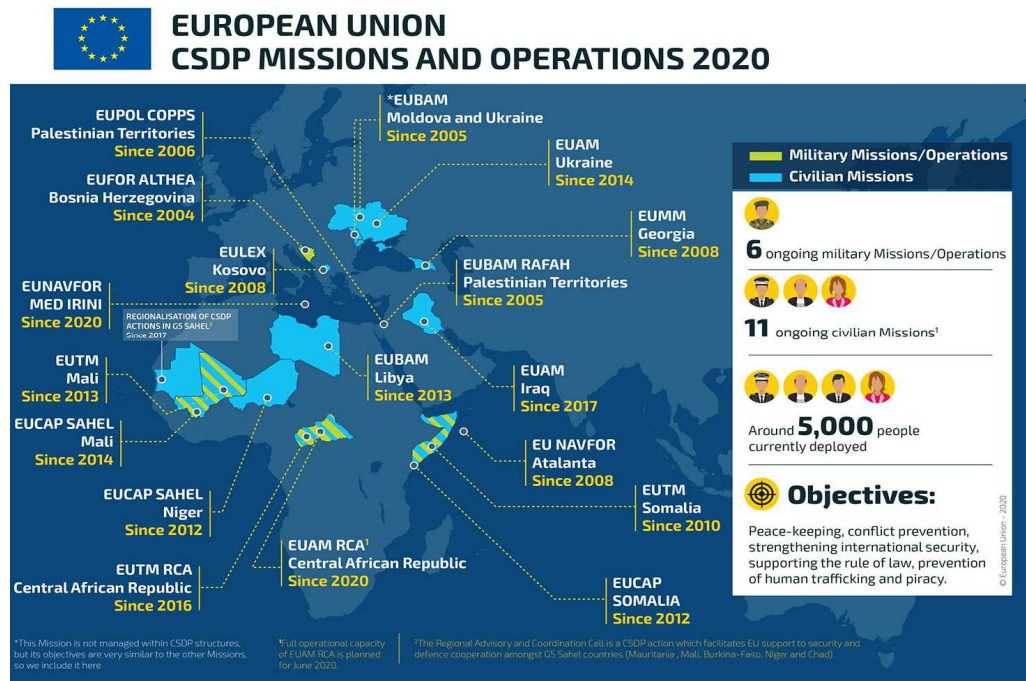


Figure 17: EU CSDP Missions & Operations in 2020

The EU is also taking major steps to try to make more progress in moving towards true “strategic autonomy,” as noted in Chapter 5. This includes having taken initial steps towards creating a genuine EU headquarters in Brussels, establishment of the €13-billion European Defense Fund to harmonize equipment procurement, designation of a “coalition of the willing” among the 25 EU Member States willing to pursue more military integration via the PESCO mechanism, and establishment of the Coordinated Annual Review on Defense (CARD) process for evaluating defense spending and capability development trends. In November 2020, EU leaders commissioned a threat analysis to detail the challenges the EU will likely face over the next 5-10 years and directed the drafting, in 2021-2022, of a so-called “Strategic Compass” to define what level of

France and are much more in line with U.S. perspectives on this issue. As Jolyon Howorth has pointed out, “countries with particularly strong views about the United States” recoil at an interpretation of “autonomy” as meaning “separation,” though they are in accord that it can also mean “self-sufficiency.” [Jolyon Howorth, “Strategic Autonomy: Why It’s Not About Europe Going It Alone,” *Wilfried Martens Centre for European Studies* (Brussels: August 2019), 17].]

ambition the EU should establish in terms of defense capabilities to meet these threats.⁵⁵

Yet at present and for the foreseeable future, NATO remains the primary security institution for Europe, and the EU's building of its defense identity remains very much a "work in progress." The discrepancies are enormous:

- Total defense spending of all 30 NATO members is \$1.0 Trillion. But the total defense spending of all EU member states (minus the UK) is only about \$225 billion – less than 25% of the NATO total.
- With regard to EDF, PESCO and CARD, a report by the European Defense Agency in November 2020 warned that these recent EU defense initiatives "have yet to produce a significant and positive impact on the European defense landscape."⁵⁶
- The EU as a defense organization lacks an integrated military command or established headquarters (like NATO's SHAPE), and instead must rely on ad hoc coalitions being formed to meet various CSDP operations and mission requirements, with a lead Member State offering a national headquarters to anchor the effort.
- EU Member States also collectively lack – or are woefully deficient in – key "enablers" of high intensity conventional conflict. The Defense Minister of France, Florence Parly, enumerated these deficiencies in a remarkably candid address in Washington in March 2019 in which she criticized her fellow EU Member States for being willing to be "free-riders of their own security": "If you put together the U.S. and Europe, you will see that the U.S. has 71% of the surveillance aircraft, 72% of attack helicopters, 81% of strategic transport, 91% of tankers, 92% of MALE [Medium-Altitude/Long-Endurance] and HALE [High-Altitude/Long-Endurance] UAVs [Unmanned Aerial Vehicles], and 100% of strategic bombers and ballistic missile advance alert systems. The European have a hell of a homework in front of them if they want to stand on their own two feet and really share the burden with America."⁵⁷

These capability gaps have serious consequences for the credibility of the EU as an alternative collective security arrangement to NATO. In an April 2019 report, the International Institute for Strategic Studies (IISS) assessed that *even if* the UK

⁵⁵ Daniel Fiott, "The EU's Strategic Compass for Security and Defence: What Type of Ambition is the Needle Pointing To?," *Brussels School of Governance Centre for Security, Diplomacy and Strategy*, March 9, 2021, 2.

⁵⁶ "Low Defense Spending Puts Strategic Autonomy At Risk, EU Review Says," *Politico*, November 24, 2020.

⁵⁷ Madame Florence Parly, *Ministre des Armees: Discours a l'Atlantic Council: The US-French Relationship in a Changing World*, Washington, March 18, 2019.

continued to conduct military activities with its former EU partners, the European members of NATO (i.e., NATO minus the United States) would need to invest between \$288-357 billion to fill the capability gaps created by the United States standing aside in a “limited war” scenario in which Russia invaded Lithuania or Poland, and that even if this additional funding were made available by these European nations, it would take 10-15 years to make significant progress in fielding the needed weaponry.⁵⁸ The IISS drily cautioned that this conclusion should be seen as a “reality check” by advocates of EU strategic autonomy.

Commenting at a March 2020 meeting of EU Foreign Ministers on the strategy/force mismatch that characterized the EU’s defense posture at present, the new EU High Representative for Foreign Affairs and Security Policy, Josep Borrell, decried “wishful thinking” and said, “If you forget about your capabilities and you only think about your purposes then it’s not political, that’s magic.”⁵⁹ Or, as a Harvard Kennedy School report concluded in 2019: “Previous efforts to increase European defense cooperation and capabilities rarely faltered because US/NATO could not adapt or accommodate them, but rather because Europe’s follow-through fell short of its own ambition.”⁶⁰ At a speech at the College of Europe in March 2021, NATO SYG Stoltenberg urged the EU to strengthen “transatlantic strategic solidarity” rather than create false expectations regarding genuine strategic autonomy.⁶¹

A second factor negatively impinging on the EU’s progress in moving towards its goal of strategic autonomy is Chinese economic, technological and intelligence-gathering penetration of Central and Eastern Europe – a development with obvious implications for NATO as well. These activities include, most notably, the “17+1” PRC-Central and East European cooperation initiative launched in 2012 that has, since 2019, included Greece. One recent report on this development noted:

In 2019, as the 5G question began to overshadow all other concerns, China’s intention to build a sphere of privileged economic interest in the region assumed a different flavor, awakening Washington to its potentially damaging impact on NATO and transatlantic security. In

⁵⁸ Douglas Barrie, Ben Barry, Dr. Lucie Beraud-Sudreau, Henry Boyd, Nick Childs, and Dr. Bastian Giegerich. *Defending Europe: Scenario-Based Capability Requirements for NATO’s European Members* (London: IISS, April 2019), i.

⁵⁹ “No-Fly Zone Flop Undermines EU’s Grand Ambitions,” *Politico*, March 6, 2020.

⁶⁰ Seth A. Johnson, *A Europe That Protects? U.S. Opportunities in EU Defense*, Harvard Kennedy School Belfer Center Policy Brief, November 2019, 13
https://www.belfercenter.org/sites/default/files/files/publication/EuroDefense_0.pdf.

⁶¹ “NATO: Keeping Europe Safe in an Uncertain World,” Speech by NATO Secretary General Jens Stoltenberg at the College of Europe in Bruges, March 4, 2021.

effect, the 17+1 project is seen today as part and parcel of the larger strategy pursued by the Chinese Communist Party to penetrate Europe, reduce American influence on the continent, and, most importantly, penetrate digital networks vital to the military and economic future of the NATO alliance.⁶²

Nonetheless, EU strategic autonomy has its strong champions. While acknowledging the crucial role played by NATO in Europe's security and the challenges posed by the rise of China, President Emmanuel Macron of France has been in the vanguard of European leaders pushing hard for a greatly strengthened and more self-sufficient European defense identity and capability. In a full-page op-ed in the *Boston Globe* in March 2019, he insisted that "no community can create a sense of belonging if it does not have boundaries that it protects."⁶³ Macron enumerated what elements he felt are essential to this purpose post-BREXIT: "A treaty on defense and security should define our fundamental obligations in association with NATO and our European allies: increased defense spending, a truly operational mutual defense clause, and the European Security Council, with the United Kingdom on board, to prepare our collective decisions." Macon also was the catalyst behind the creation in 2019 of the European Intervention Initiative, a multinational military formation that is outside of either the NATO or EU command structures and includes France, the UK and other European nations.⁶⁴

France's advocacy of attaining EU strategic autonomy sooner rather than later has also featured dramatic initiatives in the nuclear domain. Despite the exit of the UK from the EU, and with it its independent nuclear deterrent, France, under President Macron, has gone farther than any of his predecessors in suggesting innovative ways by which a French "nuclear umbrella" might be extended over the EU. These proposals have been advanced by Macron in response not only to the uncertainties concerning the U.S. commitment that were engendered by President Trump, but also with a clear eye to the more threatening European strategic environment post-Crimea. As Bruno Tertrais observed in a report for the Finnish Institute of International Affairs (FIIA) in late 2018:

While the idea of a "European nuclear deterrent" has a long history, it has recently made a comeback in the light of Russian aggression on the continent, growing tensions in the transatlantic relationship since the election of Donald Trump, as well as the British decision to leave the

⁶² Andrew A. Michta, "China in Europe and Transatlantic Security," International Center for Defense and Security, Estonian Foreign Policy Institute Brief, November 2020, 1.

⁶³ Emmanuel Macron, "In Defense of Europe," *Boston Globe*, March 5, 2019, A9.

⁶⁴ "Macron Parades Desire for European Army on Bastille Day," *The Times (UK)*, July 15, 2019.

European Union. Voices are being heard in Germany in particular, arguing for stronger European nuclear autonomy.⁶⁵

In a February 2019 interview by William Drozdiak, Macron confirmed that the phrase “all means at their disposal” in the January 2019 French-German bilateral Treaty of Aachen, which commits the two countries to “providing aid and assistance by all means at their disposal, including armed forces, in case of aggression against their territory,” would include the French nuclear forces.⁶⁶ A year later, in an address to military students at L’Ecole de Guerre, Macron elaborated on this policy. This portion of his “discourse” warrants quotation in full:

Our nuclear forces have a deterrent effect in themselves, particularly in Europe. They strengthen the security of Europe through their very existence and they have, in this sense, a truly European dimension. On that point, our independent decision-making is fully compatible with our unwavering solidarity with our European partners. Our commitment to their security and defense is the natural expression of our ever-closer solidarity. Let’s be clear: France’s vital interests now have a European dimension. In that spirit, I would like strategic dialogue to develop with our European partners, which are ready for it, on the role played by France’s nuclear deterrence in our collective security. European partners which are willing to walk that road can be associated with the exercises of French deterrent forces.⁶⁷

A month later, in an interview at the Munich Security Conference conducted by its President, Wolfgang Ischinger, Macron confirmed that France was now prepared to conduct joint nuclear exercises with willing EU partners with the goal of developing a joint European strategic culture. The French President explained the rationale for this dramatic offer in the following terms:

Germany has been an indirect nuclear partner of the United States in NATO, and nuclear sharing always had to go to Germany through the

⁶⁵ Bruno Tertrais, “The European Dimension of Nuclear Deterrence: French and British Policies and Future Scenarios, (FIIA Working Paper 106.” (*Helsinki: FIIA, November 2018*), i. Another, non-German, “voice” calling for stronger European nuclear autonomy is former EDA Chief Executive Nick Whitney. In a December 2018 ECFR paper he argued that “the UK and France should convert the idea of a European deterrent from mere notion into credible offer, by thickening their bilateral nuclear cooperation and sending growing signals that indicate their readiness to protect others.” [Rapnouil, Varma and Whitney, 1].

⁶⁶ William Drozdiak, “France is Prepared to Extend its Nuclear Deterrent to Germany,” *The Washington Post*, February 28, 2019.

⁶⁷ Emmanuel Macron. Address to L’École de Guerre, February 7, 2020..

United States. Now we need to overcome that heavy history and conduct calm, level-headed debate and think in a European way.⁶⁸

Macron did not elaborate on the details or modalities of such joint nuclear exercise. However, Bruno Tertrais, who is well-connected with the French Ministry of Defense on nuclear matters, outlined possible options in his 2018 FIIA Working Paper. They included:

- A DCA-like program in which France stores part of its air-delivered nuclear missiles at bases in Germany or Poland;
- A European nuclear maritime task force, with EU naval combatant ships escorting a French carrier with aircraft on board that had tactical nuclear strike capabilities; and
- More likely (and less ambitiously), replacing NATO's SNOWCAT program with an identical EU program, wherein non-nuclear EU Member States would commit themselves to participate in a French nuclear strike with non-nuclear assets (for suppression of Russian air defenses).⁶⁹

In his MSC interview, Macron argued that the goal of EU strategic autonomy, including with regard to nuclear deterrence, is neither too ambitious nor only an ultimate and indefinite goal, insisting that in 10 years time, Europe will "have enough leverage to be sovereign," including in defense, so that it can "protect the basis of its sovereignty."⁷⁰

More recently, Macron sharply criticized German Defense Minister Annegret Kramp-Karrenbauer (known as "AKK") for saying in an October 2020 speech that "illusions of European strategic autonomy must come to an end" because "for the foreseeable future" ... "Europeans will not be able to replace America's crucial role as a security provider."⁷¹ AKK called for more military effort within Europe to "act independently and effectively in the future when it matters," but insisted that "this is something entirely different from believing that a European army – however it might be set up and composed – can keep America completely out of Europe and replace America completely."⁷²

Interest in the concept of an EU nuclear shield is not limited within the EU only to France, as Ischinger noted in his interview. For example, when Italy signed the NPT in 1969, it specifically attached a statement codifying its understanding that were the EU to evolve over time to become a true union, "the possibility of

⁶⁸ MSC website. Interview with Macron (video only). February 15, 2020.

⁶⁹ Tertrais, *FIIA Working Paper 106*, 8-9.

⁷⁰ Macron MSC Interview.

⁷¹ "German Defense Minister To Macron: EU Depends on U.S. Security Guarantee," *Politico*, November 17, 2020.

⁷² *Ibid.*

collective control over nuclear weapons is guaranteed.”⁷³ A German Member of Parliament (MP) close to Chancellor Merkel Tweeted after Macron’s *Ecole de Guerre* speech: “Europeans should take up immediately Emmanuel Macron’s offer. If it is serious, it is the first step towards integrating French nuclear deterrence into European defense.”⁷⁴ In February 2021, a Task Force of former senior U.S. and allied officials organized by the Chicago Council on Global Affairs concluded that, “Ultimately, European defense cooperation would benefit from a strong, European-oriented nuclear deterrent capability separate from the U.S. nuclear umbrella,” and recommended that “France and Britain should extend their nuclear deterrent to their European allies.”⁷⁵

Since the DCA version of F-35A fighters destined for certain U.S. NATO allies is not currently forecast to be ready for another half decade and Macron’s time line for true EU “sovereignty” is a decade, these two timelines are not as disconnected as might have been presumed. If – and it is a major “if” – the EU were to make significant progress during the coming years towards the closer integration Macron is calling for, including in its nuclear dimension, then that development could conceivably affect the final B61-delivery kit installation decisions Belgium, the Netherlands, Italy, Germany and perhaps Greece and Turkey could in the years ahead be facing.

That said, the debate over the level of ambition for EU strategic autonomy remains at an early stage. As a recent German analysis of a range of opinion polls concluded: “Europeans populations may support the goal in theory, but in practice remain largely reliant on the US” (i.e., “to do the fighting”).⁷⁶ “One former Italian Ambassador has argued that “The future of Macron’s initiative will depend very much on the long-term evolution of transatlantic relations” and that “although the U.S. presidential election in November (2020) might be a turning point, a transition to a French/European nuclear deterrent would probably be a bite too big to digest at this stage.”⁷⁷ If correct, EU evolution toward making CSDP a genuine rival to NATO with its own “EU Army” and nuclear umbrella would in the “best case” (from the perspective of the

⁷³ “Italy: Signature of Treaty on the Non-Proliferation of Nuclear Weapons (NPT),” *United Nations Office for Disarmament Affairs (UNODA) Treaties Database/Home*, accessed at [https://disarmament.un.org/treaties/a/npt/italy/sig/london on April 1](https://disarmament.un.org/treaties/a/npt/italy/sig/london%20on%20April%201), 2020.

⁷⁴ “Macron Calls for Coordinated EU Nuclear Defense Strategy – with France at its Center,” *Euronews*, February 8, 2020.

⁷⁵ Ivo Daalder, ed., *Preventing Nuclear Proliferation and Reassuring America’s Allies* (Chicago: Chicago Council on Global Affairs, 2021), 14.

⁷⁶ Ulrike Franke, “What Europe Thinks ... About Security and Defense,” *Internationale Politik Quarterly*, Winter 2021 (1/2021) issue, January 6, 2021.

⁷⁷ Carlo Trezza, “Macron’s Vision: A European Role for the French Nuclear Deterrent,” *European Leadership Network Commentary*, March 31, 2020.

enthusiasts for broader and deeper EU integration) be measured not in years but more likely decades. For now, at least, EU leaders themselves, including Macron and Merkel, continue to underscore their commitment to the avoidance of rivalries, redundancies and duplications.⁷⁸ At the February 2021 Munich Security Conference, Macron again called for movement to true strategic autonomy, but he also insisted, “I do believe in NATO.”⁷⁹

I do not agree with some assessments that the EU’s agreed eventual goal of true strategic autonomy is “all talk.”⁸⁰ The sense of geo-strategic estrangement that developed in Europe during Trump’s tenure did not in the end drive European allies into a primary reliance on the EU for collective defense, but the trend line is in that direction. It could regain momentum if President Biden’s current term of office should be followed by a return to the presidency of Donald Trump or another Republican championing a “Trumpist” policy of “America First.”

The end of Biden’s term in 2025 will coincide with the DCA aircraft nuclear upgrades previously mentioned. Accordingly, this dissertation recommends that future research on the NATO nuclear-sharing issue continue to closely monitor and assess developments in Europe’s internal debate over strategic autonomy, with a view to deciding whether in time it warrants inclusion as an Independent Variable that helps explain allies’ decisions on DCA.

⁷⁸ Macron in MSC interview said: “I do believe we need NATO” and emphasized that the strategic dialogue he was calling for with regard to a nuclear dimension of an “EU of Defense” must also take place in a “NATO framework” that recognized there were “two pillars” to European security: NATO defense and an “EU of Defense.” In a May 2019 letter to the Pentagon rebutting U.S. concerns that PESCO and EDF risked “EU capabilities developing in a manner that produces duplication, non-interoperable military systems, diversion of scarce resources, and unnecessary competition between NATO and the EU,” Pedro Serrano, Deputy Secretary General of the EU External Action Service, and Timo Personen, European Commission Director General for the Internal Market and Industry, insisted that these two high-profile initiatives “are designed to support capabilities that are coherent, complementary and interoperable with NATO.” [“EU to US: Don’t Worry About Our Military Plans,” *Politico*, May 16, 2019].

⁷⁹ “France’s Macron: ‘I Do Believe in NATO’,” *Reuters*, February 19, 2021.

⁸⁰ See, for example, a recent commentary by the President of the Atlantic Council: Moritz Luetgerath, “Much Ado About Nothing? European Strategic Autonomy and the Transatlantic Alliance,” *The New Atlanticist Blogs*, March 27, 2019.

CHAPTER SIX

CASE STUDIES¹

6.0. BELGIUM

6.0.1. Nuclear-Sharing Antecedents

As a Founding Member of NATO and a nation on whose soil substantial numbers of U.S. troops have remained deployed ever since the end of World War II, Belgium is a NATO ally that has participated in U.S. nuclear-sharing arrangements from the beginning. It also linked its participation from the beginning with a demand for a parallel engagement with the Soviet Union and later Russia on nuclear arms control.

At the first NATO Summit in 1957, Belgian Prime Minister Achille Van Acker, a member of the Socialist Party, was guarded in his support of President Eisenhower's "atomic stockpile" offer, cautioning that "it would be a mistake to make it seem as if these consultations were aimed at a new start in the armaments race." Nonetheless, he agreed that "important decisions had to be taken for strengthening common defense."² Another prominent Belgian, former Prime Minister Paul Henri Spaak, also a member of the Socialist Party, presided at the Summit as NATO Secretary General, giving Belgium "two seats at the table." Spaak argued that in the wake of the Soviet Union's rejection of the Western disarmament proposals, NATO could not accept "a position by which the USSR would have the monopoly in Europe of nuclear weapons." On the contrary, he said, "the forces of the West must be as well-equipped as possible, and its defensive systems must be as powerful and efficient as it could be made."³

Two days later, at a follow-up NAC in Paris, Ministers refined the Communiqué that announced the agreement in principle to proceed with the atomic stockpile and IRBM decisions. Belgian Foreign Minister V. Larock argued against any delay in the adoption of the nuclear weapons by NATO or any linkage in the timing of those deployments to further Soviet disarmament overtures, lest the USSR "certainly prolong the disarmament negotiations and prevent them from

¹ The 11 cases will be examined in alphabetical order.

² *NATO 1957 Summit*, 16.

³ *Ibid*, 7.

reaching a conclusion, simply in order to hinder the reinforcement of NATO's defense."⁴

Given its geographic location in Europe, too far west to provide broad coverage of targets in the USSR, Belgium was not a nation proposed by SACEUR Norstadt for producing and hosting the *Jupiter* IRBMs that had been agreed in principle at the Summit.⁵ It was, however, according to published open sources, host to a significant number of the 7000 U.S. nuclear warheads stored in Europe for a range of delivery systems throughout the Cold War, with the first weapons arriving in November of 1963.⁶ These included nuclear air-to-air interceptor missiles and nuclear gravity bombs for the Belgian Air Force. Before transitioning to the F-16 in the early 1980s, the Belgian Air Force flew the F-84 (1951-1972) and the F-104 Starfighter (1963-1983). Both types of aircraft were configured for nuclear weapons delivery and maintained nuclear Quick Reaction Alert (QRA) responsibilities for SACEUR.

During the "double track" cruise missile/SS-20 era, Belgium agonized over its position. Favorably disposed in principle to directly participate, Belgium under its Prime Minister throughout that era, Christian Democrat Wilfried Martens, advised NATO when the Ground-Launched Cruise Missile (GLCM)/Pershing II deployment decision was taken in December 1979 that it would host 48 of the GLCMs. However, the scale of domestic opposition was soon evident. Over 80 organizations, including church groups, socialists, communist party members and peace activists, declared their opposition. As Tom Sauer has noted, due to its centuries-long history of foreign occupation, "Belgium has a pacifist culture."⁷ At a December 1979 rally in Brussels, over 50,000 protested against the missile deployments.

The Government had to backtrack, and in September 1980 it announced that it could only go forward if the engagement with the Soviet Union promised by President Carter were to fail. With Carter's defeat by Ronald Reagan two months later, and Reagan insisting there must be a massive build-up of U.S. military power before any talks were opened with the Soviets, domestic opposition in Belgium intensified. In 1981, 200,000 demonstrated, and in 1983,

⁴ NAC Ministerial follow-up, *Paris, 1957*, 6.

⁵ As noted in Chapter 2, in the end the U.S. deployed *Thor* IRBMs to the UK and *Jupiter* IRBMs were only based in Turkey and Italy. The *Thors* were eventually replaced by Royal Air Force "V" bombers, and, following the Cuban Missile Crisis understandings reached between President Kennedy and Premier Khrushchev, the *Jupiters* were retired, to be replaced by U.S. Polaris submarines on patrol in the Mediterranean Sea.

⁶ Norris, Arkin and Burr, 29.

⁷ "Tactical Nuclear Weapons and Euro-Atlantic Security: The Future of NATO," Paolo Foradori, ed. (New York: Routledge, 2013), 30.

400,000 turned out (4% of the nation's population). The latter was the largest demonstration ever seen in Belgium.⁸

By March 1983, the Reagan Administration had come around on the negotiations issue, and President Reagan outlined his “zero option” proposal to the Soviets. To add strength to this negotiating position – which many in Europe regarded as a non-starter if not an intentional effort by the Administration to ensure there was no arms control outcome – the Martens government allowed construction of bases for the GLMs to start. The final decision on allowing the GLCMs in was deferred, however. That decision finally came on March 21, 1985 when, following an intense, all-night debate, the Belgian Parliament voted 116-93 to give the deployment a green light. However, only one third (16) of the missiles were deployed; the other two-thirds were deferred until 1987. Before then, Reagan and Gorbachev were able to reach agreement on the “zero option” INF Treaty. The 16 GLCMs based at Florennes Air Base, in Wallonia, were eliminated together with the 32 that were never deployed.

In the early 1990s, pursuant to the PNI ordered by President George H.W. Bush, the United States proceeded to withdraw all non-strategic nuclear weapons in Europe, except for the B61 nuclear bombs. Belgium maintained its nuclear-delivery capable F-16 squadrons as part of the Alliance's DCA posture.

As noted, throughout the Cold War, Belgium was in the forefront of those allies demanding as forward-leaning an Alliance posture on arms control and disarmament as possible. At the 1957 NATO Summit in Paris, Prime Minister Acker had insisted that “NATO's role could no longer be exclusively military in character” but rather “consist mainly in elaborating common policies in dealing with the countries of the eastern bloc and in working towards an international control of armaments.”⁹ Belgium was an original signatory to the NPT in 1967 and has been an active participant in NPT Review Conferences ever since. The landmark, and still influential, 1967 NATO report requiring a balance within NATO strategy between defense and détente was named after a Belgian Foreign Minister, Pierre Harmel. During Prime Minister Guy Verhofstadt's tenure in the early 2000s, Belgium decided to close all its nuclear power plants, even though they provide half of the nation's energy needs. And in the negotiations on the 2012 DDPR, Belgium was the forefront of those allies calling for strong language in support of strengthened disarmament efforts.

6.0.2. Situation Post-Crimea

On October 25, 2018, Belgium announced the selection of the F-35 as its next-generation fighter, beating out its competitors: the Swedish Grippen, the

⁸ *Ibid.*, 31.

⁹ *NATO 1957 Summit*, 16.

European Typhoon, the French Rafale, and the U.S. F/A-18E/F Super Hornet.¹⁰ Belgium is buying 34 aircraft at a cost of \$4 billion, with initial deliveries beginning sometime in the 2023-2025 timeframe.¹¹ Prime Minister Charles Michel (now the President of the European Council of the EU) defended his Government's decision to "Buy American," saying, "We are choosing cooperation with NATO and for European defense."¹² Michel's Defense Minister, Stefan Vandeput, argued that the F-35 had won on the basis of price, as well as in six other competition categories, and Deputy Prime Minister Kris Peeters emphasized that 30% of the content of each F-35 would be manufactured in Europe.¹³ Belgium and the Netherlands enjoy an especially close relationship on defense issues, including sharing common naval capabilities, hence the latter's decision to acquire the F-35 loomed large in Belgian calculations.¹⁴

Officially, the F-35 selection left ambiguous the question of the aircraft taking over the DCA role after Belgium's F-16 fleet is replaced. Among the NATO allies participating in the Multi-National F-16 Program, Belgium had been the last to join, so it is lagging behind the others in terms of its replacement timeline.¹⁵ In the MoD's Request for Proposals the nuclear-delivery criterion was not listed as a requirement, but it could be included by bidding firms as an option for future capability evolution.¹⁶ However, the fact that the F-35 was effectively the only fighter aircraft option under consideration that was guaranteed to be able within the projected F-16 replacement timeframe to be capable of being modified to deliver the B61 bomb had a significant influence on that acquisition decision.¹⁷ As one senior official of a U.S. NATO ally explained, no formal requirement for nuclear delivery was stated, but "in choosing the F-35, you buy into that role."¹⁸ Another senior allied official interviewed agreed, saying: "Buying French would have meant an end to the nuclear capability, and that played a role in the decision."¹⁹ Another factor, this official maintained, was Belgium's wish to help Germany, which he characterized as "quite a pacifist country," stay in DCA, as Belgium had done in the INF era with regard to hosting GLCMs.

¹⁰ "Belgium Picks Lockheed's F-35 Over Eurofighter on Price." Reuters, October 25, 2018, 1.

¹¹ CRS F-35 Report, 7.

¹² "Belgium Picks Lockheed's F-35," 1.

¹³ *Ibid.*, 4

¹⁴ Interview, A2.

¹⁵ Interview, A2.

¹⁶ Interview, A2.

¹⁷ Personal experience of the author. As SECDEFREPEUR, I engaged at their initiative in private discussions with senior Belgian military leaders. I informed them that it was highly unlikely that the French Rafale fighter could or would be certified by U.S. authorities for B61 delivery and that while it was conceivable that the F-18 Super Hornet could eventually be so certified, it would be a long and expensive process.

¹⁸ Interviews, A1.

¹⁹ Interview, A1.

The Belgian government's hope of keeping the question of the F-35 nuclear role off the radar screen was shattered, though, when in July 2019 a draft report by the NATO Parliamentary Assembly (NPA) was posted on its website stating that B61 bombs were stored at Kleine Brogel Air Base in Belgium.²⁰ Although the posting was quickly taken down, the damage was done, and Belgian Foreign Minister Didier Reynders promised the Parliament that it would get to vote on the B61 delivery modification before that upgrade is carried out.²¹ A month earlier, inconclusive elections had produced no clear winner, and a technocrat caretaker government led by Sophie Wilmes had taken office. In response to media and opposition party inquiries, the caretaker government stated that Belgium "had no intention to change its participation in NATO's nuclear-sharing arrangements." This left unclear whether it was referring to the then-current F-16 DCA role or the future F-35 role.

Nonetheless, this statement was seized upon by anti-nuclear parties within the opposition, and the nuclear issue was again forcefully joined. Opposition parties, including Socialists, Greens, Centrists, and the French-speaking Liberals, pressed forward in the Belgian Parliament's Foreign Affairs Committee with a resolution that the Committee adopted calling on the government to withdraw the weapons from Belgium and for Belgium to accede to the NBT.

In response to the Foreign Relations Committee's action, the Belgian Parliament's Committee on National Defense held public hearings in October 2019. Representing the Ministry of Defense's official position, LtCol Karel Boese testified on October 2, 2019. The MoD official explained that in the context of NATO's agreed nuclear policies, and consistent with its principles of "partage equitable des risques et de la charge" (fair risk and burden-sharing), "La Belgique a décidé d'apporter sa contribution en mettant à disposition des avions de combat F-16, capable de transporter des armes nucléaires préstratégiques" (Belgium decided to make a contribution in putting a the disposition of NATO combat F-16 aircraft capable of carrying non-strategic nuclear bombs).²² Boese further maintained that were Belgium to relinquish the DCA role and were that role to be taken up instead by newer NATO allies "situé plus près de la frontière

²⁰ The final version of the NPA report, as published, merely stated that "according to non-governmental open sources, the United States forward-deploys nuclear weapons, specifically B61 gravity bombs, to Europe." [A *New Era for Nuclear Deterrence? Modernization, Arms Control, and Allied Nuclear Forces* (Brussels: NATO Parliamentary Assembly, October 12, 2019), 13].

²¹ Interview, A1.

²² Chambre des Représentants de Belgique, *Le Désarmement Nucléaire – Audition: Rapport fait au nom de la Commission de la Défense Nationale par MM. Wouter de Vriendt et Steven Creyelman* (Doc. 55 0833/001n), December 3, 2019, 4. No official English text available; translation from the French is by the author of this dissertation for all citations from the committee and plenary debates.

russe” (located closer to the border with Russia), it could create “une certaine instabilité” (a certain instability), since Russia would view that as “une grave provocation” (a grave provocation).²³ Furthermore, he emphasized, by demonstrating via its DCA participation that it was a loyal partner, Belgium “a contribué de cette façon à garantir la stabilité stratégique, ce qui l’a aidé à acquérir une position privilégiée pour exprimer ses préoccupations et ses convictions politiques en la matière” (had contributed in this manner to guarantee strategic stability, which helped Belgium acquire a privileged position [within NATO] to express its views and political convictions on these matters).²⁴

The representation of the MoD position to the Parliament was reinforced on October 16 by testimony of Belgium’s Permanent Representative at NATO, Ambassador Pascal Heyman, who had been Defense Minister when the F-35 selection was made in 2018. Ambassador Heyman emphasized two points: first, that Belgium’s participation in DCA gave it “une position privilégiée” (a privileged position) in discussions within the NATO Nuclear Planning Group related to nuclear policy and strategic choices, and second, that within NATO, Belgium “est favorable à une approche double, combinant dissuasion et dialogue (doctrine Harmel)” (is supportive of a double track combining deterrence and dialogue consistent with the Harmel Report).²⁵ Heyman also argued that by participating in DCA, Belgium “compense effectivement” (effectively compensates) for “ses déficiences dans certains autres domaines du partage des charges et des risques” (its deficiencies in other burden-sharing areas).²⁶

During the hearings, opposition party and NGO representatives made passionate arguments against Belgium maintaining its nuclear role. Member of Parliament Wouter De Vriendt (Green Party) noted the NPA report and demanded to know why the United States should be the only nation in the world “qui installe une partie de son arsenal nucléaire sur le territoire de pays tiers” (that deploys a part on its nuclear arsenal on foreign soil).²⁷ De Vriendt cited President Trump’s “imprévisibilité” (unpredictability) and asked why if such NATO allies as Canada, Spain and Greece were able to insist on the removal of U.S. nuclear weapons from their soil, why could not Belgium.²⁸ In a similar vein, Member of Parliament Samuel Cogolati (Green Party) pointed to another NATO ally, Norway,

²³ *Ibid.*, 7.

²⁴ *Ibid.*, 7.

²⁵ *Ibid.*, 28-29.

²⁶ *Ibid.*, 47. The Ambassador’s linking of Belgium’s willingness to participate in DCA with American pressure on the defense spending issue was not academic: On August 5, 2020 President Trump said in an interview that he had “told” Belgium that due to its “delinquent” rate of defense spending, “they will be paying.” [“Trump Says Italy and Belgium Are Next ‘Delinquents’ to Pony Up Defense Spending for NATO,” FOX News.com, August 5, 2020].

²⁷ Report of the Belgian Defense Committee, 16.

²⁸ *Ibid.*, 16.

that bans nuclear weapons on its soil and pointed out the irony that its former Prime Minister, Jens Stoltenberg, was the current NATO Secretary General.²⁹ Beatrice Fihn, representing ICAN, argued that nuclear weapons were “inhumane, catastrophique et inacceptable” (inhumane, catastrophic and unacceptable).³⁰ In her view, the effects of the explosion of even one such device would be so terrifying that action needed to be taken urgently to abolish them. She urged Parliament to force the Belgian Government to sign and ratify the NBT, a step, she insisted, that was supported by 57% of Belgians, including the mayors of 89 cities.³¹

On January 16, 2020, the full Belgian Parliament took up the Resolution from the Committee on Foreign Affairs.³² Speaking first in support of the Resolution, Samuel Cogolati, Rapporteur of the Foreign Affairs Committee, noted that following the October hearings in the Defense Committee, the Foreign Affairs Committee had decided to vote again on the Resolution on December 17, as amended to make clear that it was non-binding and to water down the references to bombs on Belgian soil and the NBT. This version passed on a vote of 8-7.³³

During the plenary debate Cogolati again made reference to the bombs at Kleine-Brogel, Donald Trump, the other NATO allies who had opted-out of nuclear roles, and what he termed the “menace réelle” (real threat) that there could be a nuclear detonation. He also cited an opinion by the International Court of Justice that any use of nuclear weapons would violate international humanitarian law. Opposing Cogolati, Michel de Maegd, a Liberal Democrat, criticized the NBT as an unworkable “short cut” and called instead for Belgium to remain true to the step-by-step vision of progressive reductions called for under Article 6 of the NPT.³⁴ De Maegd argued that the fatal weakness of the NBT was that the treaty “s’adresse exclusivement aux démocraties occidentales” and not “en direction de la Russie, de la Chine, de la Corée du Nord ou encore en direction de l’Iran” (addressed itself only to the western democracies and not to Russia, China, North Korea or even Iran). He was supported by Member of Parliament Georges Dallemagne, speaking for the Christian Democrat Party, who argued that in the face of Russia’s violation of the INF Treaty, a unilateral action

²⁹ *Ibid.*, 20.

³⁰ *Ibid.*, 33.

³¹ *Ibid.*

³² Chambre des Représentants de Belgique, Compte Rendu Intégral: Séance Plénière (CRIV 55 PLEN 020), Afternoon, January 16, 2020. (Version Provisoire).

³³ *Ibid.*, 22.

³⁴ *Ibid.*, 35.

by Belgium to join the NBT would be “malvenue et contre-productive” (ill-advised and counterproductive).³⁵

After a protracted and often emotional debate, the Parliament voted to reject amendments that sought to restore specific references to Kleine-Broegel and the NPT and then voted 74-66 to reject the Resolution.³⁶ In the end, the Liberal Democrats, the Flanders nationalists, the Christian Democrats and the far-right Peoples Party joined together to defeat the Resolution supported by the Socialists, Greens, Communists, French Liberal Democrats and the Brussels-based Defi Party.

For its part, the U.S. Embassy kept a low profile throughout the debate. Ambassador Gidwitz “quietly engaged,” but only to remind supportive senior officials and party leaders of the posture’s importance and to urge them not to miss the voting, and not to try to pressure opponent MPs to flip sides.³⁷ In the view of the U.S. Embassy, this outreach, together with “the unexpected support from the far-right Vlaams Belang, likely swung the vote in our favor.”³⁸ After the vote, Vlaams Belang leader Tom Van Grieken said: “We are opposed to the resolution of the left parties, because we are not naïve pacifists. But at the same time, as Flemish nationalists, we have little sense in saving Belgium’s face.”³⁹

In the end, the issue came down to the wire, and the final vote of 74-66 underscored the deep divisions in Belgium on this issue. DCA supporters in the Parliament, supported by the Government, carried the day, but only narrowly. In effect, the DCA supporters confronted the anti-nuclear opposition with two “pro-détente” arguments taken from Harmel Report “playbook;” first, that the NPT was a more realistic route to nuclear disarmament than the NBT, and second, that if Belgium were to drop out of DCA, Poland would want to take its place, and given what would be the predictable response from Moscow to this “provocation.” the post-Crimean tensions between NATO and Russia would only worsen.

³⁵ *Ibid.*, 47.

³⁶ *Ibid.*, 53.

³⁷ American Embassy Brussels, “Brussels Quotidien/Gazet – January 15, 2020” (20 BRUSSELS 120, January 22, 2020) and Interview, US2.

³⁸ American Embassy Brussels, “Brussels Quotidien/Gazet – January 17, 2020 (20 BRUSSELS 122, January 22, 2020).

³⁹ “Belgian Parliament Nearly Expels US Nuclear Weapons in Close-Run Vote,” *The Independent* (UK), January 17, 2020.

6.0.3. Assessment of Factors Con and Pro

6.0.3.1. Extra Cost

Little Effect: 0.25. The DCA infrastructure is already in place with Belgium's F-16 program, and the "cost delta" for Belgium to make its planned buy of F-35s B61 delivery-capable would be only about \$250 million, spread over 8 years, as estimated by this dissertation. To be sure, Belgium ranks low among allies on total defense spending per year (\$5.173 billion) and percentage of defense spending as part of GDP (1.1%). But even measured against these low levels, the extra cost for Belgium to maintain its current DCA status is easily manageable.

6.0.3.2. Domestic Opposition to Nuclear Weapons

Significant Effect: 0.75. As underscored by the narrowness of the January 2020 Parliamentary vote, DCA does not enjoy broad-based support across the political spectrum in Belgium. As one senior allied official interviewed explained the problem, most experienced diplomats know you have to be prepared for war, and if there is a "present and imminent danger you can probably convince the public," but absent that it is "difficult."⁴⁰

In September 2020, after 500 days of an interim government following the inconclusive elections of May 2019, a new center-left coalition took office, with Flemish Liberal Democrat Alexander de Croo as Prime Minister. Although de Croo voted against the anti-nuclear resolution in January, the seven party coalition (Francophone and Flemish liberals, Socialists and Greens plus the Flemish Christian Democrats) he leads had to engage in painstaking negotiations over many weeks with several parties that had been strongly supportive of the NBT. The resulting policy statement on the NBT has been hailed as ICAN as a first step towards what it hopes will eventually be a Belgian decision to end its nuclear-sharing role:

Belgium will play a proactive role in the 2021 NPT Review Conference and, together with European NATO allies, will explore how to strengthen the multi-lateral non-proliferation framework and how the UN Treaty on the Prohibition of Nuclear Weapons can give new impetus to multilateral nuclear disarmament [unofficial translation].⁴¹

A careful reading of this statement indicates some important caveats, though, effectively providing ammunition to both sides. On the one hand, it makes a favorable reference to the NBT, which has been condemned in strong terms in official NATO communiques. On the other hand, the references to "consultations with European NATO allies" and the NBT giving "impetus" to the

⁴⁰ Interview, A1.

⁴¹ "Belgian Government Shifts Stance on TPNW," ICAN website, accessed December 7, 2020.

NPT imply that Belgium will not act unilaterally or abandon its long-standing view that the NPT is the principal path to arms control and disarmament.

Meanwhile, there is no question that anti-nuclear sentiment among the Belgian populace has remained strong. A December 2020 poll by YouGov indicated that 77% of Belgians support joining the NBT and only 26% believe the F-35s should be modified to carry nuclear weapons.⁴² The ICAN polling claims that 53% of Belgians are opposed to equipping the F-35 for B-61 delivery. Whether these widely-held views are a *salient* factor in governmental decisions is, however, less clear. A 2020 Pew poll indicated that while 59% of Belgians viewed nuclear weapons proliferation as a threat, higher percentages worried more about climate change, pandemics, terrorism and cyber attacks.⁴³ One senior NATO official interviewed believes that the NGO community in Belgium is much less influential than in the Netherlands, and is generally “smothered” by domestic division within the country over linguistic issues (French versus Flemish) and constitutional issues (regionalism versus federalism).⁴⁴

Belgian think-tank policy experts tend to discount the strength of public anti-nuclear attitudes on Belgian Governments decision-making, regarding it as one, but only one, factor that bears on final decisions.⁴⁵ This view is consistent with the 2018 survey by the ECFR, which categorized Belgium’s approach to nuclear weapons as “pragmatist.”⁴⁶ That said, the new Belgian coalition’s multi-party composition makes it vulnerable to a strongly-held anti-DCA stance by one or more of these parties. Only time will tell what position the coalition would take with regards to the F-35 nuclear “wiring” modifications, if this coalition should still be in power when that decision comes due after 2024.

6.0.3.3. Balance of Threat

Moderate Effect: 0.50. During the October hearings on the NBT Resolution, the Government testified that given the “profondement dégradée” (significantly deteriorated) relations post-Crimea, Belgium recognizes Russia as “la principale menace étatique potentielle” (the principal potential state-based threat).⁴⁷ That said, Belgium regards the risk of direct military conflict with Russia as “peu probable” (unlikely). This perspective is in line with the December 2018 ECFR report, which based on wide-ranging interviews with Belgian officials and foreign policy experts reached the following conclusion:

⁴² “77% of Belgians Support Joining the TPNW – Poll,” ICAN website, accessed December 7, 2020.

⁴³ “Spring 2020 Global Attitudes Survey,” 4.

⁴⁴ Interview, N1.

⁴⁵ Interview, A2.

⁴⁶ ECFR “Eyes Tight Shut” Report.

⁴⁷ Report of the Belgian Defense Committee, 3.

Belgium believes that nuclear weapons pose a significant – but not priority – threat. It perceives Russia as a threat irrespective of the latter’s nuclear weapons. Belgium considers Russia to be a frustrated power that seeks to regain, to some extent, part of its lost influence. Nevertheless, Belgian officials do not consider Moscow a major threat: the government sees real possibilities of cooperation with Russia on a range of issues, including terrorism.⁴⁸

A December 2020 Policy Paper from the Egmont Institute edited by Alexander Mattelaer and Laura Vansina shares this assessment. Describing Belgium’s relationship with Russia as “mired in a paradox,” the report notes that while Belgium as a Founding Member of NATO and the EU has been a full participant in both organization’s “hardening stance” toward Russia post-Crimea, Belgium on a bilateral level “seeks to uphold what is left of commercial cooperation.”⁴⁹ Belgium’s relative distance from Russia helps it sustain this more transactional stance.

6.0.3.4. Transatlantic Alignment

Significant Effect: 0.75. Belgians have historically felt genuine affinity for the United States, recalling not only America’s entry into both World Wars, but also the massive U.S. economic recovery and humanitarian aid programs that followed both conflicts.⁵⁰ As the seat of NATO since 1967 and a Founding Member in 1949, Belgium is also naturally disposed to take pride in the Alliance’s achievements and future contributions to European security.

That said, Belgium is also one of only 6 Founding Members of the European Coal and Steel Community, which evolved in time into today’s EU. Throughout the history of the EU and its predecessor organizations, Belgium has been in the vanguard of states pressing for a broader and deeper integration. It has also been a champion of multilateralism. As a small nation, Belgium traditionally has sought for itself a “niche” in the diplomacy exercised, *inter alia*, at the UN, EU and NATO and other international fora, and in 2002 it formally identified “Global Governance” as the priority objective of its diplomacy.⁵¹

In 2002, in the immediate aftermath of the intense internal NATO debate on the Bush Administration’s seemingly implacable resolve to invade Iraq after 9/11, Belgium joined with fellow EU Member States France, Germany at the so-called

⁴⁸ ECFR “Eyes Tight Shut” Report, 70.

⁴⁹ Alexander Mattelaer and Laura Vansina (eds.), “Dealing with Russia: Towards a Coherent Belgian Policy,” Egmont Paper 109, December 2020, 6.

⁵⁰ The Marshall Plan is well-known, but lesser well-known is the humanitarian relief program for Belgium run by Herbert Hoover after WWI.

⁵¹ Rik Coolsaet and Sven Biscop, “Belgian Foreign Policy: In Search of a New Course,” *Egmont Commentary*, July 10, 2014, 2.

“Chocolate Summit” in Brussels. At this “rump” meeting of dissenting allies, the three states proposed that the EU create a permanent headquarters near NATO in Tervuren for commanding CSDP missions. A crisis of some proportions ensued within NATO – one which U.S. Ambassador Burns termed “the most serious threat to the future of NATO.”⁵² The tri-partite proposal was eventually dropped in the face of the vigorous American reaction. However, even though Belgium eventually relented, its initial stand underscored its willingness to oppose U.S. interests and demands in high-profile cases in which “Europe” was proposing an alternative approach. After Saddam Hussein had fallen, at a dinner in Brussels hosted by Belgium for Defense Ministers in town for a meeting at NATO, the U.S. Secretary of Defense, Donald Rumsfeld, refused to shake the hand of his Belgian counterpart, André Flahaut, who had said that Rumsfeld should be charged with war crimes for his role in the invasion.⁵³

6.0.3.5. Ranking/Status within NATO

Full Effect: 1.0. As noted, in his October 2019 testimony to the Defense Committee, Belgium’s NATO Ambassador contended that being a DCA participant is of major importance to Belgium because it compensates for the country’s low level of defense spending overall (1.1%) and gives it a voice in nuclear policy and posture discussions within the Alliance. This view is shared by Belgian think tank policy experts interviewed for this dissertation.⁵⁴ As Alexander Mattelaer, Senior Research Fellow at the Egmont Institute, has written: “NATO’s nuclear sharing arrangements have provided participating allies with a meaningful voice on deterrence matters they would not have had otherwise.”⁵⁵ In his October 2019 testimony to the parliamentary Defense Committee, Mattelaer said that “la fonction de DCA est actuellement la plus importante contribution de la Belgique à la défense collective de l’OTAN (et donc de l’Europe)” (DCA is the most important contribution Belgium makes to collective defense in NATO and hence to Europe), and that by so doing, Belgium had “se positionner a ce sujet au sein de l’OTAN” (positioned itself at the heart of

⁵² Paul D. Williams, *British Foreign Policy Under Labour – 1997-2005* (London: Palgrave/Macmillan, 2005), 72.

⁵³ Personal experience of the author of this dissertation.

⁵⁴ Interviews, A1.

⁵⁵ “(Nuclear) Sharing is Caring: European Views on NATO Nuclear Deterrence and the German Nuclear Sharing Debate,” German Council on Foreign Relations (DGAP) Report No. 10, June 2020, 7. Mattelaer also cites the importance for Belgian Governments to help ensure that deterrence has made unrestrained conflict with Russia “nearly unthinkable” and that it has “obviated the need for more allies to acquire nuclear arsenals of their own.” The latter is of particular importance to Belgium with regards to Germany, given Belgium’s experience in the two World Wars of the 20th century.

NATO).⁵⁶ A senior allied official interviewed agreed, arguing that for Belgium there is “no differentiation” vis-à-vis other allies “except in the NPG.”⁵⁷

Most U.S. officials interviewed for this dissertation believe Belgium will stay in DCA. A senior allied official interviewed agreed, unless, that is, Germany or perhaps the Netherlands dropped out.⁵⁸ This official had also warned that “there would be hell to pay” [on keeping Belgium in DCA] if President Trump had been re-elected and New START had not been extended. A former NATO military leader interviewed was rather cynical, though, about cause and effect, saying Belgium will likely stay in simply due to “inertia.”⁵⁹ Will there have to be a major debate and discussion when the nuclear upgrade software is ready to be installed on Belgian F-35s in a few years’ time? One expert interviewed predicts the Belgian military will say “no – this is just a capability modification,” but that “at the political level, some will challenge that.”⁶⁰

“Con” Opting-In		“Pro” Opting-In	
	Factor Weight		Factor Weight
Extra Cost	.25	Balance of Threat	.50
Domestic Opposition to Nuclear Weapons	.75	Transatl. Alignment	.75
		Ranking/Status within NATO	1.0
Total	1.0	Total	2.25

Table 15: Belgium: Summary of Independent Variable Interactions

⁵⁶ *Report of the Belgian Defense Committee*, 11-12.

⁵⁷ Interview, A1.

⁵⁸ Interview, A1.

⁵⁹ Interview, N2.

⁶⁰ Interview, A2.

6.1. CANADA

6.1.1. Nuclear-Sharing Antecedents

As a close ally of the United States in World War II, a junior partner in the Manhattan Project who provided scientists and crucial uranium supplies to the program, and a founding member of NATO, Canada throughout the first decade of the Cold War was deeply engaged in the Alliance's nuclear-deterrent posture. Although Canada chose in 1945 not to become a nuclear power itself, it supported U.S. strategic nuclear deterrence by allowing U.S. nuclear bombs to be stored on its soil at Goose Bay Air Base in Labrador, allowed overflight of U.S. nuclear-armed bombers and was a full partner in continental air defense via the North American Air Defense Command (NORAD). Within NORAD, Canada contributed radars, nuclear-weapons capable interceptors and military leadership in the form of holding the position of Deputy Commander. In addition, the Canadian Chief of Defense Staff, General Foulkes, served as Chairman of the NATO Military Committee from 1952 to 1953. In 1954, Canada supported MC 48, which, as noted, confirmed that NATO's forces were to be organized in Europe with the capability to use nuclear weapons.

At the 1957 Paris Summit, though, Canada responded cautiously to President Eisenhower's "atomic stockpile" and IRBM offers. While Prime Minister Diefenbaker noted that the "logic" of both offers was consistent with MC-48, he argued that the two offers required "careful study" due to their "serious policy and financial implications." Nonetheless, the Prime Minister joined consensus in approving the plans in principle. Diefenbaker was initially a "firm defender" of Canada's direct participation, directing the procurement of nuclear-armed F-104 Starfighters and BOMARC surface-to-air missiles for Canada's military.⁶¹ By 1959, though, Diefenbaker's concerns about the command and control arrangements led him to openly question the planned deployments.⁶²

By 1963 – one year after the Cuban Missile Crisis had brought the Alliance to the brink of nuclear war - Canadian policy on the nuclear-sharing issue was essentially incoherent. Diefenbaker argued that the US-UK agreements reached by President Kennedy and PM McMillan on providing Polaris to the Alliance obviated the 1957 Eisenhower arrangements, and he campaigned for re-election in April 1963 on a platform opposed to nuclear weapons.⁶³ This in turn became an issue in the campaign that contributed to Lester Pearson's victory.

⁶¹ Duane Bratt, "Canada's Nuclear Schizophrenia," *Bulletin of Atomic Scientists*, Vol. 58., No. 2 (March-April 2002), 8.

⁶² Andrew Richter, *Avoiding Armageddon: Canadian Military Strategy and Nuclear Weapons, 1950-1963*. Vancouver: UBC Press, 2002, 9.

⁶³ Bratt, 8.

In 1964, the new Pearson government issued a Defense White Paper in which it stated unequivocally and unapologetically Canada's commitment to full nuclear burden-sharing:

The question of nuclear weapons for the Canadian armed forces is subordinate to that of Canada's political responsibility as member of a nuclear armed alliance. NATO is a nuclear-armed defensive alliance, which dare not be otherwise as long as it is confronted by a nuclear-armed potential opponent. A share in the responsibility for [nuclear-based] policies is a necessary concomitant of Canada's membership in NATO. One cannot be a member of a military alliance and at the same time avoid some share in responsibility for its strategic policies.⁶⁴

Consistent with this policy, Canada accepted four nuclear roles, with the United States providing the accompanying nuclear devices: the Honest John short-range ballistic missile, the BOMARC surface-to-air missile, the air-to-air Genie interceptor missile carried by the RCAF Voodoo fighters, and nuclear gravity bombs to be delivered by CF-104 Starfighter strike aircraft. John Clearwater estimates the total Canadian inventory of such weapons at between 250 and 450.⁶⁵

In support of its forward-deployed Army brigades, Canada deployed its 1st Air Division, comprised of eight CF-104 squadrons, at Zweibrücken Air Base in West Germany. The nuclear bombs for these units provided by the United States in June 1964 came in four types, with nuclear yields ranging from 13 kilotons (the yield of the explosion at Hiroshima) to 1 megaton.⁶⁶ Two nuclear-armed RCAF Starfighters stood QRA on 15-minutes' notice at all times.⁶⁷ NATO military commanders especially valued the Canadian CF-104 contribution, since neither Denmark or Norway chose to participate in this nuclear mission.⁶⁸ In time, Canada was joined in the QRA responsibility by Belgium, Netherlands, West Germany and Italy. Given Canada's willingness to participate in these nuclear-sharing arrangements, it was designated as an original member of the initially 7-nation NPG in 1967.

⁶⁴ *Canada Defense White Paper 1964*, 193.

⁶⁵ John Clearwater, *Canadian Nuclear Weapons: The Untold Story of Canada's Cold War Arsenal* (Toronto: Dundurn: 1998), 23.

⁶⁶ Sean M. Maloney. *Learning to Love the Bomb: Canada's Nuclear Weapons During the Cold War (1951-1972)*. Washington, DC: Potomac Books, 2007.

⁶⁷ "History of the Custody and Deployment of Nuclear Weapons: July 1945 through 1977," Office of the Assistant to the Secretary of Defense for Atomic Energy, February 1978. Full copy available in the Office of the Secretary of Defense's FOIA Reading Room, Room 2C757, The Pentagon.

⁶⁸ *Ibid.*

By the end of the 1960s, though, attitudes towards participating in NATO's nuclear posture, as well as its nuclear partnership with the United States in North America, had changed in Canada. With the election of Pierre Trudeau as PM in 1968 and the advent of the Nixon Administration in 1969 in the United States, Canadian/U.S. relations turned confrontational. Canadians reacted adversely to the war in Vietnam, trade disputes initiated by Washington, and a general sense of U.S. "cultural imperialism." Trudeau was "passionately opposed" to nuclear weapons, and public opinion had swung strongly in this direction.⁶⁹ Upon taking office, Trudeau in 1969 ordered the termination of nuclear-delivery roles for RCAF fighter squadrons based in Europe.

In 1971, his Government issued a White Paper that presented a sharp contrast on nuclear matters to its 1964 predecessor under Pearson. On nuclear policy issues, the White Paper listed the priorities for Canada's armed forces in the following rank order: "a) the surveillance of our own territory and coastlines – i.e., the protection of our sovereignty; b) the defense of North America in cooperation with United States forces; c) the fulfillment of such NATO commitments as may be agreed upon; and d) the performance of such international peacekeeping roles as we may, from time to time, assume."⁷⁰ Consistent with this downgrading of NATO's priority, Canada withdrew half its land forces (5000 soldiers) from West Germany and converted its CF-104s based there to conventional-only roles. The nuclear-armed Honest Johns and BOMARCs were retired by 1972. The Voodoo nuclear air intercept mission continued at Canadian bases in the U.S. for another decade but ended in 1984.

Under Trudeau, Canada increasingly became an advocate of more aggressive nuclear disarmament efforts globally. In 1978, he addressed the UN General Assembly Special Session on Disarmament (SSOD) and delivered what was immediately termed the "suffocation of the nuclear arms race" speech. Trudeau acknowledged that Canada belonged to an alliance that included three of the world's five nuclear powers. But that did not mean, he stressed, that it should not put forward bold ideas for "arresting the dynamic of the nuclear arms race ... by a strategy of suffocation, by depriving the arms race of then oxygen on which it feeds."⁷¹ The key passage warrants citation in full:

We are nonetheless a country that has renounced the production of nuclear weapons or the acquisition of such weapons under our control.

⁶⁹ Paul Meyer, "Pierre Trudeau and the 'Suffocation' of the Nuclear Arms Race, *International Journal*, Vol. 71, No. 3 (September 2016), 402.

⁷⁰ Canada. Department of National Defense. 1971. *Defense in the 70s*. White Paper on Defense. Ottawa: Information Canada.

⁷¹ Prime Minister Pierre Trudeau, UN General Assembly Tenth Special Session, "Provisional Verbatim Record of the Six Meeting," A/S-10/PV.6, 26 May 1978, 5.

We have withdrawn from any nuclear role by Canada's armed forces in Europe and are now in the process of replacing with conventional armed aircraft the nuclear-capable planes still assigned to our forces in North America. We are thus not only the first country in the world with the capability to produce nuclear weapons that chose not to do so, we are also the first nuclear armed country to have chosen to divest itself of nuclear weapons.⁷²

The specific "suffocation" steps Trudeau recommended included the Comprehensive Test Ban treaty (CTB), a Fissile Material Cut-off Treaty (FMCT), a ban on ICBM flight testing, and caps and reductions on the level of defense spending on nuclear weapons and delivery systems.

The allied reaction to Canada's decision under Pierre Trudeau to relinquish their nuclear roles has been well-described by Joel Sokolsky: "Carried out in the hey-day of *détente*, these measures, while never entirely accepted by the Alliance, did not result in sufficient pressure from either Brussels or Washington to compel Trudeau to stay his hand."⁷³ Consistent with a principal hypothesis of this dissertation, this summary observation underscores the point that not only do "Brussels and Washington" not pressure allies to take on nuclear roles, with the exception of Germany they do not contest decisions to abandon nuclear roles. That does not mean, however, that there were no consequences. Sean Maloney contends:

By 1972, Canada's civil national security policy-makers were unwilling to adapt to the rapidly changing strategic and technical aspects of U.S. policy. Canada's uniformed national security policy-makers were able to do so, but the gulf between the two groups grew wider and deeper over time, which resulted in the dismantling of Canada's substantial nuclear capabilities and a reduction in the level of influence in NATO.⁷⁴

A decade later, Canada made clear its strong opposition Ronald Reagan's "Star Wars" ambitions. After President Clinton approved a far more limited National Missile Defense (NMD) deployment in 1998, Canada decided to withdraw from that part of NORAD that had NMD command and control responsibilities. At the NATO Summit in Wales in 2014, Prime Minister Steven Harper briefly delayed final approval of the leader's Communique while a change was quickly inserted to give him more latitude in arguing for Canada's joining this part of NORAD, but

⁷²*Ibid.*

⁷³ Joel J. Sokolsky, "NATO: Taking Canada More Seriously," *RUSI Journal*, 127:4, 1982, 42.

⁷⁴ Maloney.

the Harper Government never followed up with a policy change decision to this effect before leaving office a year later.⁷⁵

6.1.2. Situation Post-Crimea

The current Canadian Prime Minister, Justin Trudeau, was elected in November 2015 – one and a half years after Crimea. Canada had joined the NATO consensus at Wales on needed enhancements to the Alliance’s deterrent posture in Europe, but its land forces having been fully withdrawn from Germany in 1993, it did not offer to assume a responsibility for providing a brigade to the VJTF rotational reinforcement force agreed there. Canada did, however, increase its contributions to Baltic and Black Sea air policing missions. Canada generally took a hard line against Russia in policy debates post-Crimea, which reflected the political influence domestically of the large Ukrainian ethnic community living there (the largest Ukrainian diaspora in the world, second only to Russia).⁷⁶ In 2016, Canada surprised its allies by volunteering to take the Lead Nation role for the NATO eFP “Battlegroup” (battalion) in Latvia.

In June 2017 the Justin Trudeau Government issued a new Defense White Paper: “Strong, Secure, Engaged (SSE).” The White Paper put emphasis on Crimea, the “re-emergence of major power competition,” and the “importance of deterrence.” It committed the Trudeau Government to an increased level of ambition for the Canadian Armed Forces, including significant (by Canadian standards) increases in defense spending (though not enough to meet the Wales Pledge commitment) and larger Reserve and Regular force structures. The latter includes maintaining the capability to sustain as a lead nation a force of 500-1500 personnel, which matches the force requirement for its eFP commitment.

However, Canada’s 2017 White Paper remained consistent with past White Papers dating back to 1971 by rank-ordering Canada’s defense priorities as, first, defense of Canada (“strong at home”), second, North American continental defense through NORADS and its bilateral relationship with the United States (“secure in North America”), and third, in International security organizations such as NATO (“engaged in the world”) – hence the title: “SSE.”

Content to remain “strong at home” under the U.S. nuclear umbrella, the 2017 White Paper did not address nuclear issues, let alone consider equipping with a nuclear-delivery capability the CF-18s being deployed more regularly to Europe as part of the NATO air policing missions and to provide air support for its eFP battalion in Latvia. The idea of Canada participating in SNOWCAT with its

⁷⁵ Personal experience of the author of this dissertation while engaged in Communique drafting at the Summit. change.

⁷⁶ S.V. Poliakova and O. Wolowyna, “Ukrainian Diaspora in Canada: Methodology and Practice of Research,” *Demography and Social Economy*, 2019, No. 3, March 2019, 89.

rotational BAP fighter aircraft was floated within the Canadian delegation to NATO after Canada assumed the eFP mission, but even this modest “half step” towards a nuclear role was never put forward to Ottawa.⁷⁷ In fact, the word “nuclear” does not appear in SSE until page 50, and then only in the course of noting that “Deterrence has traditionally focused on conventional and nuclear capabilities.” In the preceding sentence the SSE states:

NATO Allies and other like-minded states have been re-examining how to deter a wide spectrum of challenges to the international order by maintaining advanced *conventional* military capabilities that could be used in the event of a conflict with a “near-peer.” (emphasis added)

While factually correct, this observation overlooks the fact that NATO Allies have also been re-examining how NATO’s *nuclear* posture might be enhanced to allow a more survivable and credible use in extremis in the event of a conflict with a “near-peer.” Nonetheless, the SSE goes on to assert that “Canada benefits from the deterrent effect provided by alliances (e.g., NATO and NORAD), and takes seriously its responsibility to contribute to efforts to deter aggression by potential adversaries in *all domains*” (emphasis added). Despite this rhetorical flourish, the reality is that with its aircraft no longer permanently forward-deployed in Europe, DCA considerations have very rarely been subject to close analysis by Canadian officials.⁷⁸ As one senior NATO official interviewed said, “Canada is pretty timid on nukes.”⁷⁹

In the very unlikely event that Canada were to decide to resume its former DCA role in NATO, it would have the option of modifying for nuclear-delivery its current fleet of CF-18s or incorporating that feature in its planned CF-18 replacement procurement. In 2016, the administration of PM Justin Trudeau repudiated the previously announced Canadian decision to purchase 80 (later 65) F-35s to meet its follow-on fighter requirements. Canada is an original major F-35 manufacturing partner on the F-35, but Lockheed Martin made clear that if Canada were to withdraw entirely from the program its workshare would be redistributed. In the face of this threatened loss of an estimated 150,000 Canadian jobs, the Trudeau Government decided to keep the F-35 in the fighter replacement competition, with the F/A-18 E/F Super Hornet and the Swedish Grippen. Of these three choices, only the F-35 would offer a sure path to DCA capability on an expedited timeline.

On July 31, 2020, the Canadian government confirmed that bids had been received from all three manufacturers. In its statement, the government

⁷⁷ Interview, N1.

⁷⁸ Interview, A1.

⁷⁹ Interview, N1.

indicated that one of the three could be eliminated in Spring 2021 after the initial evaluations are complete, and that a final selection is expected in 2022, with first aircraft deliveries in 2025.⁸⁰

6.1.3. Assessment of Factors Con and Pro:

6.1.3.1. Extra Cost

Full Effect: 1.0. Were Canada to decide to rejoin DCA, the costs would be significant. Having been out of the program for three decades, Canada would, in effect, be starting from scratch. First, there would be the cost of modifying its aircraft (presumably the winner of the replacement competition) to be able to perform this mission. For the F-35, Canada would face only an incremental expense, since there are other allies splitting the nuclear modification R&D program costs. The F/A-18 E/F modification would be more costly, since only Germany seems intent of using that aircraft for DCA roles. The Grippen could not be modified for nuclear roles, since its manufacturer is a non-NATO nation. Second, there is the question of what B61 storage site in Europe the Canadian fighters would be associated with (since there would be no point in having the B61s stored in Canada) and whether that host nation would ask Canada to assume some share of the overall hosting expense. Finally, Canada's relatively low aggregate level of defense spending each year (\$22.15 billion) and its low defense spending/GDP ratio (1.45%) would make it harder to earmark the extra cost of DCA participation to these requirements.

6.1.3.2. Domestic Opposition to Nuclear Weapons

Full Effect: 1.0. Political analysts generally agree that dating back to the Pierre Trudeau era, Canada's nuclear "allergy" reflects a "nationwide abhorrence of these weapons, the desire to prevent their proliferation, and to see them entirely eliminated."⁸¹ Canadians take pride in pointing out that 60% of them live in areas officially self-declared as "nuclear-free zones." Domestic opposition to nuclear delivery missions is a factor in government decision-making, and the clear preference is to put the emphasis on Canada's support for arms control disarmament and non-proliferation initiatives.⁸² This includes strong support for the nuclear powers to show more progress on their Article 6 obligations at NPT Review Conferences and active participation in such pro-arms reduction fora as the Vienna Group of 10, the Non-Proliferation and Disarmament Initiative, and the Stockholm Initiative. As one official interviewed summarized it: "Canada does not want to risk inflaming this aspect of public opinion and would prefer to

⁸⁰ "These Three Companies Submitted Bids for Canada's Fighter Competition," *Defense News*, July 31, 2020.

⁸¹ Bratt, 6.

⁸² Interview, N1.

tread familiar ground on ADN (arms control, disarmament and non-proliferation).”⁸³

The Canadian public’s anti-nuclear attitudes also reflect elements of broader cultural and economic animosities related to its big neighbor to the south. This was especially the case during the 4 years of the Trump Administration, when the U.S. President repeatedly insulted Prime Minister Trudeau publicly. Although Canada has maintained solidarity with its NATO allies in not signing the NBT, it is notable that among the 56 former presidents, prime ministers and foreign and defense ministers who signed the 2020 Open Letter endorsing the treaty, more were Canadian (7) than any other nationality (two former Prime Ministers (Chrétien and Turner) and five former ministers). Anti-nuclear sentiments have crossed party lines in Canada since the Pierre Trudeau era, regardless of which party has been in power.

6.1.3.3. Balance of Threat

Little Effect: 0.25. Canadian defense policy analysts agree that Canada faces no direct threat from Russia, though it is increasingly worried about Russian military activities in the Arctic. Given Canada’s geographic distance from “European” Russia, it tends to regard any threat from that source as indirect; that is, the risk that Canada could by virtue of its bilateral closeness to the United States and its membership in NATO would be drawn into any conflict between Russia and the United States or Russia and NATO.⁸⁴ To be sure, the Ukrainian diaspora in Canada has contributed to a hardening of Canada’s perspective on Russia’s intentions and capabilities, as reflected by the Canadian eFP battalion in Latvia. It has not, however, translated into a perceived threat to Canada itself.

6.1.3.4. Transatlantic Alignment

No Effect: 0.0. Canadian policy prioritizes its bilateral security relationship with the United States, as institutionalized in NORAD, over its participation in NATO. As emphasized in the 2017 SSE, “Canada’s defense partnership with the United States remains integral to continental security and the United states continues to be Canada’s most important military ally.”⁸⁵ The SSE also states that “Canada and the United States share an unparalleled defense relationship forged by shared geography, common values and interests, deep historical connections and our highly integrated economies. This relationship is critical to every aspect of Canada’s defense interests and economic prosperity.”⁸⁶

⁸³ *Ibid.*

⁸⁴ Sokolsky, 42.

⁸⁵ *2017 Canadian Defense White Paper*, 60.

⁸⁶ *Ibid.*, 90.

6.1.3.5. Ranking/Status within NATO

No Effect: 0.0. Unlike Belgium, Netherlands, Greece, or Turkey, Canada does not need DCA or the High Level Group to ensure it has a privileged dialogue with the United States on nuclear policy and posture matters, even though it recognizes that “other delivery or basing nations do have increased influence at NATO.”⁸⁷ Canada is guaranteed that high level of consultation already due to its bilateral relationship with the United States in NORAD and its full member status in the multi-lateral (and all-English speaking) intelligence venue called “Five Eyes.” The SSE stresses that NORAD is a key modality in its partnership with the United States in detecting, deterring and defending against threats to or attacks on North America and that Canada intends to “engage the United States to look broadly at emerging threats and perils to North America, as part of NORAD modernization.”⁸⁸ Five Eyes is also identified in the SSE as an “unwavering” commitment, with the White Paper emphasizing that this “network of partners, including Canada, the United States, United Kingdom, Australia and New Zealand, is central to protecting Canada’s interests and contributes directly to operational success.”⁸⁹ Thus while as a matter of Alliance policy Canada officially continues to view NATO’s DCA as an essential element of nuclear deterrence, it chooses not to give DCA any profile in terms of its own responsibilities, preferring to give its priority diplomatically to advancing ADN considerations.⁹⁰

“Con” Opting-In		“Pro” Opting-In	
	Factor Weight		Factor Weight
Extra Cost	1.0	Balance of Threat	.25
Domestic Opposition to Nuclear Weapons	1.0	Transatl. Alignment	0
		Ranking/Status within NATO	0
total	2.0	total	.25

Table 16: Canada: Summary of Independent Variable Interactions

⁸⁷ Interview, N1.

⁸⁸ *Ibid.*, 90.

⁸⁹ *Ibid.*, 91.

⁹⁰ Interview, A1.

6.2. DENMARK

6.2.1. Nuclear-Sharing Antecedents

Denmark emerged from World War II as a nation that had been quickly conquered and occupied by Germany, but from which volunteer military units left to fight in the Wehrmacht. Fortunately for Denmark, its Ambassador in Washington during the war, Henrik Kauffmann, had refused to accept any instructions from Copenhagen on the grounds that those orders were being issued under duress.⁹¹ Acting on his own authority, Kauffmann on April 9, 1941 (the first anniversary of the Nazis' overrunning of Denmark) signed a bilateral agreement assigning the United States the responsibility for the defense of Greenland and granting it the right to construct and operate airfields there until such time as both countries decided that they were no longer needed.⁹² These bases proved indispensable to the transatlantic flow of heavy bombers and fighter aircraft from North America to the UK that were essential to the allies' war efforts. In addition, the actions taken by the resistance forces at home to rescue Danish Jews via the small boat mass escapes to Sweden made a deep impression on Western perceptions. As a result, in 1949 Denmark was offered, and accepted, membership in NATO as a founding nation.

This decision came, however, only after Denmark had pursued two years of negotiations from 1947-1948 with its neighbors in Northern Europe – Sweden and Norway - on an alternative security arrangement, a Scandinavian Defense Union. In these negotiations, Denmark was essentially caught in the middle between Sweden, which insisted such a Nordic defense pact must be strictly neutral and hence could not collaborate in any way with NATO, and Norway, which from its tragic experience in World War II believed strongly that neutrality without the prospect of military support from NATO was not a viable solution. Two prominent Danish historians of this period, Nikolaj Petersen and Thorstein Børring Olesen, contend that Denmark could have accepted any arrangement

⁹¹ In fact, for the first few years of the war the Nazis allowed Denmark a relatively high degree of autonomy compared to other occupied nations in western Europe, but the United States was of course happy to give Ambassador Kauffmann's argument the benefit of the doubt. The government in Copenhagen responded by disavowing the treaty and "firing" Kauffmann, but to no avail.

⁹² For a full account of this episode in Danish-American relations, see: Bo Lidegaard, *In the Name of the King: Henrik Kauffmann in Danish Diplomacy 1919-1958* (Copenhagen: Samleren, 1996), 179-207. The United States was fortunate to have in its Army Air Force a famous Norwegian aviator and exile named Bernt Balchen, who had been the first person to fly over the North and the South Poles and was perhaps the only engineer in the world who knew how to build airfields in the frozen Arctic. Congress later awarded Balchen Honorary U.S. citizenship for his achievements, an honor previously only bestowed on Lafayette and Churchill. The author of this dissertation had the privilege of meeting Colonel Balchen at Sondrestromfjord, Greenland in 1973, just before his death.

that Sweden and Norway could have agreed on, but no such agreement was forthcoming.⁹³ Accordingly, Denmark, joined by Norway and Iceland, rejected “isolated neutrality” and, prodded by its pro-American Prime Minister, Hans Hedtoft, turned to NATO.

At the same time, the essentially anti-militaristic and pacifist domestic political realities prevalent in many Danish parties and embraced by a wide cross-section of Danish public opinion led Hedtoft to insist upon three conditions for Denmark’s joining the Alliance: no “foreign” bases in Denmark, no NATO military maneuvers or exercises on Danish soil absent explicit approval by the Danish government, and no nuclear weapons on Danish territory.⁹⁴ Denmark was joined by Norway and Iceland in this conditionality, thereby importing a Nordic sub-grouping into the Alliance championing the view that relations with the Soviet Union should not be aggravated and NATO’s defensive orientation should be emphasized. Denmark and Norway argued for years that if they were to accept nuclear-sharing arrangements, then Sweden and Finland would be disadvantaged since they would face heavy resistance from the Soviet Union/Russia if they had so proposed. Better, Denmark and Norway contend, for the Nordic region to remain for all intents and purposes a nuclear free region by preserving the “Nordic balance.”

In addition to its provenance in what these allies saw as “Nordic values” and the “Nordic balance,” Denmark’s strongly anti-nuclear policies also reflected the impassioned efforts by its greatest scientist, nuclear physicist and Nobel Prize winner Niels Bohr, who, despite having made crucial contributions to the Manhattan Project, had tried to persuade Franklin Roosevelt and Winston Churchill to share their nuclear secrets with the Soviet Union and put all nuclear weapons under international custodianship.⁹⁵ In 1950, Bohr wrote an open letter to the UN calling for total transparency in the nuclear fuel cycle, and in 1955 he organized the first Atoms for Peace Conference in Geneva.⁹⁶

By definition, then, Denmark’s three conditions meant that no U.S. units equipped with nuclear weapons would be deployed in Denmark. In 1952 and in

⁹³ Thorstein Børring Olsen, *Danmark og den kolde krig 1945-1969 – set gennem de seneste elleve ars forskning* Historie Jyske Samling, Volume 1995, No. 2, 246 [<https://tidsskrift.dk/historiejyskesamling/article/view/37589>]. Nikolaj Petersen’s account can be found at “The Atlantic Pact or the North? The Danish Alliance Decision 1949,” in *Danmark, the North and NATO, 1948-1962*, Carsten Due-Nielsen et. al. (eds.), 1991.

⁹⁴ “Denmark and NATO,” NATO website, under “NATO Declassified: Origins, My Country and NATO Series, Denmark [nato.int/cps/en/natohq/declassified_162357.htm].

⁹⁵ For an authoritative account of Bohr’s unsuccessful efforts, see: Richard Rhodes, *The Making of the Atomic Bomb* (New York: Simon & Shuster 1986), 552-538.

⁹⁶ Cindy Vestergaard, “Going Non-Nuclear in the Nuclear Alliance: the Danish Experience in NATO,” *European Security*, Vol. 23, Issue 1, 2014, 108.

1953, the Danish parliament, the Folketing, voted to reject deployment of U.S. tactical strike aircraft squadrons at bases in Denmark. At the first NATO Head of State Summit in Paris in 1957, the Danish Prime Minister, H.C. Hansen, joined with Norway in favoring a postponement of any decision on Eisenhower and Dulles's offer of an "atomic stockpile."⁹⁷ In his intervention, Hansen was clear in articulating the Danish nuclear opt-out. Although he stated that he had studied the offers closely and with an open mind, he emphasized the necessity:

To refer to the attitude of his Government regarding non-acceptance, under the present circumstances, of atomic warheads on Danish soil, an attitude which was well-known and which also applied to the question of the establishment on Danish soil of sites for missiles of intermediate range.⁹⁸

Both, however, agreed not to object in the name of Alliance solidarity and unity while making it clear their countries would not participate. In 1959, a Gallup poll indicated that only 6% of Danes favored equipping Danish anti-aircraft interceptor missiles with U.S. nuclear warheads.⁹⁹

One key exception to this Danish "nuclear free zone" policy was made, however, and that exception came in later decades to haunt Danish foreign policy. Greenland, a former Danish colony and in 1949 a remote Danish possession for which Denmark retained authority for foreign and security matters, was a special case. From Kauffmann's efforts during World War II, the United States already had built 8 air bases in Greenland, including at Thule, Narssarsuaq, and Søndrestrom. After World War II, the Truman Administration proposed in 1946 to buy Greenland (presaging President Trump's ill-fated offer in 2019), but Denmark, which has always viewed itself as having a moral responsibility to bring civilization to the Inuits in its former colony, refused.¹⁰⁰ In the early 1950s, as the Cold War took hold and deepened, the United States looked to this military infrastructure in Greenland as a crucial element of its capacity to project strategic nuclear strikes into the heartland of the Soviet Union.

In 1951, U.S. rights and prerogatives with regard to Greenland were codified in treaty form, with "joint defense areas" established within a 50-mile radius of Thule, Narssarsuaq, and Søndre Stromfjord and the United States being granted the right to "store supplies" and conduct unrestricted overflight rights above the

⁹⁷ *NATO 1957 Summit*, 27.

⁹⁸ *Ibid.*

⁹⁹ Gallup 1959: "Skal Vi Have Atomraketter?", TNS Gallup, April 23, 1959, 1.

¹⁰⁰ Petersen, Nikolaj. "SAC at Thule: Greenland in the U.S. Polar Strategy," *Journal of Cold War Studies*, Vol. 13, No. 2 (Spring 2011), 106. In a 1953 revision of the Danish Constitution, Greenland was made an integrated part of Denmark, with the same status as the rest of the country. Home Rule semi-autonomy was not granted until 1979.

island.¹⁰¹ The air base at Thule was seen as particularly strategic, since it offered a deployment location for air-to-air refueling units to support the Strategic Air Command's B-47 jet bombers, which required only one such refueling to reach targets in the USSR.¹⁰² In the early 1960s, four air defense radars, sites on the so-called DEW line (Distant Early Warning), were constructed across the lower third of the island, including two that were perched on the icecap itself, and Søndre Stromfjord was developed as the principal support base for these facilities. A few years later, the U.S. Ballistic Missile Early Warning System (BMEWS) missile tracking radar became operational at Thule.

None of these forward basing deployments initially involved the stationing of U.S. nuclear weapons at these locations. In 1957, though, the United States Ambassador in Copenhagen, Val Peterson, handed Danish Prime Minister H.C. Hansen an informal note inquiring whether the Danish Government had to be notified were the United States to decide to deploy or store nuclear weapons in Greenland. In a classified response that was not disclosed to the Danish public until it was discovered by chance and published nearly four decades later, Hansen stated that it was his impression "that your government did not see any problems with this matter" and that he did not "believe that your remarks require any comments from my side."¹⁰³ In short, he said: "don't ask; don't tell." In disclosing this correspondence publicly for the first time in 1995, the Danish Government acknowledged that the Prime Minister's response "could very properly be viewed as an authorization that stockpiling of nuclear weapons in Thule could take place" and that given this background, the United States "may well ... have acted in good faith."¹⁰⁴

Emboldened by Prime Minister Hansen's "green light," the United States proceeded to take advantage of its strategic opportunities. Beginning in 1958, the United States deployed nuclear weapons at Thule in a manner that basically equated to other U.S. nuclear deployments across NATO Europe, including pre-positioning of hydrogen bombs at Thule for B-47 pick-up and delivery in wartime, deployment at the base of nuclear-tipped Nike-Hercules anti-aircraft missile batteries, and stationing there of fighter aircraft squadrons armed with air-to-air nuclear tipped missiles.¹⁰⁵ In a 1957 report to President Eisenhower, the Office

¹⁰¹ *Grønland under den kolde krig: dansk og amerikansk sikkerhedspolitik 1945-68 (engelsk summary (København:), Dansk Udenrigspolitisk Institut (DUPI), 1997), 16.*

¹⁰² Jorgen Taagholt and Jens Claus Hansen, *Greenland: Security Perspectives*, Atlantic Treaty Association, 2001, 34. It is important to note that the shortest air routes between the northeast of the United States and the Soviet heartland crossed over Greenland and the Arctic Ocean.

¹⁰³ *DUPI 1997 Report*, 24.

¹⁰⁴ Taagholt and Hansen, 38.

¹⁰⁵ *Ibid.*

of the Secretary of Defense acknowledged that the Danish government had been “very cooperative in allowing the U.S. quite a free hand in Greenland.”¹⁰⁶

There is a strong basis for believing that Denmark – as represented by its senior-most decision-making authorities – appreciated during the period of the mid-to-late 1950s and well into the 1960s that there was a clear benefit to secretly accommodating the American strategic interest in Greenland, as long, that is, as it could be kept from the public. As one Danish defense specialist has put it, “there is some evidence to suggest that Danish officials made use of the so-called ‘Greenland card’ during most of the Cold War.”¹⁰⁷ By acquiescing to U.S. pressure to allow Greenland to serve as a platform for projecting strategic nuclear deterrence vis-à-vis the Soviet Union, Denmark could deflect American pressure on Denmark on other defense-related fronts, especially its relatively low rate of defense spending. And to the extent that the Danish public and leaders of opposition political parties were unaware of this acquiescence, the balancing act worked. As a landmark investigative study in 1997 that had been commissioned by the Danish Parliament two years earlier concluded, successive Danish governments had conducted a “dual nuclear policy” – one for public consumption and the other bilaterally with the United States under strict classification:

The Americans in reality got what they asked for, which is to say a sufficiently wide framework to satisfy their strategic needs in the years following. Denmark for its part achieved optimal results as far as its most important and realistic negotiating objective was concerned: the question of sovereignty. The picture given to the public, with its one-sided emphasis on the limited and strictly defensive nature of the agreement, was however only partially correct.¹⁰⁸

That deception, though, came to a crashing halt, literally, on January 21, 1968. One key feature of the strategic location of Thule had proven especially pivotal to U.S. strategic planning. The existence of aerial navigational aids at that base, such as the Tactical Air Navigation (TACAN) system, meant that U.S. SAC bombers, such as the B-52s, could beginning in 1961 fly from their home bases in CONUS and, armed with nuclear bombs, orbit Thule for many hours using the TACAN as a reference point. This allowed SAC to maintain a nuclear “airborne alert” posture that would ensure that the bombers were not “caught” on the ground in a Soviet surprise attack. From their orbits over Thule, code-named the

¹⁰⁶ *Ibid*, 41.

¹⁰⁷ Jens Ringsmose, “Paying for Protection: Denmark’s Military Expenditures During the Cold War,” *Cooperation and Conflict: Journal of the Nordic International Studies Association*, Vol 44, No. 1 2009, 73-97.

¹⁰⁸ *DUPI 1997 Report*, 41.

“Thule Monitor” by the U.S. Air Force, the B-52s could also ensure that the BMEWS had not been destroyed in a pre-emptive Soviet attack and was still operational and, if necessary, fly forward to their “Fail Safe” points should a nuclear crisis erupt.¹⁰⁹

On January 21, 1968, a B-52 heavy bomber armed with four 1.1 megaton Mk-28 hydrogen bombs was performing just such a mission over Thule. According to the U.S. Air Force’s subsequent accident investigation report,¹¹⁰ the co-pilot had brought several seat cushions along for the flight and had stuffed them under a seat, unknowingly blocking a heating vent. When the crew tried to warm the air temperature in the cockpit by inducting air from the jet engine manifolds, the seat cushions caught fire. Unable to extinguish or contain the fire, the bomber tried to make an emergency landing at Thule but lost engine power four miles short of the runway, forcing the crew to eject. In the crash that followed, none of the four nuclear bombs detonated in a critical nuclear reaction, but all four had their high explosive “triggers” explode, spreading highly radioactive plutonium pieces and dust across three square miles of the Arctic landscape. The United States immediately acknowledged the crash and accepted full responsibility for environmental remediation at the crash site. In the end, that required two years of clean-up works by hundreds of Danish and Inuit Greenlanders, and 147 freight cars worth of radioactive debris had to be recovered and shipped to a containment facility in South Carolina.¹¹¹

The 1968 Thule accident had a dramatic but short-term effect on Danish-American relations, as it exposed for all to see fundamental differences between the U.S. interpretation of its rights in Greenland under the 1951 Treaty as compared to what the Danish people had understood.¹¹² The day after the crash, the United States halted all nuclear airborne alert missions. Although the United States misleadingly stated that the B-52 had been on a “routine training mission,” it assured Denmark that no nuclear weapons were being or would be stored or deployed in Greenland. The second half of this statement was factually accurate; however, the Danish Foreign Minister angered U.S. authorities by publicly claiming that “The American authorities are aware of Denmark’s nuclear policy and the Danish Government assumes that there are no American

¹⁰⁹ This posturing was vividly brought to life in the fictional 1964 movie, *Dr. Strangelove*, in which a rogue SAC commander orders U.S. B-52s to proceed beyond their “Fail Safe” stations by utilizing an emergency attack passcode designation previously unknown to the civilian National Command Authorities.

¹¹⁰ The best summary of the accident investigation findings can be found in Eric Schlosser, *Command and Control* (New York: Penguin Books, 2013), 320-325.

¹¹¹ Hundreds of these workers are still pursuing legal action in an effort to force the Danish or U.S. governments to compensate them for higher-than-normal rates of cancer.

¹¹² For example, in 1961 Prime Minister Kampmann had publicly announced that Denmark’s restrictions on nuclear deployments or overflights in Denmark applied to Greenland.

overflights of Greenland carrying nuclear weapons.”¹¹³ This assertion, and a similar one two hours later by Prime Minister Krag, contradicted the U.S. understanding of the 1957 H.C. Hanen statement. Four months of negotiations were required until, in an exchange of diplomatic notes on May 31, 1968, the United States formally foreswore the need for a nuclear presence in or over Greenland.¹¹⁴

That said, Danish suspicions lingered, and not without some justification. As Eric Schlosser notes, despite terminating SAC’s nuclear-armed airborne alerts in 1968, “a B-52 secretly continued to fly back and forth above Thule, day and night, without nuclear weapons, just to make sure the BMEWS was still there.”¹¹⁵ In general, though, a period of calm prevailed on the nuclear stationing issue until again brought to the fore by NATO’s decision in 1979 to approve the deployment of *Pershing II* (P2) intermediate-range ballistic missiles and Ground Launched Cruise Missiles (GLCMs) of the same range in response to the Soviet Union’s deployment in its Western Military Districts of the SS-20 nuclear-armed intermediate-range ballistic missile.

Denmark categorically ruled out being a basing nation for either type of weapons system, and it favored a negotiated solution that was not backed up with a countervailing deployment program. Under pressure from the majority opposition parties, the minority government was forced to explicitly disassociate itself from the NATO deployments. This stance ushered in what is known at NATO and in Denmark as “the era of the Danish footnotes.” The Foreign Minister at that time, Uffe Ellemann-Jensen, apologized to Secretary of State Shultz, saying “if everybody behaved like Denmark, there would be no NATO,” but a work-around was found. After Denmark informed NATO that it would not contribute any resources, including funding, to support the deployment of the

¹¹³ *FRUS, 1964-1968, Vol. XII, Western Europe* (editorial Note).

¹¹⁴ Taagholt and Hansen, 44.

¹¹⁵ Schlosser, 325. The author of this dissertation has personal knowledge of this practice. From 1972-1973, as an Air Force Captain he commanded the 2014 Communications Squadron based at Søndrestrom Air Base with a detachment at Thule. The squadron included a contingent of USAF air traffic controllers who manned an International Civil Aviation Organization (ICAO) Area Control Center (ACC) providing positive air traffic control enroute services to all aircraft, military and civil, transiting the northern reaches of the North Atlantic Ocean in each direction between Canada and Norway. In 1972-1973, whenever the ACC received a flight plan from the U.S. Air Force indicating that a KC-135 tanker would be flying from Loring Air Force Base, Maine, to land at Thule, the ACC controllers knew that that was code for a B-52 mission orbiting over Thule. The ACC would protect that airspace, even though in the case of every such flight plan filing, the ACC would be informed just after the indicated departure time that the planned KC-135 flight had been “cancelled.” Since no Danish personnel were working as air traffic controllers at the ACC at Søndrestrom or the air base at Thule, Denmark was not privy to these missions. To the best of the author’s knowledge, the B-52s that were handled by the ACC in this manner did not carry nuclear weapons. Some years later, the United States transferred responsibility for all air traffic control in and over Greenland to Denmark and the Thule Monitor missions stopped.

NATO P2s and GLCMs and withheld its “share” of the NSIP budgets that it associated with these deployments, all other Allies “picked up” the Danish “share” of the related infrastructure costs within the NSIP budget. In return, though, Denmark increased by that same amount its assigned share of the other two common-funded budgets, thereby effectively offsetting the NSIP deficit.¹¹⁶ One senior Danish general complained at the time that the footnotes made Danes working at NATO between 1982 and 1988, when the footnoting stopped, feel like “pariahs.”¹¹⁷ Nonetheless, the footnotes ultimately came to be regarded simply as a “domestic political issue.”

Another contentious nuclear issue during the later Cold War years involved Denmark’s effort to prevent U.S. Navy ships or submarines carrying nuclear weapons or powered by nuclear reactors from entering Danish ports. In 1958, Prime Minister Hansen had cancelled a scheduled visit to Copenhagen by the nuclear-powered submarine USS *Skate* on these grounds. In response, the United States in 1959 enunciated what came to be known as the “neither confirm nor deny” policy.¹¹⁸ Over the next several decades, there were suspicions, just as had been the case with regard to the U.S. nuclear weapons presence at Thule, that the Danish government was following a “dual nuclear policy” in this case as well. This controversy came to a head in 1988, when the majority opposition parties in the Folketing passed a resolution reaffirming Denmark’s strict non-nuclear policy, leading to the resignation of the minority government and the calling of new elections.¹¹⁹ The resolution did not, however, require the commanders of U.S. Navy ships to certify that no nuclear weapons were on board. In the end, the ambiguity of a “see no evil, speak no evil” stance proved convenient to all sides until President George H.W. Bush in 1991 took the decision unilaterally to remove all nuclear weapons from U.S. warships as part of the early post-Cold War “Presidential Nuclear Initiatives” understanding with Russia.

The discovery by chance of the 1957 Hansen letter in 1995, though, brought the nuclear deployments issue back to life. The public uproar over this revelation was magnified when then-Foreign Minister Niels Helvig Petersen assured Danes publicly that the United States had “never” deployed any nuclear weapons in Greenland. Shortly afterwards, the United States sent Copenhagen a classified letter in which Secretary of Defense William Perry acknowledged the extent of its nuclear weapons deployments there from 1958 through 1965 while assuring

¹¹⁶ Conversations of author in my capacity as DEFAD with USNATO NSIP budget committee representatives. The Danish public was never informed of this subterfuge.

¹¹⁷ Vestergaard, “Going Non-Nuclear in the Nuclear Alliance,” 118.

¹¹⁸ H.M. Kristensen, “Neither Confirm Nor Deny: Nuclear Diplomacy at Work,” The Nuclear Information Project, 2006, 6. <http://www.nukestrat.com/pubs/NCND.pdf>

¹¹⁹ Vestergaard, 110.

Denmark that there had been no further deployments after that period. Despite its classification, the Danish government decided to disclose some of its contents in light of the misstatements by Foreign Minister Petersen.¹²⁰ The Danish government also commissioned the DUPI report on this issue, which made clear to all the extent to which U.S. nuclear overflights of Greenland had been routine and nuclear weapons had been stored there.¹²¹ The DUPI report concluded that Denmark's "dual nuclear policy" had been "formed in a gradual and largely reactive process, which was not least marked by uncertainty regarding the extent to which reservations in this area were compatible with membership of the Alliance."¹²² In effect, DUPI concluded, Denmark had formulated a strategy of "triangulation" – finding a balance between U.S. strategic interests, Soviet push-back and pressure, and broad-based domestic skepticism of all things nuclear.

What lessons can best be drawn from these nuclear antecedents? Clearly, Denmark from 1949 through the 1990s was trying to strike a balance with regard to the dilemma that all alliance members must confront. While gaining protection through alliance fidelity, to what extent can a small ally risk abandonment by making exceptions necessary to sustain public support for membership in that alliance? I agree with Thorsten B. Olesen that "even within the framework of NATO membership, Danish politics has had room to maneuver" and that "analyses that also weigh the domestic and national context" to an increasing degree challenge the notion that Danish security policy during the Cold War reflected the primacy of the Soviet threat or of American coercion.¹²³ This was reflected in the conditionality Denmark attached in 1949 to its joining NATO in the first place. It was also reflected in its effective enforcement of that conditionality in 1968 after the Thule crash. That said, as Jens Ringmose has observed, "In the minds of the responsible decision-makers, Denmark's security depended, first and foremost, on a reliable United States guarantee, and good relations with Uncle Sam were therefore of imperative significance."¹²⁴

¹²⁰ "United States Informs Denmark of Nuclear Weapons in Greenland," Nautilus Digital Library: FOIA Document, "Regarding Nuclear Activities at Thule Air Base, July 1995 [oldsite.nautilus.org/archives/library/security/foia/DKus95letter.html]:

¹²¹ Vestergaard, *Going Non-Nuclear in the Nuclear Alliance*, 114.

¹²² 1997 DUPI Report, 45.

¹²³ Thorstein Børring Olesen, "Denmark and the Cold War, 1945-1969 – Seen Through the Past Eleven Years of Research," *Historie Jyske Samling, Vol, 1995, No. 2*, 235 <https://tidsskrift.dk/historiejyskesamling/article/view/57589>.

¹²⁴ Ringmose, 84.

In short, a balance had to be struck, and a balance was struck.¹²⁵ The United States got the cooperation it needed from Denmark to meet its own strategic deterrence requirements, and Denmark avoided retribution from the Alliance leader by “punching above its weight” by contributing forces to other operational missions, including Afghanistan, Iraq, Kosovo, Libya, Counter-ISIS, VJTF, Baltic Air Policing and Iceland Air Surveillance. As one senior Danish General characterized these “compensatory” offsets: “Now we’re over-loyal.”¹²⁶

6.2.2. Situation Post-Crimea

Against this historical background, it is not surprising that when in June 2016 Denmark decided to purchase 27 F-35As to replace its aging F16 fleet starting in 2021, it chose not to order the DCA variant of the new aircraft. Rather, Danish authorities stressed the value of the aircraft in terms of its stealthy 5th-generation air defense penetration capabilities, which are particularly important in the face of Russia’s growing A2/AD deployments, and its interoperability with other NATO allies acquiring the F-35. Danish officials are clear that they do not believe they face any adverse consequences in making this choice.¹²⁷

Among all NATO member states, Denmark ranked highest (79%) in a 2020 Pew poll with regards to positive opinions of NATO.¹²⁸ In part, this reflects the pride Denmark takes in its long history of contributions to NATO operations and missions, which Danes see as “punching above its weight.” Denmark responded to Crimea with troop contributions to the German eFP in Lithuania, and its F-16s have taken turns in the BAP and Icelandic Air Surveillance rotations. In December 2020, Denmark took command from Canada for the NATO training mission in Iraq and increased its troop presence there by 285 military personnel.¹²⁹ In 2021, it assumed command of the NATO training mission in Iraq.

Despite a real increase of 35% since Wales in its defense budget, though, it remains just below 1.5 as a percentage of GDP. On the other hand, Denmark

¹²⁵ For an elaboration of this view, see: Thorstein Børring Olesen (ed), *The Cold War – and the Nordic Countries*, (Aarhus: University Press of Southern Denmark, 2004), 20. Olesen argues: “on the basis of a sober mixture of Realpolitik interests and small-state value orientation, top Danish foreign and security policymakers by and large succeeded in striking a delicate balance between military integration/deterrence (NATO membership) and screening/reassurance (NATO reservations); the gradual acceptance in both Moscow and Washington of this policy thus contributed to keeping Denmark and the rest of the Nordic area out of Cold war focal points: *Ibid.*, 31.

¹²⁶ Nikolaj Petersen, “‘Footnoting’ as a Political Instrument: Denmark’s NATO Policy in the 1980s,” *Cold War History*, Vol. 12, No. 2, 2012, xx.

¹²⁷ Interview, A1.

¹²⁸ *Summer 2020 Global Attitudes Survey*, 2.

¹²⁹ “Denmark Agrees to Send More Troops to Iraq’s NATO Training Mission,” *Reuters*, June 11, 2020.

ranks quite favorably in how it spends that money: 23% of its defense expenditures goes to equipment – more than meeting the Wales goal in this category. Against this background, Denmark took sharp exception to the Trump Administration’ attacks on its defense spending level. When President Trump cancelled his planned trip to Copenhagen in 2019 after its Prime Minister, Mette Fredericksen called his offer to buy Greenland “absurd,” Trump singled out Denmark’s defense budget (then about 1.35% of GDP) for criticism. In response, a former Prime Minister, Lars Løkke Rasmussen, invoked Denmark’s sacrifices in Afghanistan, where its casualty rate per capita matched that of the United States, and spoke movingly of the many funerals he had attended for Danish soldiers killed in action there.¹³⁰ On December 2, 2020, the out-going U.S. Ambassador in Copenhagen, Carla Sands, wrote an op-ed in a leading Danish newspaper in which the Ambassador called on Denmark to “rectify serious deficiencies” in its military in line with NATO guidelines. In a blunt retort, Danish Defense Minister Trine Bramsen said:

But in the discussions of percentages of GDP, we must not forget that the will and the ability to stand up when necessary should also bear weight. Denmark is at the very top in the NATO countries when it comes to standing up. The fact that Denmark is good at defending and solving tasks should not be criticized, but recognized.¹³¹

6.2.3. Assessment of Factors Con and Pro

6.2.3.1. Extra Cost

Moderate Effect: 0.50. For Denmark, the extra budgetary cost of using its F-35 acquisition to join NATO’s DCA posture would have been moderate, had it so decided. The substantial acquisition cost of the aircraft themselves (\$3.1B) would, in effect, have represented a “sunk cost,” and the immediate cost “delta” of giving this fleet nuclear delivery capability would have been relatively modest: presumably one-fifth of the total F-35A DCA variant R&D bill that is being shared between the United States and those NATO allies who are ordering this version (at present, Belgium, Netherlands, and Italy). In other words, Denmark’s pro rata share among five nations of a \$380M program would have been about \$76M, spread across the eight years of R&D spending on the DCA variant, or about \$10M a year.

The F-35 DCA aircrews would also require additional flying hours to achieve and maintain nuclear proficiency, previously estimated at about \$4.5M annually. In

¹³⁰ “Former Danish Leader Fires Back at Trump Over Defense Spending Comments,” *The Hill*, August 22, 2019.

¹³¹ “‘We Should Be Recognized, Not Criticized’: Denmark Dismisses US Reproach of its Military Budget,” *Sputnik*, December 2, 2020.

the Danish case, this would impose a strain, as the Danish Audit Agency, the Rigsrevisionen, has already questioned in a November 2018 report whether the Ministry of Defense's budget assumptions for the F-35 acquisition significantly underestimate the number of flying hours required to effectively operate the fleet.¹³²

If collocating the basing of its F-35s with the B61 bombs the aircraft would be modified to deliver were necessary, were Denmark to so decide, NATO's NSIP common budget could be tapped to build protective vaults at a designated air base in Denmark (presumably Karup). It would, however, be Denmark's sole financial responsibility to pay for roughly a battalion of troops needed for base defense and counter-terrorism protection. Unless Denmark chose to repurpose an existing light infantry battalion, that responsibility would have placed a moderate demand on the annual Danish defense budget (\$4.178 billion), exacerbated by Denmark's low level of defense spending as a percentage of GDP (1.47%).

6.2.3.2. Domestic Opposition to Nuclear Weapons

Full Effect: 1.0. Few principles are as inviolable to a state in deciding its national security policies than "Nordic values" are to Denmark. As one of the country's most respected diplomats, Ambassador Peter Taksøe-Jensen, stated in his 2016 report to the government on Denmark's foreign and security policy post-Crimea: "The starting point for Denmark's strategic orientation includes our European identity, our EU membership and shared Nordic values."¹³³ High on the list of core Nordic values is Denmark's long-held and deeply rooted rejection of nuclear weapons. Anything "nuclear" in Danish eyes is effectively "radioactive" in a political sense. Denmark prohibits nuclear power reactors on its soil and has pressured Sweden to close a reactor in Malmö. Polling data indicates that a large majority of Danes share this view, and it extends across the Danish political spectrum.¹³⁴ As noted by the 2018 ECFR report, "A large majority of the Danish public is against nuclear deterrence."¹³⁵

Any political party that espoused a nuclear role for Danish armed forces would quickly lose most of its popular support, and any coalition that included such a party would quickly fall. As a consequence of this strong domestic anti-nuclear sentiment, Denmark must maintain a delicate "balancing act," one that takes

¹³² "Danish Audit Agency Questions Data for F-35 Purchase," *Defense News*, November 13, 2018.

¹³³ Peter Taksøe-Jensen, *Danish Diplomacy and Defence in Times of Change (Executive Summary)*, May 1, 2016 report to the Danish Government, 3.

¹³⁴ ECFR "Eyes Tight Shut" Report.

¹³⁵ *Ibid.*

account of this political reality while also recognizing that it belongs to “a military alliance with nuclear capabilities at its core.”¹³⁶

6.2.3.3. Balance of Threat

Moderate Effect: .50. The 2018 ECFR report concluded that “Denmark generally perceives nuclear threats as less important than most other threats,” and that “Denmark does not perceive Russia as a threat despite the fact that it possesses nuclear weapons.”¹³⁷ That said, Denmark has no illusions about Russia’s strategic ambitions, especially in the context of its growing military presence in the Arctic.¹³⁸ The Danish Defense Minister, Trine Bramsen,

We take our responsibilities in the region very seriously. The Danish military has been present for many years in the Arctic and the North Atlantic, and the Danish government is planning to invest in strengthening Arctic capabilities. But the areas are vast and cannot be covered by one nation alone. This is why we highly value the special and strong cooperation between the United States and the Kingdom of Denmark. Our cooperation as well as the U.S. presence in the region has increased over the last couple of years. Our joint efforts benefit security and safety across the Arctic, Europe and the United States.¹³⁹

When Danish Prime Minister Mette Frederiksen met President Trump at the NATO London Summit in December 2019 (several months after the debacle on President Trump’s abortive effort to purchase Greenland), the Prime Minister impressed the President by emphasizing the role Denmark intended to play on behalf of the Alliance in projecting more military power in the High North, including rotational deployments of F-35s to bases in Greenland.¹⁴⁰ In February 2021, Denmark’s government reached agreement with the Folketing on an initiative to spend \$245 million to re-establish an air surveillance radar in the Faroe Islands and deploy reconnaissance drones in Greenland, with the Defense Minister, Trine Bramsen arguing that the country had a “special responsibility” for the region’s defense.¹⁴¹ In May, Biden’s Secretary of State, Tony Blinken,

¹³⁶ *Ibid.*

¹³⁷ *Ibid.*

¹³⁸ For a graphic representation from a Danish perspective of the current Russian air and submarine threat to Greenland, the Faeroe Islands, and the ocean areas comprising the Greenland-UK-Iceland (GIUK) “gap,” see: “Rigsfællesskabet Skal Have en Sikkerhedsaftale med USA,” *Politiken*, December 5, 2019, 10.

¹³⁹ Trine Bramsen, “Denmark’s Defense Minister: The Fight for Democratic Values Can Only Be Won Through Cooperation with Allies,” *Defense News*, January 11, 2021 www.defensenews.com/outlook.

¹⁴⁰ “Debat,” *Politiken*, December 5, 2019, 11.

¹⁴¹ Richard Milne, “Denmark Raises Investment in Arctic Surveillance to Counter Russian Build-up,” *Financial Times*, February 14, 2021.

commended Denmark for this enhancement during his first visit to Copenhagen in that capacity, saying that the United States shared Denmark's commitment to Arctic security.¹⁴²

Danish distrust of Russia dates to the immediate post-World War II period, when the Soviet Union was slow to remove its troops from Børnholm, a Danish island in the Baltic Sea that the USSR had occupied following heavy Soviet bombing in May 1945.¹⁴³ In this sense, geographic proximity does play a role in Danish threat perceptions of Russia. Such wariness was a consistent characteristic of Danish security policy through the Cold War, though Denmark always called for a balanced defense and detente strategy consistent with the NATO 1967 Harmel Report.

Russia's aggression in Ukraine in 2014 and increasingly malign behavior since have deepened Danish concerns about that great power's ambitions and intentions vis-à-vis Europe. Russian fighters' incursions into Danish airspace, including some "near-miss" situations where SAS commercial flights had to take evasive action, have prompted widespread public anger. Few developments have crystallized negative Danish attitudes concerning heavy-handed Russian blandishments more than the threat made by the Russian ambassador in Copenhagen in 2015, when Mikhail Vanin warned that if Denmark upgraded its frigates to give them an anti-missile intercept capability, Russia would make Denmark a target for nuclear strikes.¹⁴⁴

As Ambassador Taksøe-Jensen summarized the Danish view in his 2016 report: "A conventional military threat to Danish territory remains unlikely, but Denmark's and Europe's neighborhoods have become less secure. ... Russia's actions undermine the European security order and add a threat dimension which was unforeseen just a few years ago."¹⁴⁵ That said, Denmark's approach to Russia post-Crimea remains balanced and encourages engagement and strategic dialogue with its neighbor to the east whenever possible.

¹⁴² "Blinken Welcomes Danish Arctic Military Boost," *AFP*, May 17, 2021.

¹⁴³ The last Soviet military personnel did not leave Børnholm until a year after the war and for decades thereafter the USSR took the position that any stationing of non-Danish military forces on the island would be tantamount to a declaration of war. The first official visit to the island by a U.S. diplomat did not occur until 1991, after the fall of the Berlin Wall. As President Clinton's NSC Senior Director for Defense Policy and Arms Control, I had to get special State Department approval in 1994 for one of my NSC Directors to attend a conference on European Security at Rønne, the largest city on Børnholm.

¹⁴⁴ "Russia Threatens to Aim Nuclear Missiles at Denmark Ships if it Joins NATO Shield," *Reuters*, March 22, 2015.

¹⁴⁵ Taksøe-Jensen, 12.

6.2.3.4. Transatlantic Alignment

No Effect: 0.0. As an EU Member State that has opted out of CSDP, Denmark is a nation that looks to NATO, and in particular its relationship with the United States, as the “fundamental framework” for its foreign and security policy.¹⁴⁶ Denmark’s willingness to allow the stationing of the BMEWS radar at Thule despite repeated Soviet and then Russian complaints is also seen as establishing Denmark’s *bona fides* in terms of its bilateral security relationship with the United States.

6.2.3.5. Ranking/Status within NATO

No Effect: 0.0. Denmark has never viewed taking on a nuclear-sharing role as a means to increase its influence within NATO or with the United States. Instead, on nuclear cooperation matters it has followed what the eminent British strategist B.H. Liddell Hart termed “the indirect approach.”¹⁴⁷ From 1957-1968, it relied on its “dual nuclear policy” of secretly allowing the United States to make nuclear deployments to make sure the United States appreciated Denmark’s “flexibility” on nuclear matters critical to U.S. deterrence strategy. After that, it relied on ambiguity and plausible deniability under the cover of the “neither confirm nor deny” policy to finesse the issue of nuclear port visits. For 60 years, it has stood firmly in support of the BMEWS deployment at Thule, in effect “playing the ‘Greenland card’” to remind Washington that it is willing to take tough foreign policy positions vis-à-vis Russia that go to the heart of America’s strategic deterrence. Despite periodic Russian complaints, Denmark considers the status of BMEWS as settled and not up for discussion.¹⁴⁸

Denmark appreciates that since Crimea, the security environment in Europe has eroded and that Russian doctrine is changing for the worse and that this requires Denmark to consider what must be done to maintain deterrence and stability. Its assessment of necessary adaptations at NATO does not, however, extend to considering taking on a DCA role.¹⁴⁹ Instead, Denmark has found other ways to indirectly support the Alliance’s nuclear policy and posture. For example, in May 1965 it chose to be one of only 10 allies meeting in Paris in the original “Special Committee” of Defense Ministers that was a precursor to today’s NPG. Within that structure, though, it elected to participate in the Working Group on

¹⁴⁶ ECFR “Eyes Tight Shut” Report.

¹⁴⁷ B.H. Liddell Hart, *Strategy (paperback edition)* New York: Praeger, 1964, 18.

¹⁴⁸ Interview, A1.

¹⁴⁹ Interview, A1. This official expressed confidence, though, that in an Article 5 crisis, if SACEUR requested air support via the SNOWCAT program for NATO’s DCA force, Denmark would respond positively with its F-35s.

Communications, and not Nuclear Planning.¹⁵⁰ In 2017 it hosted a meeting of the NATO Nuclear Planning Group, after having consulted with the Folkeeting.¹⁵¹ Denmark also enjoyed the unique privilege of having its former Prime Minister, Anders Fogh Rasmussen, serving as NATO SGY at the time of Crimea in 2014 and throughout the initial NATO response phase, including the Wales Summit.

Although it acknowledges that DCA nations have an “advantage” in that they “are perceived to have gone the ‘extra mile,’” Denmark is convinced that its role in NATO, and especially its “punching above its weight” with regards to conventional military contributions, gives it special entrée in Washington, its opt out from DCA notwithstanding.¹⁵² As Ambassador Poulsen-Hansen appraised his country’s status in his 2016 report:

Denmark has a long tradition of pursuing a proactive security policy with significant contributions to international military operations. This has made Denmark a recognized partner and ally and given us influence within the UN, the EU and especially within NATO, despite Denmark’s opt-out from the EU Common Security and Defense Policy.¹⁵³

“Con” Opting-In		“Pro” Opting-In	
	Factor Weight		Factor Weight
Extra Cost	.50	Balance of Threat	.50
Domestic Opposition to Nuclear Weapons	1.0	Transatl. Alignment	0
		Ranking/Status within NATO	0
Total	1.50	total	.50

Table 17: Denmark: Summary of Independent Variable Interactions

¹⁵⁰ NATO Press Release (65) 19, “Special Committee of Defense Ministers,” November 27, 1965,

1.

¹⁵¹ Interview, A1.

¹⁵² Interview, A1.

¹⁵³ Jensen, 12.

6.3. GERMANY

This dissertation contends that within the domain of U.S./allied diplomacy regarding NATO nuclear-sharing arrangements, Germany is a special case. In part, this is because Germany is such a large, prosperous and geographically strategic ally. As Heiner Brauss and Christian Mölling have written: “due to its central location, its political weight, and its economic and military potential,” Germany has always had “a particular responsibility for safeguarding nuclear sharing.”¹⁵⁴

It is also a special case because, as historian Robert Kagan has observed, “the German question produced the Europe of today, as well as the transatlantic relationship of the past seven-plus decades.”¹⁵⁵ Or, as Marc Trachtenberg put it in his magisterial examination of what he termed “the making of the European settlement” between 1945 and 1963, there was “one exception” to the Soviet Union’s willingness, broadly speaking, to accept the post-WWII division of Europe into respective spheres of influence, and that had to do with Germany:

If the western countries could create a political system of their own in which German power was limited, this was something the USSR could live with; if they were unable to do so, there might be very serious trouble indeed.¹⁵⁶

In this context, it should be underscored that among the 11 NATO non-nuclear weapons states examined in this dissertation, only Germany ever seriously pursued its own nuclear capability during the Cold War.¹⁵⁷ This significantly raised the stakes for U.S. diplomacy: whereas the United States could afford to choose a laissez-faire attitude towards whether the other 10 allies opted-in or opted-out of NATO’s nuclear-sharing arrangements, it absolutely could not choose a laissez-faire attitude on the question of a sovereign and independent German nuclear capability. In short, while the United States fully understood that as a “middle power,” Germany was not “like the Benelux,” it was also in U.S. eyes not “like the UK and France.” After the UK and France achieved their own nuclear capabilities, the United States drew a line on further proliferation, and

¹⁵⁴ Brauss and Mölling, *DGAP Policy Brief No. 4.*, 5.

¹⁵⁵ Robert Kagan, “The New German Question: What Happens When Europe Comes Apart?”, *Foreign Affairs*, May-June 2019, 1.

¹⁵⁶ Trachtenberg, vii.

¹⁵⁷ As a following section of this chapter will discuss, Italy flirted with the idea of joining in a joint nuclear capability with France and Germany (i.e., the so-called “FIG” initiative), but this was short-lived and never resurrected after being rejected by De Gaulle upon his ascent to power. In addition, President Erdogan of Turkey in 2019 lashed out at his country’s being denied an independent capability under the NPT while NPT “outlier” nations (e.g., Israel) have a nuclear capability.

that meant that it had to demand – indeed insist – that Germany abandon any such ambitions. And for that concession to be acceptable in German eyes, the United States had to offer the Alliance credible nuclear-sharing arrangements as an *alternative*. And to be militarily or politically credible, any such arrangement had to include Germany.

Finally, beginning with the era that was ushered in with the entry into force of the NPT in 1975, Germany has been a special case in that it is the only larger NATO ally that joined in these arrangements to have later formally proposed that they be terminated. This German exceptionalism was manifested when in November 2009, when Chancellor Merkel (CDU) and Foreign Minister Guido Westerwelle (FPD) announced that pursuant to a coalition-agreed platform that brought the CDU and FDP into power, it would be Germany's intention as NATO negotiated its new Strategic Concept to seek allies' agreement to withdraw the remaining nuclear weapons in Germany. In the end, Germany failed to persuade the Alliance to adopt this position. In what James Davis and Ursula Jasper termed a "political U-turn," Merkel agreed to the consensus position in the DDPR that forward-deployed B61s were in fact critical to extended nuclear deterrence."¹⁵⁸ But as Giorgio Franceschini and Harald Müller have observed, the fact that Germany had launched this initiative "distinguished Germany from Italy and Turkey, the two other 'middle powers' hosting [tactical nuclear weapons] TNWs, who prefer to keep a low profile on the issue."¹⁵⁹

6.3.1. Nuclear-Sharing Antecedents

Few topics in the post-WWII IR literature have received more attention than foreign policy and security issues related to Germany's re-creation, re-integration, rearmament and eventual reunification following its unconditional surrender in May 1945.¹⁶⁰ This history is well-known, and for purposes of this dissertation can be briefly summarized.

6.3.1.1. Early Cold War Period

At Yalta in February 1945, President Roosevelt, Prime Minister Churchill and General Secretary Stalin effectively agreed, "in fact if not in words," to

¹⁵⁸ James W. Davis and Ursula Jasper, "Non-Strategic Nuclear Weapons as a 'Trojan Horse': Explaining Germany's Ambivalent Attitude," *European Security*, 23/1 (2014), 26.

¹⁵⁹ "Germany," Giorgio Franceschini and Harald Müller, in *Tactical Nuclear Weapons and Euro-Atlantic Security: The Future of NATO*, Paolo Foradori, Paola, ed. (New York: Routledge, 2013), 44.

¹⁶⁰ See, for example, Present at the Creation by Dean Acheson, Nuclear Weapons and Foreign Policy by Henry Kissinger, A Constructed Peace: The Making of the European Settlement 1945-1963 by Marc Trachtenberg, The Cold War Begins: Soviet American Conflict Over Eastern Europe by Lynn Davis, and Enduring Alliance: A History of NATO and the Postwar Global Order by Timothy Andrews Sayle.

arrangements that resulted in the division of Europe into “spheres of influence.”¹⁶¹ This included Poland, Axis allies in eastern Europe, and most notably, Germany. Once defeated, the original allied powers’ understanding was that Germany was to be organized into four zones of control (U.S. British, French and Soviet), with a 4-power Control Council to manage their interactions. At the Potsdam Summit five months later, and following the death of FDR, the new U.S. President, Truman, Churchill and Stalin agreed to what was effectively an “amicable divorce.” As Trachtenberg has summarized the outcome, once it had become evident that the disagreements with the Soviet Union were so fundamental that there was no basis for the kinds of cooperation that would allow the four powers to govern Germany as a single unit, “the way to get along was to pull apart.”¹⁶² Germany would be divided into *two* economic zones, not *four*, and the powers governing the west and the power governing the east would for all intents and purposes have dominion within their own halves.

By 1946, even this “live and let live” arrangement had broken down. When the Soviet Union kept troops in northern Iran in defiance of its earlier commitments and demanded military bases on the Turkish Straits, Truman came to appreciate that the Soviets were indeed pursuing expansionistic aims – if not in eastern Europe then to the south. In March, Churchill delivered his “Iron Curtain” speech in Independence, Missouri. The following January, General George Marshall, the newly-appointed Secretary of State, made one last American effort to try to find a basis for continuing the kind of pragmatic cooperation with the Soviets that he had enjoyed as U.S. Army Chief of Staff during the war. Marshall met with Stalin on the margins of a Ministerial meeting in Moscow in April, but their conversation found no common ground. Marshall came away convinced that there was no basis for cooperation on Germany, or any other issue in dispute between the former WWII allies.

What followed, the “Truman Doctrine” speech in March 1947 and the announcement of the Marshall Plan shortly thereafter, proved to be the foundational planks for the soon-to-be adopted American strategy of containment – a strategy that basically guided U.S. policy towards the USSR until the fall of the Berlin Wall in November 1989 and the dissolution of the Soviet Union in December 1991. A “Western strategy” soon emerged: a new Germany within the boundaries of the three western zones was to be organized economically and politically, protected by the Western powers, tied to the West through multilateral military and political organizations, and eventually rearmed.¹⁶³ Equally important, it was recognized that such a new Germany

¹⁶¹ Trachtenberg, 4.

¹⁶² *Ibid.*, 27.

¹⁶³ *Ibid.*, 63.

could only succeed if it was integrated into a devastated post-war Europe was also put back on its feet. In short, the U.S. policy became one of “building Europe” – a new Europe with Germany at its core.¹⁶⁴

After the Soviets cut access to Berlin later in 1947, the United States, UK and France formally agreed to establish this new German state, named the Federal Republic of Germany (FRG). They did so in full but sober recognition that Germany would be a state whose sovereignty and territorial integrity only U.S. military power and nuclear weapons could protect. They also recognized that the Soviet Union would strongly object, as it did.

The events of the next three years unfolded in rapid order. In February 1948 a Soviet-directed coup overthrew the democratically elected government of Czechoslovakia. In March of that year, Truman publicly committed to keep U.S. forces in West Germany, and five European allies (UK, France, Belgium, the Netherlands and Luxembourg) signed the Brussels Treaty, establishing the Western European Union (WEU), with UK Field Marshall Montgomery in command of a prototype “European army.” NATO was created in April 1949. However, it was not the NATO that we know today, as its original scope, strength and structure were far removed from what the organization soon evolved to become. Once it became evident that “home-grown” European military and security structures were not adequate to the Soviet threat, especially after the USSR detonated its own atomic bomb in August of 1949, NATO began a series of changes that took it from being a complement to an envisioned European-led defense to an organization on which Europe placed principal reliance for its own defense.

In 1950, French Foreign Minister Robert Schuman unveiled his plan for what two years later became the European Coal and Steel Community (ECSC), the precursor to today’s EU. The core objective of the ECSC was to put Germany’s industrial resources under the authority of a multinational administrative jurisdiction and thereby ensure that any future Germany could not itself decide to apply such resources to goals of aggression or expansion. As a security and defense “adjunct” to the ECSC, in October 1950 French Foreign Minister Plevin announced his proposal for a European Defense Community (EDC), in which a rearmed Germany whose soldiers would be subordinated to multinational European command.

6.3.1.2. Eisenhower “New Look” Era

Elected in November 1952, President Eisenhower favored the EDC as an appropriate vehicle for achieving a fair burden-sharing with Europe that would

¹⁶⁴ *Ibid.*

allow the United States to bring its troops home. The main task of providing a “shield” against Soviet invasion would fall to the EDC. In this context, NATO was intended simply to provide a “plug-in” mechanism for connecting the United States to Europe militarily, even though U.S. forces would not be forward-deployed. Eisenhower hoped that the combination of EDC providing “boots on the ground” and the United States providing a nuclear umbrella would suffice.

It was not to be. The UK was never that in favor of the EDC, since it had been left out of the original crafting by Plevin, but the *coup de grace* was administered by the French National Assembly. In August 1954 the parliament voted to reject the EDC. Whatever the French Government’s ambitions had been for the EDC, the French peoples’ representatives were simply not willing to take the chance that it would indeed constrain German rearmament and great power ambitions. Hence a greatly strengthened NATO – one underpinned by forward-deployed U.S. forces and nuclear weapons, became the operative “Plan B.”

In the fall of 1954, following the collapse of the EDC initiative, Ministerial conferences in London and Paris produced what came to be known as the “Paris Accords.” In Paragraph 15 of the Final Act of the Nine-Power Conference, attended in London by leaders of the United States, Canada, the UK, France, the FRG, Belgium, Italy and the Netherlands, Federal Chancellor Adenauer agreed “that the Federal Republic undertakes not to manufacture in its territory any atomic weapons.” For their part, the other 10 nations “agreed to recommend at the next Ministerial meeting of the North Atlantic Council that the Federal Republic of Germany should forthwith be invited to become a member.” In sum, Germany’s occupation was to be ended, the FRG would have the full authority of a sovereign state, it would be admitted to NATO with a new West German national army to be created with its forces subordinated to NATO command and control, no nuclear weapons would be allowed to be built on FRG soil, with enforcement by the WEU, and NATO to be strengthened via enhanced SACEUR powers.

The first U.S. nuclear bombs to arrive on German soil soon followed, roughly simultaneously with West Germany’s admission into NATO. As noted in Chapter 2, in March 1955 the U.S. Army deployed atomic cannons and Corporal short-range ballistic missiles to bolster U.S. forces forward-deployed there.¹⁶⁵ These weapons were not, however, in any way associated with German forces.

¹⁶⁵ Robert S. Norris, William M. Arkin, and William Barr, “Where They Were,” *Bulletin of American Scientists*, Vol. 55, No. 6 (Nov/Dec 1999), 29. The source of this information for the authors of this article is: *History of the Custody and Deployment of Nuclear Weapons: July 1945 through September 1977*, Office of the Assistant to the Secretary of Defense (Atomic Energy), February 1978. A redacted version of this document is available in the Office of the Secretary of Defense’s FOIA Reading Room, Room 2C757, The Pentagon. Appendix B, titled “Chronology Deployment by

That was not to last. FRG Chancellor Konrad Adenauer wanted his new nation to have the prerequisites of a major power. In the nuclear domain, this ambition was manifested in two principal respects: (1) the drive to have a greater German “voice” in U.S. nuclear basing, targeting and employment matters and (2) a determination to acquire greater – if not outright - control over nuclear weapons. In Adenauer’s view, the latter could be accomplished by different pathways: either independently or in tandem with other European powers, or, failing that, via a NATO nuclear-sharing arrangement that effectively put nuclear weapons under the authority of SACEUR.¹⁶⁶ Hence at a NAC in December 1956, after the first two paths were shown to be dead-ends, Germany was particularly outspoken in arguing in favor of delegating to SACEUR authority to use nuclear weapons allocated by the United States to the Alliance.¹⁶⁷

Both German goals, Catherine Kelleher argued, became more even more critical for Germany due to two controversies in the mid-1950s: the “Carte Blanche” air forces exercise in 1955 and the leaking of the “Radford Plan” the following year.¹⁶⁸ In “Carte Blanche,” 3,000 planes from 11 NATO air forces simulated dropping 335 nuclear bombs in a battle zone encompassed by West Germany, northeastern France and the Benelux, with a predicted death toll in Germany alone of over 2 million. As Diego Ruiz Palmer has observed, with a high degree of understatement, the employment of nuclear weapons on this scale on “friendly” territories had “unforeseen, but predictable, negative public repercussions.”¹⁶⁹ The “Radford Plan” refers to a proposal from Admiral Arthur Radford, Chairman of the U.S. Joint Chiefs of Staff, to President Eisenhower in the summer of 1956 to protect funding for nuclear modernization by slashing the size of the U.S. Army, including divisions forward-deployed in the FRG. Although generally consistent with Eisenhower’s “New Look” strategy, the leak of the proposal caught U.S. diplomats unprepared, and the reaction in the FRG was one of alarm and consternation. Although Germany unquestionably favored an early resort to nuclear weapons use were the Soviets to invade, the Radford Plan seemed to harken back to Dulles’ original “massive retaliation” formula and ignored the emphasis being devoted at NATO on conventional deterrent

Country 1951-1977 does not redact the information about U.S. nuclear weapons deployments in West Germany.

¹⁶⁶ The first ground-breaking and still authoritative analysis of this history was presented by Catherin McArdle Kelleher in 1975 in Germany and the Politics of Nuclear Weapons (New York: Columbia University Press). Two decades later, she was appointed by President Clinton as Defense Advisor to Ambassador Robert at the U.S. Mission to NATO. In 1999, the author of this dissertation had the honor and privilege of being her successor, one occupant removed.

¹⁶⁷ Trachtenberg, 176.

¹⁶⁸ Kelleher, 34.

¹⁶⁹ Ruiz Palmer, 29.

capabilities that could function as a “shield” in tandem with the threat of nuclear first use.

In July 1956, Chancellor Adenauer visited Washington with what he thought was “good news.” Germany would soon adopt a conscription law allowing it to raise the 12 divisions being demanded by NATO.¹⁷⁰ When Dulles responded with only a “polite smile,” Adenauer suspected “something may be wrong.” A few weeks later, the Radford Plan leaked, and Adenauer said, “I am lost.” Not only had he expended political capital to push through the conscription law in the face of SPD opposition, now only to be told the 12 divisions might not be needed after all, but it was also obvious to all that he had not been consulted on the Plan and had diminished influence in Washington. In September Adenauer lashed out publicly, writing in the FRG Chancellor *Bulletin*: “I would like to stress distinctly that for the time being I consider it unsuitable to shift the center of gravity to nuclear weapons.”¹⁷¹ U.S. policy-makers scrambled to assure West Germany that there was no plan “for the time being” to reduce U.S. troop strength in the FRG, but the damage was done.

6.3.1.3. Eisenhower Proposes “Atomic Stockpile” and IRBMs

Beginning that September, the SPD had made atomic armaments the principal focus and watchword of its opposition to the Adenauer government. Adenauer and his Defense Minister, Franz Joseph Struss, strongly contested the SPD’s anti-nuclearism, arguing that agreeing that NATO must be equipped with atomic armaments was “an absolute requirement.”¹⁷² In the final debate in the Bundestag on this issue, the Chancellor said:

I want as many Germans as possible to hear this. If an important part of NATO doesn’t possess weapons as strong as those of its potential opponents ... then it has neither significance nor importance. If the strategic planning of NATO ... desires that we too, the Federal Republic, make use of this development, and if we hesitate to do so, then we automatically leave NATO (and are left at the mercy of the Soviet Union).¹⁷³

Defeated on this issue in the Bundestag, the SPD responded by launching its “Kampf dem Atomtod” - Campaign Against Atomic Death.” Adenauer countered by shifting the focus to dual-capable weapons, armament types whose nuclear warheads would remain in U.S. custody. Strauss termed this approach

¹⁷⁰ “West Germany: The Old Man’s Anger,” *Time*, September 3, 1956.

¹⁷¹ *Ibid.*

¹⁷² Kelleher, 112.

¹⁷³ *Ibid.*, 94.

“mitbestimmungsrecht” – or “co-determination” wherein German would have the right to have a say in their posture and employment policy.¹⁷⁴ In the wake of their defeat on these nuclear issues, the SPD turned to more moderate reformers, such as Willy Brandt and, later, Helmut Schmidt, who had called on their party to reject its pacifist association.

There is no question that NATO “desired that” the FRG, in Adenauer’s phrase, “make use of this development.” In the summer of 1957, as allies began to hear about the incipient Eisenhower plan to offer NATO nuclear warheads and IRBM production, the NATO Secretary General, SYG Lord Ismay said that a refusal by Germany to participate in a NATO nuclear-sharing arrangement “would have the most dangerous consequences for strategy, would harm the Alliance, and force the organization to review its military strategy.”¹⁷⁵ Nevertheless, one month before the December 1957 NATO Paris summit, Dulles met with German Foreign Minister Brentano at Dulles’ residence. There, von Brentano informed Dulles that despite its support in principle for NATO having these weapons, Germany was opposed to accepting any of the IRBMs that Eisenhower was expected to offer at the Summit if the sites for their deployment were *fixed* (i.e., not deployed on mobile transporters), since the liquid-fueled missiles would take 45 minutes to be launched but the warning time for them to be struck in a Soviet attack was only six minutes.”¹⁷⁶ German Defense Minister Franz-Josef Strauss agreed and also ruled them out unless they were made mobile.¹⁷⁷

At the Paris Summit Adenauer was one of the first to speak, agreeing that NATO needed the missiles but avoiding the issue of who would host them:

A decisive step towards peace would be accomplished by a general disarmament under international control. Unfortunately, the results of the efforts of the Alliance to achieve this aim had not been encouraging during the past year. ... As long as the Western efforts to create a viable order of peace made no progress and as long as the Soviet threat persisted, the military strength of the Alliance must be so organized as to be ready to meet aggression at any time. For this purpose the Alliance as a whole must be equipped with advanced weapons equal to those of their potential enemy.¹⁷⁸

After the Summit, as SACEUR surveyed allies to decide which he should propose as IRBM hosts, the UK worried that provision of the *Jupiters* to Germany would

¹⁷⁴ *Ibid*, 138.

¹⁷⁵ Trachtenberg.

¹⁷⁶ *FRUS*, Vol. IV, 1955-1957, 205.

¹⁷⁷ Kelleher, 107.

¹⁷⁸ *NATO 1957 Summit*, 8-9.

open the door for an independent German “finger-on-the-button.” The UK pressed the United States to “go slow” in making its IRBM “down-select.”¹⁷⁹ Meanwhile, Adenauer continued to play the independent capability card to try to pressure the United States to agree to giving allies greater control over the warheads. In April 1957, Adenauer, worried that the United States might extend diplomatic recognition to the German Democratic Republic (GDR) or agree to Soviet demands for German neutrality, had “let slip” to the Soviet Ambassador in Bonn that faced with the U.S. opposition to providing his country with a nuclear capability, “he was close to deciding to develop an independent program.”¹⁸⁰

It is not clear to what extent this was a bluff. Kelleher believed it was simply a bargaining tool. One senior NATO official interviewed maintains that “there was never in post-world war history a realistic approach for Germany to get their own nuclear capability.”¹⁸¹ A contrary view is held by Gene Gerzhoy, who argues that examining West Germany’s nuclear history disproves “the mistaken belief – still common among political scientists studying nuclear proliferation – that German nuclear ambitions were fleeting or nonexistent.”¹⁸² Whichever view is correct, there is no question but that successive American administrations believed that was Adenauer’s intention, and that the nuclear-sharing arrangements that were proffered were intended in large measure to provide a viable alternative.

In time, Adenauer came to accept that an independent capability was not politically attainable. But that did not rule out multilateral arrangements or indirect control through NATO. As Kelleher concludes: “In the nuclear sphere just as in other areas, the Federal Republic wanted general recognition of equality;” that is, “explicit or implicit equality with Britain and France vis-à-vis the United States.”¹⁸³ In pursuit of this goal, Adenauer in 1957-1958 engaged with France and Italy in development of the concept of a joint 3-power European nuclear deterrent. The so-called “FIG” (France-Italy-Germany”) negotiations sputtered along for a year, but when Charles de Gaulle returned to power in 1958, he terminated the discussions.¹⁸⁴ Strauss then pursued a range of options during the last years of the Eisenhower era, including a SHAPE proposal in late 1959 for European production of a mobile land-based version of the *Polaris* missile that would be deployed under SACEUR’s control. However, none of

¹⁷⁹ Trachtenberg, 219.

¹⁸⁰ Richard H. Immerman, *John Foster Dulles: Piety, Pragmatism, and Power in U.S. Foreign Policy* (Wilmington, Delaware: Scholarly Resources, 1999), 187.

¹⁸¹ Interview, N2.

¹⁸² Gene Gerzhoy, “Alliance Coercion and Nuclear Restraint: How the United States Thwarted West Germany’s Nuclear Ambitions,” *International Security*, Vol. 39, No. 4 (Spring 2015), 93.

¹⁸³ Kelleher, 155.

¹⁸⁴ Gerzhoy, 110.

these concepts for making NATO the world's "fourth nuclear power" had found consensus in NATO by the time John F. Kennedy was elected in November 1960.

6.3.1.4. MLF Era

As noted in Chapter 3, upon taking office President Kennedy revoked Eisenhower's nuclear-sharing concepts and insisted on the U.S. President having the final say in nuclear weapons release decisions. In mid-1962, SACEUR Norstadt was retired and orders were given to install PALs on all American nuclear warheads in Europe. The Kennedy Administration began the long and ultimately unsuccessful search for a MLF solution, with numerous basing and manning schemes considered and rejected, all of which held firm to Kennedy's insistence that any European sharing in nuclear C2 decision-making would be *pro forma*. As Trachtenberg notes:

Under Kennedy nuclear-sharing was no longer a goal of American policy. The term itself fell into disfavor, and people were beginning to talk instead about the great problem of nuclear "proliferation." The allies were now encouraged to leave the "nuclear deterrent business" in American hands.¹⁸⁵

This period also saw tensions rise between Washington and Bonn as McNamara pressed his flexible response doctrine into an official NATO strategy. For Adenauer, this seemed the worst of both worlds: not only would Germany be denied a meaningful say in nuclear use decisions, but its army would be asked to serve as the "foot soldiers" in NATO's defense posture.

Matters came to a head in January 1963. On January 14 De Gaulle announced that France would veto Britain's entry into the EEC, couching the argument in terms very similar to arguments now being made at the Elysée Palace for EU "strategic autonomy." Seeing this decision as an unacceptable demonstration of anti-Americanism, Kennedy was further angered when just a week later, Adenauer traveled to Paris to sign a bilateral treaty of friendship. Implicit in this accord was the expectation that France would work with Germany, and perhaps the other EEC member states, to develop a truly "European" nuclear deterrent. Indeed, at the January 14 press conference, De Gaulle had defended Germany's right to acquire nuclear weapons in its own right. Kennedy in effect delivered Adenauer an ultimatum: you can be with France or with the United States in enjoying the benefits of extended nuclear deterrence, but you must choose sides.¹⁸⁶

¹⁸⁵ Trachtenberg, 285.

¹⁸⁶ *Ibid.*, 374.

Kennedy went even further to intervene in internal CDU politics and encourage Adenauer's more pro-American Vice Chancellor and Finance Minister, Ludwig Erhard, to insist on attaching a preamble to the Franco-German treaty making clear Germany's allegiance to NATO. Erhard had opposed the treaty because he saw it as substituting "dependency on the French for dependence on America."¹⁸⁷ In the turmoil that followed, the CDU decided to replace Adenauer as Chancellor with Erhard, although Adenauer remained as CDU party leader. In 1965, Erhard won re-election as Chancellor in his own right.

Although Erhard miscalculated in supporting the United States on the Vietnam War, his period as Chancellor was marked by a series of important developments related to non-proliferation that had been opposed by Adenauer, including signing the Limited Nuclear Test Ban Treaty and launching the negotiations that led to the NPT. In effect, the world's major powers – the United States, Soviet Union, China, UK and France – came together to put in place a multilateral and global treaty framework that formally denied Germany a nuclear option.

Following Erhard's resignation in October 1966, Germany was governed by a CDU-SPD grand coalition under Kurt Georg Kiesinger. The German Defense Minister in this government, Gerhard Schröder, at the December 1966 DPC meeting of Defense and Foreign Ministers in Paris called for improvements in the nuclear consultative arrangements:

The German Government would like to suggest a study of whether and how those allies, from whose territory nuclear weapons would be employed or on whose soil they would have their effects if used against an attack, could be given a *special influence* on the decision to release these weapons." (emphasis added)¹⁸⁸

This German request led to the decision to accept the proposal from the "Special Committee" of Defense Ministers to establish two permanent bodies for nuclear planning – a policy body called the Nuclear Defense Affairs Committee, open to all NATO allies, and subordinate to it, a Nuclear Planning Group of seven members which was tasked with handling the "detailed work."¹⁸⁹ The original members of 7-nation NPG in 1967 were the United States, the UK, Canada,

¹⁸⁷ Gerzhoy, 116.

¹⁸⁸ NATO DPC/R (66)11, "Summary Record of a Meeting Held at the Permanent Headquarters, Paris, 16e., on Wednesday, 14 December, 1966, at 3.30 p.m.," 18. It was at this meeting that France's decision under President Charles de Gaulle to terminate participation in the NATO Integrated Military Command took effect. This explains why the Ministerial meeting was conducted under the auspices of the DPC and not the NAC. It was also at this meeting that NATO decided to move its Permanent Headquarters to Belgium. (NATO Press Release, M3(66)3, "Final Communiqué," 5.

¹⁸⁹ *Ibid.*, 3.

Germany, Italy, the Netherlands, and Turkey, with Greece rotating into the Turkish seat at some stage in the group's initial January 1967-June 1968 work period.¹⁹⁰ In time, the 7-member NPG was broadened to include all allies.

Andreas Lutsch has convincingly argued that: "Politically, the primary addressee of the NPG was the FRG." Citing U.S. diplomat George Ball's comment in 1965, that "without an alliance nuclear arrangement there will inevitably be pressures for a German nuclear force," Lutsch maintains that the key criterion of the efforts during this era to share nuclear information more widely within NATO was whether it "would satisfy German nuclear ambitions," explaining:

The establishment of a permanent nuclear consultation arrangement in NATO went hand-in-hand with a brusque end of the concept to answering the German nuclear question by implementing some form of hardware solution – for example, a collective strategic nuclear force with U.S. involvement. This outcome was a heavy blow for German decision-makers and administrative allies who had demanded some form of hardware solution for years – not as an end in itself, but as a means to tie West Germany more strongly to the West by enhancing END credibility through German participation in strategic nuclear deterrence.¹⁹¹

Despite grouching from the SPD's Egon Bahr that "consultations are fables for non-nuclear children" and the CDU's Franz-Josef Strauss that the NPG allowed only for "docile self-deception," the FRG decided in the end that the new consultative body "was at least more than nothing."¹⁹²

6.3.1.5. INF Era

Chapter 2 has already outlined the principal milestones that led to NATO's 1979 "double-track" decision and the signing of the INF Treaty in 1986, including Chancellor Helmut Schmidt's pivotal role in that period. Two points bear repeated in this case study. First, consistent with the 1967 Harmel Report and *Ostpolitik* as it was conducted under SPD Chancellor Willy Brandt in the early 1970s, Germany insisted that an arms control track had to be created in parallel with NATO's deployment track. Second, Germany insisted that it could not be alone in bearing the burdens and risks of the cruise missile and Pershing deployments; i.e., that other European NATO allies had also to commit to host some reasonable share of the new weapons. This policy, known as "non-

¹⁹⁰ NATO Press Release (66)15, "Meeting of Nuclear Defense Affairs Committee," Paris, December 19, 1966, 1.

¹⁹¹ Andreas Lutsch, "Merely 'Docile Self-Deception'? German Experiences with Nuclear Consultations in NATO," *Journal of Strategic Studies*, Vol. 39, No. 4, 2016, 539-542.

¹⁹² *Ibid.*, 542-543.

singularization,” remains highly relevant today as Germany, and the other DCA participating allies in Western Europe, consider their positions on this issue.

6.3.1.6. PNI and Post-Cold War Era

With the fall of the Berlin Wall in 1989 and the dissolution of the Soviet Union two years later, Germany was able to finally realize its most cherished post-WWII objective, reunification. To be sure, political constraints still applied: the “3 No’s” policy prohibited moving U.S. nuclear weapons into the territory of the former German Democratic Republic. But overall, for Germany this was an era of breathtaking progress in nuclear disarmament and political rapprochement with Russia. Thousands of tactical nuclear warheads of all types were removed from sites across the country, and although nuclear gravity bombs remained, they were, according to open sources, removed altogether from two of the three German “national” air bases: Norvenich and Memmingen.¹⁹³ In 2009, as noted, Chancellor Merkel yielded to her SPD FDP partner in the German governing coalition to propose that NATO agree in the course of negotiating the DDPR to remove the remaining B-61 bombs from air bases in Germany as well. Although the initiative was supported by Belgium, the Netherlands and Luxembourg, it met strong resistance from other European allies as well as the United States, and it was not accepted.

6.3.2. Situation Post-Crimea

Of the 11 allies studied in this dissertation, only Canada and Germany face near-term decisions regarding their next generation fighter aircraft. In this context, the 2018 ECFR Report categorized Germany as “conflicted.”¹⁹⁴ Unlike Canada, though, which as noted technically is still considering the F-35 as one option to replace its aging fleet of F-18s, Germany in 2018 eliminated the F-35 from its Tornado replacement competition. As noted, according to published reports (which neither NATO nor U.S. officials officially confirm nor deny), Germany’s participation in NATO’s “nuclear integration” includes (a) hosting a small number of U.S. B-61 nuclear bombs at its air force base at Buechel and (b) maintaining a modest number of “nuclear-wired” PA-200 Tornado fighter bombers and specially trained aircrews and support personnel in a nuclear weapons delivery proficiency status that would allow these aircraft and their pilots to carry out either conventional or nuclear attack roles.¹⁹⁵

¹⁹³ Kristensen, 57.

¹⁹⁴ ECFR “*Eyes Wide Shut*” Report.

¹⁹⁵ See, for example, The Future of Extended Deterrence: The United States, NATO and Beyond. Stephanie Von Hlatky and Andrew Wenger, eds. (Washington, DC: George Washington University Press, 2015), Table I.2, 11, citing data published by Hans M. Kristensen and Robert S. Norris in “U.S. Tactical Nuclear Weapons in Europe,” Bulletin of Atomic Scientists, No. 67: 1, 2011.

On January 31, 2019, Germany's Ministry of Defense revealed that it had eliminated from its Tornado replacement fighter competition the stealthy F-35 "fifth generation" fighter, which has been designed by Lockheed Martin with the NATO DCA mission's air defense penetration requirements specifically in mind.¹⁹⁶ Germany's elimination of the F-35 leaves only two "fourth-generation" competitors in play to replace the Tornado: the proposed German-French-Italian Advanced Eurofighter (seen by both countries as a "stepping stone" on the path to their proposed "sixth-generation" Future Combat Air System (FCAS), which is intended to replace Eurofighter and the French Rafael starting in 2040) and the U.S. F-18F Super Hornet, manufactured by Boeing.¹⁹⁷

The concern in some quarters has been that neither the advanced Eurofighter nor the F-18F can be assumed to be equipped and certified by the United States for B-61 Mod 12 nuclear weapons delivery – at least in time to meet a realistic replacement timeline for its existing Tornado DCA fleet, i.e., 2025-2030.¹⁹⁸ In the case of the Advanced Eurofighter, the issue is whether the U.S. Government's nuclear security community will be willing to "trust" French and German manufacturers with the highly classified nuclear control wiring and software needed to be built into these platforms. Conversely, as Emmanuelle Maitre has noted, "it is doubtful that foreign companies would readily agree to share industrial secrets with the United States to receive the necessary license for nuclear missions."¹⁹⁹

These proprietary issues would not apply in the case of the F-18F. However, although Boeing has consistently expressed confidence that its Super Hornet could be certified for B61 delivery, which in an earlier U.S. Navy version prior to the Bush-era PNIs did have nuclear-delivery capability, the question is principally one of the time required, once ordered, to retrofit the aircraft with the necessary hardwiring and software and certify it for nuclear delivery, given the many changes in the F-18 as it has evolved into its current Super Hornet.²⁰⁰

¹⁹⁶ "Germany Officially Knocks F-35 out of Competition to Replace Tornado," Defense News, January 31, 2019.

¹⁹⁷ *Ibid.* On May 17, 2021, France, Germany and Spain announced that they had reached final agreement on the €100 billion FCAS development program.

¹⁹⁸ LtGen Heiner Brauss (German AF, ret.), a former NATO Assistant Secretary General for Defense Policy and Plans, has argued that "the Tornado is meant to be decommissioned step-by-step as of 2025; to keep it operating even until 2030 would be technically risky as well as very costly." [Heinrich Brauss and Christian Mölling, "The Tornado Complex: Conflicting Goals & Possible Solutions for the New German Comat Aircraft," *German Council on Foreign Relations Policy Brief No. 05, February 2020*, 3]

¹⁹⁹ Emmanuelle Maitre, "NATO, the F35 and European Nuclear Dilemmas," Note de la Fondation pour la Recherche Stratégique No. 08/2016, February 22, 2016.

²⁰⁰ One senior NATO official interviewed recommended that Washington be "more flexible" in its nuclear certification policy, arguing that "From a strategic point of view, it's more important to secure the DCA program than trying to force European nations to buy U.S." [Interview, N2.]

As Binnendijk and Townsend have cautioned, in both cases the bottom line seems to be that: “Certification for the Typhoon and F-18s would take additional time, money and German political capital.”²⁰¹ With regard to cost, Maitre has noted that it would “be more expensive to adapt many different systems to the [B61] bomb than one;” i.e., by rejecting the F-35 option, Germany cannot take advantage of the economies of scale for the nuclear modification cost-sharing with other NATO allies who are acquiring this fighter (Italy, Netherlands and Belgium).²⁰² One defense expert has estimated this cost at \$300 million.²⁰³

Instead, some German defense specialists had believed that Germany would in the end postpone a decision indefinitely and resolve to spend whatever is required to keep the existing fleet of nuclear-capable Tornados flying in their DCA role well beyond their previously estimated obsolete date.²⁰⁴ However, this approach would have been at the expense of the aircraft’s ability in coming years to perform this mission in the face of growing Russian Anti-Access/Area Denial (A2/AD) capabilities, which in the view of at least one U.S. defense expert is “already questionable”.²⁰⁵ As a Lockheed Martin official (admittedly not an unbiased observer) explained with reference to the other NATO allied air forces that will be operating F-35s, “So when we go off and collaborate together operationally, if you are flying stealth, fifth-generation jets, you don’t want a fourth-generation jet in the middle of your operations because everyone can see it.”²⁰⁶ A senior allied official interviewed for this dissertation identified 2028 as the “latest” date for replacing the Tornados.²⁰⁷

Despite these gloomy prognoses, in March 2020 reports began emerging that Germany would opt for a “mixed buy” of aircraft to replace its existing Tornado fleet: 30 F/A-18E/Fs to assume the DCA role, 90 advanced Eurofighters for

²⁰¹ Hans Binnendijk and Jim Townsend, “German F-35 Decision Sacrifices NATO Capability for Franco-German Industrial Cooperation,” www.defensenews.com, February 8, 2019.

²⁰² Maitre.

²⁰³ See, for example, Malcom Chalmers, “NATO Dual-Capable Aircraft: A Stock-Take,” in *NATO’s Tactical Nuclear Dilemma*, RUSI Occasional Paper, March 2010, 28.

²⁰⁴ See, for example, Karl-Heinz Kamp, President of the Federal Academy for Security Policy, who said in June 2018 that Germany would in the end opt to keep the Tornados flying, whatever it takes (“Could U.S. Politics Impact Germany’s Next Atomic Warplane?”, *Defense News*, August 17, 2018).

²⁰⁵ Daniel Gouré, “Nuclear Burden-Sharing Dictates that Germany Acquire F-35,” *Defense News*, May 8, 2018. Binnendijk and Townsend argue that while a strong Franco-German “engine” at the heart of European defense is to be encouraged, “it should not come at the expense of optimal NATO air power and deterrence.” (Binnendijk and Townsend)

²⁰⁶ “Germany’s F-35 Fighter Rebuff Raises Questions for NATO Partners,” *Financial Times*, April 29, 2019. Indeed, the former German Chief of Defense Staff, Luftwaffe LtGen Karl Muellner, was retired early after making similar public comments in support of the F-35’s fifth-generation stealth technology at industry events in 2017 and 2018.

²⁰⁷ Interview, A1.

conventional munitions delivery roles, and 15 EA-18G Growlers (another variant of the original F-18) to take over the electronic warfare mission assigned to some of the current Tornado force.²⁰⁸ Boeing, the manufacturer of the F-18F, expressed confidence that the necessary nuclear modifications could take place in the time available, which other unconfirmed reports suggest would, according to the Pentagon, be three-to-five years sooner than would be possible with a Typhoon nuclear certification.²⁰⁹ That said, Brauss and Mölling cautioned in an April 2020 podcast that it is uncertain whether in the current coalition the SPD will agree to support any “mixed buy” if any part of it involves a U.S.-manufactured aircraft – whether the F-35 or the F-18.²¹⁰

These concerns seemed to be borne out in April 2020, when, after it emerged that Defense Minister Annagret Kramp-Karrenbauer (known in Germany as “AKK”) had written the U.S. Secretary of Defense indicating German willingness to pursue the F-18F DCA option, the spokesman for the SPD group in the German parliament, Fritz Felgentreu, declared, “As long as we have no opportunity to examine the ministry’s choice, to evaluate it critically, and to compare it against the alternatives, the SPD will certainly not go along with this process.”²¹¹ Some SPD leaders went further. Co-SPD party leader Saskia Esken said: “Atomic weaponry on German soil, on German airplanes, is neither an end to itself nor desirable, not to mention very expensive.”²¹²

Despite this challenge, in an interview with a German newspaper on April 21, 2020, Minister Kramp-Karrenbauer confirmed her government’s intention to pursue this acquisition and said, “as long as these weapons exist, even in countries that are not part of NATO, nuclear participation serves our security.”²¹³ A senior Trump official interviewed described the German MoD as “115% committed to this mission” and opined that “the good thing about Germany is once they make a decision, they stick by it.”²¹⁴ AKK received support from the German Foreign Minister, Heiko Maas, who is the senior SPD official in the Merkel’s coalition. In remarks during a visit to Hiroshima, he opposed a unilateral pull-out of nuclear bombs, saying: “It’s no use if nuclear weapons are

²⁰⁸ “Germany Reportedly Moving Toward a Split Buy of Super Hornets, Growlers and Eurofighter Typhoons to replace Tornado Jets,” *Defense News*, March 27, 2020.

²⁰⁹ “Boeing’s F-18 Jet May Have a Leg Up in Germany Over Eurofighter,” *Defense News*, October 4, 2019.

²¹⁰ Heiner Brauss and Christian Mölling, “Replacing the Tornado: The Strategic and Political Debate,” *American Institute for Contemporary German Studies (AICGS): The Zeitgeist Podcast Episode 22*, hosted by Jeff Radtke, President, AICGS, April 3, 2020.

²¹¹ “Nuclear Row Over US Jets Splits Angela Merkel Government,” *The Times* (UK), April 21, 2020.

²¹² “German Social Democrats Tell Trump to Take U.S. Nukes Home,” *Politico*, May 3, 2020.

²¹³ “Germany to Buy Fighter Jets from Boeing and Airbus, Report Says,” *Bloomberg News* on-line, April 21, 2020.

²¹⁴ Interview, US2.

just moved from one country to another; if they are to disappear, then they should disappear everywhere.”

To smooth over the intra-coalition dispute, AKK elected to emphasize that no final decision had been taken or would be taken before 2022 – after the September 2021 Federal elections. Thus she characterized the current discussions as “preliminary.”²¹⁵ Indeed, in an end-of-year communication to his service, LtGen Ingo Gerhartz, Chief of Staff of the Luftwaffe, described the “spilt-buy” of F-18Fs and Eurofighters as a Defense Ministry “proposal” – and not a German government decision.²¹⁶

In an op-ed published in *Frankfurter Allgemeine Zeitung* on May 11, 2020, NATO SYG Stoltenberg took the unusual step of intervening in this debate. Stoltenberg argued that “Germany’s support for nuclear sharing is vital to protect peace and freedom.”²¹⁷ He also emphasized that only by remaining in DCA could Germany maintain its position as a decision-maker within the Alliance: “Politically this is significant. It means that *participating* allies, like Germany, make joint decisions on nuclear policy and planning, and maintain appropriate equipment” (emphasis added). Stoltenberg’s message was clear: Germany needed to pick a replacement for its Tornado fleet that would allow it to continue in the nuclear-delivery mission or else suffer the consequences of dropping into the ranks of the DCA non-participants – a sub-grouping within NATO that, by implication, does *not* enjoy co-decisional status on matters of nuclear policy and posture.

In June 2020, two foreign policy experts at Brookings, Peter Rough and Frank Rose, wrote that: “Germany’s participation in nuclear sharing is a bipartisan American objective of the highest order,” and warned Germans that “your decisions reverberate from Moscow to Washington; choose wisely.” A senior Trump official interviewed agreed, arguing:

Germany is not just any country. Its influence is high. I believe they want an alternative to the Tornado [but] Germany painted themselves into a corner, given the cost of the Advanced Eurofighter. That reflected their pique with Trump, [but] they are left with two lousy choices [F-18 or drop out of DCA].²¹⁸

In addition to this issue, which could be viewed as risking “disarmament by default” or “disarmament through obsolescence,” another development in

²¹⁵ “Germany Won’t Be Buying U.S. Planes to Replace Aging Tornados before 2020, Official Says,” *Stars and Strikes*, April 23, 2020.

²¹⁶ “German Air Force Chief: The Service is Undergoing Upgrades to Meet Future Challenges,” *Defense News (online)*, January 11, 2021.

²¹⁷ NATO website, “News: Op-Ed Article by NATO Secretary General Jens Stoltenberg, May 11, 2020.

²¹⁸ Interview, US2.

Germany has led some foreign policy analysts to question whether Germany can be counted upon to maintain its military leadership role among NATO allies with regard to NATO's nuclear posture.²¹⁹ In February 2019, German Chancellor Angela Merkel's coalition partner, the Social Democrats (SPD), established a commission to re-evaluate the SPD's position on foreign and security policies, including reassessing the continued merits of "nuclear sharing."²²⁰ Policy reviews are not uncommon in any government, but as Binnendijk and Townsend have pointed out, the SPD holds the key leadership positions in the Foreign Affairs and Finance Ministries in Merkel's grand coalition, it has resisted increased German defense spending and criticized the 2% Pledge, it tends to have a more benign view of Russian intentions, and many of its members oppose Germany's continued direct participation in NATO's DCA posture.²²¹

This includes the SPD Chairman, Ralf Stegner, and the party's Deputy Floor Leader and Spokesman on Defense in the Bundestag, Rolf Mutzenich.²²² In May 2020, Mutzenich called on the coalition to force the United States to remove the B61 bombs reported maintained at Buechel Air Base, saying in an interview with *Der Tagesspiegel*, "It's about time that Germany in the future excludes the deployment" of nuclear weapons on its territory.²²³ The SPD parliamentary leader argued that it was no more than a "long-held pious hope" that DCA participation gave Germany influence on nuclear strategy. As Flournoy and Townsend have observed, the SPD leader's comments had the result that "the nuclear issue is being debated outside the small circle of experts," and "some Germans are asking whether the nation is still comfortable with pilots flying nuclear missions that could make German cities vulnerable to nuclear retaliation."²²⁴

That said, the SPD appears increasingly on the decline in terms of its public support in Germany, including suffering its worst national showing ever in the May 26, 2019 European Parliament elections, dropping to 15.8%. Although the SPD has been a partner in the Federal government for nineteen of the last twenty-three years, some began to wonder how much longer the CDU-SPD grand coalition could hold.²²⁵ It now seems likely, though, that the coalition will hang together until the Federal elections in September. While Chancellor Merkel and AKK have remained steady in opposing Germany's withdrawal from its DCA

²¹⁹ Binnendijk and Townsend.

²²⁰ "In Germany, a Cold War Deal to Host U.S. Nuclear Weapons is Now in Question," Wall Street Journal (WSJ), February 12, 2019.

²²¹ Binnendijk and Townsend.

²²² WSJ.

²²³ Oliver Meier, *Arms Control Today*, June 2020.

²²⁴ Flournoy and Townsend.

²²⁵ "Germany's Political Establishment Looks Fragile After E.U. Vote," *New York Times*, May 28, 2019.

role, Merkel is retiring and the question remains which party or parties will govern Germany after that election.²²⁶

Clearly, a Green-SPD-FDP coalition, with the popular Greens leader Annalena Baerbock as Chancellor, would likely be the end of Germany's participation in this program. Members of the left wing of the Greens Party reacted harshly when a German Marshall Fund report on transatlantic relations under the new Biden presidency endorsed continued German participation in DCA as "the expression of remarkable degree of solidarity within the alliance because it symbolizes the willingness to share risks and burdens between allies."²²⁷ As of April 2021, the three opposition parties were polling at 28% (Greens), 13% (SPD) and 12% (FDP) – enough if maintained to form a so-called "traffic light" coalition.²²⁸ If the CDU – currently polling at 21% under its new candidate for Chancellor, Armin Laschet – should not recover sufficiently to claim authority to lead the next German government, DCA's future will clearly be problematic.

6.3.3. Assessment of Factors Pro and Con

6.3.3.1. Extra Cost

Little Effect: 0.25. The extra costs for Germany to remain in DCA as an active participant would appear to be relatively small. On the one hand, the DCA physical infrastructure and force protection personnel are already in place. However, the need to spend billions to acquire a bespoke fighter aircraft to replace Tornado in this mission and bear by itself the costs of modifying and certifying that aircraft for nuclear delivery of the B61 (i.e., on the order of \$300 million) would be significant. Although Germany announced on May 17, 2019 that it would increase its defense budget by €5 billion for the coming year, the largest one-year rise for that Ally since the end of the Cold War, that will only raise its defense spending to the level of 1.35% of its GDP – a level certain not to eliminate battles between the German armed services over how each "defense Euro" can best be spent.²²⁹ Nonetheless, the current annual defense budget

²²⁶ During an official visit to Washington in September 2019, AKK declared that any replacement aircraft for Germany would have to be able to provide "seamless" continuity with Tornado's capabilities for dual-capable missions. It should also be noted that on a November 22, 2019 visit to Hiroshima, the SPD Foreign Minister Heiko Maas, reiterated Germany's long-term goal of a world free of nuclear weapons, but he also said: "It's no use if nuclear weapons are just moved from one country to another; if they are to disappear, they should disappear everywhere." ["Heiko Maas Against Unilateral Removal of Nuclear Weapons from Germany," *Defense News online*, November 22, 2019].

²²⁷ "German Greens Go Nuclear Over Call to Renew NATO Vows," *Politico*, January 23, 2021. The Report, titled "More Ambition, Please! Toward a New Agreement between Germany and the United States," by the German Transatlanticists Group, can be accessed on the GMFUS website.

²²⁸ "Bundestagswahl/Sonntagsfrage Forza, RTL & n-TV, April 14, 2021.

²²⁹ "Germany Informs NATO of Huge Defense Budget Increase: Report," www.dw.com, May 17, 2019. Since 2014, German has raised its defense spending by 40%.

(\$56.074 billion) is already the largest in Europe except for the UK, and more than adequate to absorb these extra DCA costs.

6.3.3.2. Domestic Opposition to Nuclear Weapons

Significant Effect: 0.75. The vast majority of Germans are in favor of worldwide nuclear disarmament and the total abolition of nuclear weapons. According to the European Council on Foreign Relations, in 2017 two-thirds wanted the country to remove the B61 bombs open-source publications report are based on German soil, and more than 70% favored the NBT. This percentage roughly held three years later, when a Munich Security Conference report, “Germany 2020,” showed 66% of Germans believing that their country should forego nuclear deterrence completely.²³⁰ An ICAN poll claims that 61% of Germans are opposed to equipping new fighter aircraft for the Luftwaffe with nuclear-weapons capability.

That said, in Germany there is a strong divergence of views between the general public and the political establishment on these issues. Most political discussions take place behind the scenes and the government takes nuclear-related decisions independently of popular sentiment. To the extent, the CDU can have the final say, this has dictated that Germany continues to show solidarity on DCA (although during the CDU-FDP coalition, the CDU did yield to the junior partner’s wish to push, within NATO channels, to eliminate the B-61s). In the current CDU-SPD coalition, the CDU “vote” matters most, but the SPD is still strong enough to forestall a “final decision” on the F-18 DCA-equipped acquisition.

Germany is in the forefront of nations engaging in international fora to address arms control, disarmament and non-proliferation challenges. This stance is universally supported in Germany, from the CDU, the remnants of the FDP, the SPD and the Greens. Germany joined with the United States, UK, Russia and China in negotiating the JCPOA. It has been an active participant in the NPT Review conferences. Together with Finland, Germany chairs Working Group Three of the 42-nation “Creating an Environment for Nuclear Disarmament” (CEND) process – a follow-on multilateral initiative to the Obama Prague speech that the Trump Administration allowed to continue. Working Group Three is focused on “risk reduction – that is, how to address the challenges of deterrence, crisis management, accident avoidance, and the development and implementation of transparency and confidence-building measures during whatever period remains before us in which nuclear arsenals continue to exist.”²³¹ In this context, a senior allied official interviewed stressed the

²³⁰ Munich Security Conference, “Germany 2020 Special Edition,” MSC website, 2020.

²³¹ “Moving Forward with the CEND Initiative,” U.S. State Department: Remarks by Dr. Christopher Ashley Ford, Assistant Secretary, Bureau of International Security and Non-Proliferation, Wilton Park, UK, November 20, 2019, 3.

importance of New START extension, saying that loss of the treaty would have been “very negative” and would “not really [have] help[ed] the Government to convince the public not to question nuclear-sharing.”²³²

6.3.3.3. Balance of Threat

Little Effect: 0.25. Germany’s geography throughout the Cold War would have made it the front line for any conflict between NATO and the Warsaw Pact. Countless American Army personnel over the decades trained for a war that was presumed would begin with a major Soviet armored attack through the Fulda Gap. With German reunification after the Berlin Wall came down in 1989 and the subsequent dissolution of the Warsaw Pact, successive rounds of NATO enlargement have moved the “contact line” between NATO and Russia progressively further to the east. In the post-Crimea era, NATO’s threat assessment focuses not on the Fulda Gap, but rather on the “Suwalki Gap” – the narrow 70 kilometer “corridor” in northeastern Poland that divides Kaliningrad from Belarus, with the three Baltic states located rather perilously to the north. In this geostrategic environment, Germany’s “forward” location is less of a factor than before in its own assessments of the Russian threat.

But far more than spatial proximity is at play here. Germany, dating back to the era of Brandt’s *Ostpolitik*, has been the leading champion within the Alliance of efforts to engage first the USSR and then Russia diplomatically, economically, culturally and in sports to try to advance the objectives of détente. Nowhere is that policy more evident today than in the internal Alliance argument over Nordstream 2, a new gas pipeline under construction in the North Sea that will connect Russia with Germany and provide an alternative routing for energy supplies to the current pipeline that crosses Ukraine. Whereas Washington, Warsaw and other capitals within the Alliance see Nordstream 2 as creating Germany dependency on Russia at a time when Russia’s aggressive foreign policy, cyber attacks, and its domestic human rights crackdowns warrant increased isolation if not sanctions, Germany continues to defend the pipeline as a vehicle for maintaining a necessary dialogue with Putin. Further complicating the situation, the Chairman of the Board of Nordstream, and of its parent energy company, Rosneft, is former SPD Leader and FRG Chancellor Gerhard Schröder (1998-2005). In controversial remarks made in defense of Nordstream 2 in February 2021, German President Frank-Walter Steinmeier argued that Germany has a *historical* obligation to try to maintain good relations with Russia dating from WWII, saying: “For we Germans, there is another dimension” – 20 million

²³² Interview, A1.

Soviets dead. “That doesn’t justify any wrongdoing in Russian policy today,” said Steinmeier, “but we must not lose sight of the bigger picture.”²³³

The German CFR survey found that German security experts agree that the threat that Russia poses is only “existential” in that Russia has nuclear weapons.²³⁴ While Germany does not contest Russia’s military power and offensive capabilities, it does question whether Russia has the intention to use this strength.

6.3.3.4. Transatlantic Alignment

Significant effect: 0.75. As noted in Chapter 4, Germany is in the second grouping of the 11 allies under examination in this dissertation: the grouping that tends to be more worried that the United States can be trusted on nuclear policy and posture issues. They therefore tend to look to DCA to ensure they are seated at NATO’s nuclear “table” and hence in a position to try to directly influence and if necessary restrain U.S. leadership on Alliance nuclear questions.

The European CFR survey characterized Germany’s attitudes towards America as “conflicted.”²³⁵ On the one hand, as stated in the recent GMFUS Report on German-United States relations under President Biden, “No country has benefitted more from the United States’ role in Europe than Germany.”²³⁶ On the other hand, a 2018 poll by the Pew Research Center and the Körber Stiftung found that a majority of Germans described their country’s relationship with the United States as “bad.”²³⁷

Neither of these the two developments discussed here – the SPD demand to again review Germany’s participation in DCA or the uncertainty over the Tornado replacement as it bears on continuing in the DCA mission - taken alone in the normal context of post-war political relations between allies would necessarily be presumed to be prelude to a dramatic and consequential shift in Germany’s strategic alignment with the United States. But Germany’s attitude towards the Alliance itself was severely tested by the content and style of the Trump Administration’s sharp attacks on Germany’s foreign and security policies, ranging from its underperformance on the 2% of GDP goal for defense spending, its continued commitment to the Joint Comprehensive Program of Action with

²³³ Tony Barber, “Germany’s Bridges to Russia Split Open Europe,” *Financial Times*, February 16, 2021.

²³⁴ *ECFR “Eyes Wide Shut” Report*.

²³⁵ *Ibid.*

²³⁶ “More Ambition, Please: Toward a New Agreement between Germany and the United States,” German Transatlanticists Group, German Marshall Fund of the United States Policy Essay, January 2021, 2.

²³⁷ Leonid Bershidsky, “Why Germans Are Getting Fed Up with America,” *Bloomberg (on line)*, May 16, 2018.

Iran on nuclear matters, its continued development of the Nord Stream 2 oil pipeline with Russia, its dismay over the United States' inability to persuade Russia to reverse its violation of the Intermediate-Range Nuclear Forces Treaty (INF), and its support for EU positions at the heart of current European-American trade disputes, including the now-suspended (by Biden) U.S. tariffs on German automobile imports. As Christian Mölling, President of the German Council on Foreign Relations, has observed, "If it [i.e., the fighter replacement decision] were just technical, this would not be an issue, but right now, everything is political between Germany and the United States."²³⁸

Already by the summer of 2017, less than half a year into President Trump's presidency, Chancellor Merkel's resentment over his statements and Tweets questioning NATO's worth and criticizing her leadership led her to say to a crowd meeting in a Bavarian beer hall: "The times in which we could totally rely on others are to some extent over; we Europeans must really take our fate into our own hands."²³⁹ Two years later, in a widely-noted speech in February 2019 at the 55th Munich Security Conference, the Chancellor took clear exception to Trump's "America First" policies in a comprehensive, indeed passionate, defense of multilateralism, saying: "I am firmly convinced that it is better to put ourselves in one another's shoes, to look beyond our own interests and to see whether we can achieve win-win solutions together rather than to think we can solve everything ourselves."²⁴⁰ Under Chancellor Merkel's leadership, Germany has generally championed the European Union's embrace of "strategic autonomy" as an ultimate goal of the Union (while acknowledging the need for the foreseeable future to work with a NATO that remains under U.S. leadership).²⁴¹

In its recent "special edition" addressing Germany's critical foreign policy choices, the Munich Security Conference noted that "German policy-makers have repeatedly noted that we are experiencing the turn of an era in world politics, and that Europe must take its fate into its own hands, adding:

²³⁸ "Could US Politics Impact Germany's Next Atomic Warplane?"

²³⁹ "Merkel Tells Beer Tent Rally Europe Must Plot Its Own Course," Bloomberg News, May 28, 2017.

²⁴⁰ "Speech by Federal Chancellor Dr Angela Merkel on 16 February 2019 at the 55th Munich Security Conference," www.bundestkanzlerin.de/bkin-en/news/, February 28, 2019.

²⁴¹ See A Global Strategy for the European Union, EU External Action Service, June 19, 2017. See also: Andrei Kadomtsev, "Will Germany End Up as NATO's 'Weakest Link'?", Modern Diplomacy, April 25, 2019. For a what IISS calls a "reality check" on the EU's strategic autonomy ambitions, see: "Defending Europe: Scenario-Based Capability Requirements for NATO's European Members," IISS Report, Douglas Barrie, Ben Barry, Dr. Lucie Beraud-Sudreau, Henry Boyd, Nick Childs and Dr. Bastian Giergerich, April 2019. Examining a scenario set in the early 2020s in which a Russian attack had overrun Lithuania and parts of Poland after the United States had left NATO and no longer contributed militarily to the defense of Europe, the IISS study concludes that European NATO members would have to invest between \$288B and \$357B to fill the capability gaps generated by this scenario.

Germany now faces a fateful decision: It can throw its weight behind the 'European imperative,' i.e., strengthening Europe in order to defend German and European interests. Or Germany can cling to the status quo and prepare itself for EU-Europe to mutate into an 'appendage' dominated by other powers. ... What has been lacking so far is the will within the political class to embark on a new German foreign policy that allows a 'sovereign Europe' to emerge.²⁴²

As discussed in Chapter 4, this dissertation explores whether any of the 11 allies in question appear to "hedge their bets" with regard to relying on NATO, and hence U.S. extended nuclear deterrence, as the "supreme guarantee" of their security by championing the attainment of an "alternative" collective security arrangement – specifically, a future evolution of the Common Security and Defense Policy (CSDP) of the EU, and particularly its embryonic Permanent Structured Cooperation (PESCO) arrangements, that would allow Member States of the EU to look to that organization, vice NATO, for primacy in providing security for Europe. The dissertation concludes that the short answer is no, at least in terms of any near-term timeframe, but that in the longer run, this could change. None of the 11 is more pivotable, and perhaps more conflicted, on this issue than Germany.

As noted, on December 6, 2018, Chancellor Merkel rebuked President Trump's criticisms of Europe's defense self-sufficiency ambitions by declaring: "What is really important, if we look at the developments of the past year, is that we work on a vision of one day creating a real, true European army."²⁴³ Merkel warned that "only a stronger Europe is going to defend Europe," and added, "Europe must take our fate into our own hands if we want to protect our community." During the Trump presidency many former senior officials in the U.S. national security community became convinced that President Trump's leadership on NATO issues – or what they saw as the lack thereof – were increasingly threatening to drive the Europeans away from the transatlantic alliance. As the German Finance Minister, Olaf Scholz noted: "There is nothing like a bit of venom from The White House to unite Europe's 'progressive liberal' center. Europe will not be pushed around, and the present U.S. administration, if you will, has become a catalyst for an ever-closer European integration process."²⁴⁴

²⁴² MSC Special Editio, 12.

²⁴³ "Angela Merkel Calls for a 'Real, True European Army,'" *The Financial Examiner*, December 6, 2018.

²⁴⁴ "On Germany, a Politician Who Welcomes Trump's Bluster," *New York Times*, September 29, 2018, A8.

Yet despite these provocations, Germany's alignment with the United States has held. In an important speech in October 2020, AKK said that "illusions of European strategic autonomy must come to an end" because "for the foreseeable future" ... "Europeans will not be able to replace America's crucial role as a security provider."²⁴⁵ As previously noted, this prompted Macron to take the unusual step of directly criticizing the German Defense Minister by name. Although AKK called for more military effort within Europe to "act independently and effectively in the future when it matters," she insisted that "this is something entirely different from believing that a European army – however it might be set up and composed – can keep America completely out of Europe and replace America completely."²⁴⁶ In February 2021 AKK backed up here words with resources, announcing a record defense budget for 2021 of \$64 billion – a 3.2% increase over the previous year.²⁴⁷

This view is in general broadly supported within the German population. In its Transatlantic Trends 2020 poll, the German Marshall Fund found that 65% of Germans wanted the United States to be "somewhat" or "greatly" involved in the defense of Europe, compared to only 45% for having France play this role, while another poll in 2019, by the Körber Stiftung, put the percentage at 54%.²⁴⁸ This affinity with America broke down, though, when the polling dealt with nuclear matters. In its poll, the Körber Stiftung indicated that while 69% of Germans welcomed some form of a nuclear umbrella, only 22% were in favor of that being American while 40% preferred it to be provided by France and the UK.²⁴⁹

6.3.3.5. Ranking/Status within NATO

Full Effect: 1.0. As noted in Chapter 4, the primacy the United States attaches to P3 consultations within NATO does not sit well with Germany, which considers itself equivalent in status and ranking to the UK and France and has for years sought a permanent seat on the UNSC in its own right. As a result, P3 consultations are normally either folded into an "at 4" meeting, called the "Quad," to include Germany, or a "Quad" meeting is conducted immediately thereafter.

²⁴⁵ "German Defense Minister to Macron: EU Depends on U.S. Security Guarantee," *Politico*, November 17, 2020.

²⁴⁶ *Ibid.*

²⁴⁷ "Germany Reports Record €53 Billion in NATYO Defense Spending," *DW News*, February 7, 2021.

²⁴⁸ Ulrike Franke, "What Europe Thinks ... About Security and Defense," *Internationale Politik Quarterly, Issue #1/2021 (Winter 2021)*.

²⁴⁹ *Ibid.*

Within the Quad, Germany regards a range of factors as establishing its *bona fides* as a leader within the Alliance: contributions to operations, progress in moving towards the 2% goal, and with DCA, providing a role model for allies taking their responsibilities seriously. One allied official interviewed described the nuclear-sharing arrangements of NATO in terms of Alliance solidarity and the “epitome” of the fundamental linkage between Europe and the United States as partners in collective security.²⁵⁰ This official acknowledged that other DCA nations “are very much looking at Germany” and stressed the importance of Germany continuing in that role “without interruption.” For this official, Germany does not “use” DCA in a transactional manner; for example, as a “card to play” to try to offset its lower level of defense spending or as a means to try to leverage NATO on other issues. Rather, DCA for Germany is emblematic of its seriousness of purpose and its acceptance of obligations and risks and hence an element of its standing in the vanguard of Alliance nations. To be sure, Germany is in the Quad, but would the Quad continue to be used as a consultative mechanism if Germany were to abandon DCA?

“Con” Opting-In		“Pro” Opting-In	
	Factor Weight		Factor Weight
Extra Cost	0.25	Balance of Threat	.25
Domestic Opposition to Nuclear Weapons	1.0	Transatl. alignment	.75
		Ranking/Status within NATO	1.0
Total	1.25	total	2.0

Table 18: Germany: Summary of Independent Variable Interactions

²⁵⁰ Interview, A1.

6.4. GREECE

6.4.1. Nuclear-Sharing Antecedents

Greece emerged from World War II as an economically devastated nation rife with political instability. Although Stalin had agreed at Yalta to a Churchill proposal that Greece be regarded as “90% under British influence and 10% under Soviet,” by 1946 the Soviets were actively conspiring to install a communist government there as part of a broader strategy to dominate the Balkans and the eastern Mediterranean.²⁵¹ The growing Soviet threat to Greece and Turkey (where Stalin was demanding a Soviet military base guarding the Straits), together with a decision by the UK to halt its aid program for both countries, prompted President Truman on March 12, 1947 to announce the “Truman Doctrine.” In an address to a Joint Session of Congress, Truman declared that “it must be the policy of the United States to support free peoples who are resisting attempted subjugation by armed minorities or outside pressures” and asked Congress to authorize \$400 million in assistance to Greece and Turkey as well as the dispatch of “American military and civilian personnel” to both countries.²⁵² The Greek-Turkish Aid Act was signed into law by President Truman on May 22, 1947 following approval in the House by a margin of 287-107 and in the Senate of 67-23.²⁵³ Later, aid to both countries was folded into the broader Marshall Plan.

Greece, together with Turkey, were not deemed ready for membership when NATO was established in 1949. In part, this was because both nations were still in such dire economic and political shape. In addition, patient diplomacy was required with allies in western Europe and Scandinavia to persuade them that a Treaty which embraced the geographic denomination of the “North Atlantic” should apply in the eastern Mediterranean. But French advocacy of Italy being a Founding Member opened the door to admission of both Greece and Turkey in 1952. From the beginning, then, a pattern of equivalency was set in the Alliance for all matters involved Greece and Turkey.

As noted in Chapter 3, when the United States began deploying tactical nuclear weapons to augment its forces deployed in Europe, Greece and Turkey were among the first tranche of recipient nations. In 1955, the Army established a headquarters, the Southern European Task Force (SETF), in Italy dedicated to

²⁵¹ Dean Acheson, *Present at the Creation* (New York: W.W. Norton, 1969), 198.

²⁵² *Ibid.*, 222.

²⁵³ *Ibid.*, 225.

providing nuclear weapons support to the conventionally-armed forces of Italy, Greece and Turkey.²⁵⁴

When Eisenhower and Dulles formally offered U.S. “atomic stockpiles” and Jupiter IRBMs to NATO in 1957, Greece was ambivalent. On the one hand, Prime Minister Constantine Karamanlis acknowledged that “decisive measures” were needed in light of “the danger menacing the free world,” but he also argued that NATO must “fight Communism not only as a war machine but as an ideology” and hence the new nuclear firepower that was being offered by the United States should be limited to the “minimum essential” needed to augment the Alliance’s shield forces.²⁵⁵ In responding to the offer, he said, individual allies should “be governed by the principle that the sacrifices and obligations which they were called upon to undertake ... should be of a general and uniform character.” At a follow-up ministerial meeting two days later, Greek Foreign Minister Protopapadakis clarified that the Prime Minister had meant that if the IRBMs were to be accepted by allies, there must be a broad and general pattern of acceptance, and that Greece would reserve its position until it was more clear how many allies would participate.²⁵⁶

By 1959, though, Greece had agreed to accept the atomic stockpile and enter into negotiations on the IRBMs.²⁵⁷ These negotiations played out against the backdrop of deepening Greek anxiety about other NATO Member States’ perceived favoritism towards Turkey on the issue of Cyprus. Nonetheless, the Karamanlis government eventually “agreed in principle” to accept the IRBMs, but put off a final decision for such a number of months that SACEUR, General Norstad, was able to meet his basing needs with agreements with two other allies: Italy and Turkey.²⁵⁸ In addition, President Eisenhower came to believe that putting the missiles in Greece would provide the Soviet Union a pretext for putting offensive missiles in Cuba.²⁵⁹ Although Eisenhower did not order the talks with Greece ended, he did insist to the State Department and the JCS that they make sure that Greece was allowed to make a final decision “at a time of its own choosing.” After the Cuban Missile crisis ended in the fall of 1962, President Kennedy ordered the *Jupiters* removed from Turkey and Italy, and the Eisenhower IRBM initiative of 1957 became moot.

As Secretary of Defense McNamara steered NATO aware from multilateral “hardware solutions” in the 1960’s and towards institutional mechanism that

²⁵⁴ Ruiz Palmer, 28.

²⁵⁵ *NATO 1957 Summit*, 25.

²⁵⁶ *NATO Paris 18 Dec 1957 Ministerial*, 8.

²⁵⁷ Nash, 39.

²⁵⁸ *Ibid.*, 61.

²⁵⁹ *Ibid.*, 63.

ensure greater consultation and a larger allies voice in NATO nuclear policy and posture matters, Greece insisted that it be placed among the “first rank” of concerned states – and, in particular, that it hold a position equal in rank and status to Turkey. Greece, together with Turkey, was included in the select group of Defense Ministers that comprised the NATO “Special Committee” in 1965. When the NPG held its first meeting in Washington in early April 1967, Greece was absent - gripped by the profound internal turmoil that led just a few days later to the “Colonel’s Coup.” Nonetheless, the founding rules of the NPG provided that Greece and Turkey would “rotate” as members, taking turns in sharing a common seat.²⁶⁰

In 1974, Greece and Turkey went to war over Cyprus. As a precaution, the United States according to open sources removed its nuclear bombs from the Greek and Turkish fighter aircraft that had been standing QRA and put them in storage, prompting Greece to withdraw its forces from NATO’s integrated military command structure, as France had done under Charles de Gaulle in 1967.²⁶¹ Unlike France, though, Greece never seriously entertained the option of acquiring an independent nuclear weapons capability, although there was some debate on the matter in the early 1980s.²⁶² Greece rejoined the Alliance’s integrated military command in 1980. During that decade, the Socialist Party (PASOK) was in power and was officially in favor of exiting NATO. However, rather quickly it “acclimated” to the prerequisites of being in power and never initiated any such action and did not withdraw from DCA.²⁶³ To be sure, in 1981 the newly elected Greek government under PM Andreas Papandreou demanded B61 removal in context of negotiations with the United States over base rights and showed support for a Soviet/Warsaw Pact proposal for a Balkan “nuclear free zone.”²⁶⁴ Neither was acted on, though, and Greek A-7H Corsair II fighter bombers stood QRA loaded with U.S. nuclear bombs before eventually being replaced in the nuclear role with F-16s.

During the PNI period, vast numbers of U.S. nuclear weapons were withdrawn from NATO nations, including Greece, although, as noted, the nuclear gravity bombs were maintained, though at reduced levels. According to open sources, all U.S. nuclear bombs were reportedly removed from Araxos Air Base and transferred to Aviano Air Base, in Italy, with the storage vaults at Araxos

²⁶⁰ This arrangement became OBE when the NPG was expanded to include all NATO members.

²⁶¹ Kristensen, 25.

²⁶² Kosta Tsipis, “Greece and Nuclear Weapons,” in *South-Eastern Europe After Tito*, D. Carlton et.al. (eds.) (London: International School on Disarmament and Research on Conflict, Eighth Course, 1983), 174.

²⁶³ Interview, A1.

²⁶⁴ “Greece Says It Wants to Ban U.S. Nuclear Arms on its Soil,” *New York Times*, November 12, 1981, 12.

remaining in a low-readiness “caretaker” status.²⁶⁵ This drawdown was reportedly part of a broader NATO-wide initiative begun in 1999 under which over 200 B61s were reportedly withdrawn from air bases in seven NATO nations, with the storage vaults at a number of them, including Balıkesir and Murted Air Bases in Turkey, placed into caretaker status.²⁶⁶

In 2001, Greece significantly downgraded its participation in this mission: as noted, all U.S. nuclear bombs were reportedly removed from Araxos Air Base, and the vaults there were reportedly placed in a low-readiness “caretaker” status.²⁶⁷ Since vaults maintained in a “caretaker” status could be reactivated and occupied in a crisis or conflict, Greece has not abandoned the nuclear role altogether. In addition, according to one published report,²⁶⁸ Greece’s F-16C fighter aircraft, which replaced the A-7s starting in 2011, still have a certified nuclear weapons-delivery status under DCA, but at a lower operational readiness than all other DCA participants except Turkey. In this sense, then, Greece is still technically a member of the DCA “club,” and is treated accordingly in nuclear-related dealings at NATO, including participating in the HLG’s “Small Group” of DCA nations and attending working dinners that the U.S. Defense Advisor typically hosts for high-ranking officials from allied capitals in Brussels for meetings of the High Level Group.²⁶⁹

6.4.2. Situation Post-Crimea

The period since Russia’s 2014 aggression in Ukraine has coincided with increased tensions between the United States and Turkey over its purchase of the S-400 Russian anti-missile system, increased tension between Greece and Turkey over Turkish sovereignty claims and oil exploration rights in the eastern Mediterranean, and continued tensions between Turkey on the one hand and NATO and the EU on the other related to President Erdogan’s growing authoritarianism and internal repressions. These tensions have been magnified in large measure by his reaction to the attempted military coup against him in 2016.

In this context, Greece’s decision-making on NATO nuclear issues has in large measure reflected Greek calculations concerning its relative positioning vis-à-vis Turkey. Greece took particular note of Erdogan’s threat in 2019 to acquire an

²⁶⁵ *Ibid.*, 26.

²⁶⁶ Martin Butscher, Otfried Nassauer and Stephen Young, “Nuclear Futures: Western European Options for Nuclear Risk Reduction,” BASIC-BITS Research Report 98.5, Berlin Information Center for Transatlantic Security, May 1998.

²⁶⁷ *Ibid.*, 26. See also: “U.S. Has Removed All Nukes From Greece, Study Says,” *NTI*, February 10, 2005.

²⁶⁸ Lunn, 24.

²⁶⁹ Personal experience of the author as U.S. SECDEFREPEUR/DEFAD.

independent Turkish nuclear capability (see following case study on Turkey). One senior allied official interviewed acknowledged that for Greece this “is a concern.”²⁷⁰ Another senior allied official interviewed commented that Erdogan “doesn’t often say things he doesn’t mean,” although he questioned whether as a practical matter Turkey could actually use nuclear weapons against Greece.²⁷¹

As noted in the note on classification at the beginning of this dissertation, concern has focused in part on the security of U.S. nuclear bombs reportedly stored at Incirlik Air Base in Turkey, although President Trump assured the public that there was no such concern on his part. As tensions between the United States and Turkey over the S-400 acquisition grew, Congress not only took action to suspend Turkey from the F-35 procurement program, it approved targeted sanctions under CAATSA, which President Trump imposed in a mild form in December 2020.

Were Turkey for whatever reason to evict the United States from Incirlik, Greek experts and diplomats interviewed for this dissertation have suggested Greece would consider re-location of B61s reportedly stored there to an airbase in Greece, presumably Araxos, though that would be a “political issue” in Greek domestic politics.²⁷² As a senior Obama official interviewed noted: “If Turkey left DCA, Greece might well ‘stay in the room.’”²⁷³ A former SACEUR interviewed agreed, saying: “Greece would happily increase its presence and role, although nuclear weapons stored on Greek soil would be a challenge.”²⁷⁴

In October 2020, Greece reached agreement with the Trump Administration to buy six “used” F-35s that had been allocated for Turkey, as well as to reserve the right to purchase 12-18 more. The U.S. Ambassador in Athens, Geoffrey Pyatt, estimated that the infrastructure necessary for Greece to host and operate the F-35s could be in place by 2026.²⁷⁵ It is not known, at least publicly, whether the six F-35s in the first tranche for Greece had come off the production line at Ft. Worth with the digital interfaces for B-61 Mod 12 delivery installed. Whether so equipped or not, the six F-35s give Greece a ready option for maintaining a DCA status, whether at a “high” or “low” readiness level. For the present, though, Greece views maintaining its low readiness status within DCA as a “steady state.”²⁷⁶

²⁷⁰ Interview, A1.

²⁷¹ Interview, A1.

²⁷² Interview, A1.

²⁷³ Interview, US1.

²⁷⁴ Interview, N2.

²⁷⁵ “Envoy: US Ready to Discuss F-35 Jets Sale with Greece.” *Middle East Monitor*, March 4, 2021.

²⁷⁶ Interview, A1.

Greece has also recently taken pains to promote the strategic value of the U.S. Navy base at Souda Bay, Crete, and some observers suggested it could serve as an alternative to Incirlik as an anchor of NATO's position on the southern flank if NATO were evicted from Incirlik.²⁷⁷ During a September 2020 visit by Secretary of State Pompeo, Prime Minister Kyriakos Mitsotakis touted Souda Bay as "both the heart of Greece and the Mediterranean beat and also the strong heartbeat of U.S.-Greek cooperation."²⁷⁸ Much publicity was attached the decision of the Trump Administration, late in its 4-year term, to "homeport" a U.S. Navy logistics support ship there.

6.4.3. Assessment of Factors Pro and Con

6.4.3.1. Extra Cost:

Little Effect: 0.25. Greece already operates modern aircraft (F-16s), and accordingly to open sources has storage vaults at Araxos for nuclear bombs maintained in a caretaker status. If the F-35 acquisition goes through, they could replace the F-16s in this role. Assuming the six F-35s Greece intends to purchase that were previously destined for Turkey were equipped with nuclear interfaces when they came off the production line, the costs would be minimal for Greece to employ them for DCA. Even were Greece to decide to go to a higher DCA readiness status and B61 bombs were returned to Araxos, the incremental costs would be limited to retaining pilot proficiency in the nuclear-delivery mission and providing a battalion of soldiers for nuclear storage protection. That said, aggregate Greek defense spending annually is low (\$4.78 billion), thus there would be competition for these extra resources within the defense establishment. That would be somewhat offset, though, by Greece's high ranking in terms of defense spending as a percentage of GDP (2.58%).

6.4.3.2. Domestic Opposition to Nuclear Weapons

Moderate Effect: 0.50. The Greek public is largely anti-nuclear, but these attitudes are not particularly salient in terms of the public political agenda. Whether the governing coalition is center-right or center-left, the anti-nuclear agenda is simply too far down the priorities list to be determinative. A senior allied official interview described the anti-nuclear groups in Greece as "not particularly active" but posited that a proposal to move U.S. nuclear weapons to a base on Greece would put this issue "on the front burner."²⁷⁹ This official downplayed the importance of the NBT domestically, arguing that in the context

²⁷⁷ The Pentagon acted quickly to try to dampen such speculation, issuing a statement emphasizing that the United States "has no plans to end our presence at Incirlik Air Base."

²⁷⁸ "Greece Partners with U.S. to Gain Air Superiority Over Turkey," *Washington Examiner*, September 30, 2020.

²⁷⁹ Interview, A1.

of the Greek economic crisis, “people who were active domestically had other priorities.”

Greece has held the line in conformity with all other allies on the issue of the NTB – a factor taken into account in the 2018 ECFR survey, which labelled Greece “conformist” on nuclear weapons issues.²⁸⁰ Greece voted against the UNGA resolution that welcomed the adoption of this treaty and has supported NATO policy statements emphasizing the Alliance’s opposition. But, as long as Turkey is in DCA, Greek public opinion will generally favor their country maintaining an equal status.

6.4.3.3. Balance of Threat

Little Effect: 0.25. The European Council on Foreign Relations states unequivocally: “The current Greek government does not view Russia as a threat.”²⁸¹ Indeed, Greece, located geographically at some remove from Russia, is far more focused on the spatial proximity of its neighbor (and historic adversary) to the east, Turkey. It is this geography that is the main impetus and justification for its high level of defense spending within its GDP (2.58%). Greece is one of only 7 allies in compliance already with the 2% of GDP goal set at Wales, and “also strives to fulfill the 20% target by 2024, given the current financial restrictions and relevant international financial obligations.”²⁸²

Greece sees itself as the “southern bastion” of NATO and the EU, due to “its strategic position in south-eastern Europe and the Eastern Mediterranean, its close proximity to North Africa and the Middle East” – a region characterized by “turmoil, political tensions, conflict, migrant mobility and climate change” within which Greece’s relative geopolitical stability makes Greece “an Ally of important added value for the southern flank of NATO.”²⁸³ Indeed, since the Wales Summit, Greece has been in the forefront of NATO allies insisting that in addition to enhancing deterrence and defense capabilities facing east, the Alliance give equal weight to the threats and challenges emanating from the south, consistent with what it terms a “360 degree” policy.

That said, a senior allied official interviewed argued that post-Crimea, “there has been a greater recognition of the Russian threat in Greece, including with regard to its view of the value of non-strategic nuclear weapons in countering a Russian aggression.”²⁸⁴ This official noted in particular Russia’s military doctrine of “escalate to de-escalate” and cautioned that any “denuding Europe of B-61s in

²⁸⁰ ECFR “Eyes Wide Shut” Report.

²⁸¹ *Ibid.*

²⁸² Hellenic Republic Ministry of Foreign Affairs website, NATO, accessed February 1, 2021.

²⁸³ *Ibid.*

²⁸⁴ Interview, A1.

the face of that ... would be a very divisive issue in NATO.” This official doubted that the French or UK nuclear deterrents could compensate.

6.4.3.4. Transatlantic Alignment

Full Effect: 1.0. Greeks historically have blamed the United States for inadequate support on Cyprus. Greece has been strong advocate of the EU, although the debt crisis and the financial terms on which it was settled between Greece and the EU, the European Central Bank and the World Bank rankled many Greeks. Since then, though, Greece has looked to the EU as a bulwark of support in the face of Turkey’s resource exploration activities in the eastern Mediterranean. During the Trump era, Greece tended to resent what appeared to them as a “too cozy” relationship between the President and Erdogan, although it applauded Secretary Pompeo’s turn against Turkey late in that administration.

6.4.3.5. Ranking/Status within NATO

Full Effect: 1.0. Not being in the P3, Quad, or “Big Five” consultative groupings, Greece looks to the NPG/HLG as a measure of its co-equal rank and prestige with Turkey.

“Con” Opting-In		“Pro” Opting-In	
	Factor Weight		Factor Weight
Extra Cost	.25	Balance of Threat	.25
Domestic Opposition to nuclear weapons	.50	Transatl. Alignment	1.0
		Ranking/Status within NATO	1.0
Total	.75	total	2.25

Table 19: Greece: Summary of Independent Variable Interactions

6.5. ITALY

6.5.1. Nuclear-Sharing Antecedents

As a Founding Member of the Alliance, Italy has been engaged in NATO's nuclear policies and postures from the very beginning. As noted in Chapter 3, when the United States began deploying tactical nuclear weapons to augment its forces deployed in Europe in the mid-1950s, the Army established a headquarters, the Southern European Task Force (SETF), in Italy dedicated to providing nuclear weapons support to the conventionally-armed forces of that country, together with Greece and Turkey.²⁸⁵

In 1957, when Eisenhower and Dulles formally offered U.S. "atomic stockpiles" and Jupiter IRBMs to NATO, Italian Prime Minister, Christian Democrat Adone Zoli, was "all in." Although he emphasized that Italy was "convinced that a lasting solution to the threat of war could only be found in the framework of comprehensive and controlled disarmament," Zoli made clear that the "uncompromising attitude" on the part of the USSR made it "essential that NATO, while still remaining ready to discuss any constructive proposals, should make every effort not to lose the global military superiority it had enjoyed hitherto."²⁸⁶ In that regard, he welcomed Eisenhower's offers wholeheartedly and committed Italy to "make every possible effort, within the limits of [its] resources," to support them. At a follow-up ministerial meeting two days later, the Italian Defense Minister, Paolo Taviani, declared that it would be "pure folly" to exclude nuclear weapons from the defense of Western Europe and expressed confidence that the "question as to who should decide on the use of these weapons" could be solved independently.²⁸⁷ As far as Italy was concerned, he said, this responsibility "should rest with NATO and with the NATO Supreme Commands."

Washington welcomed this stance and in the negotiations that followed, U.S. officials listed Italy second only to France as a preferred IRBM deployment host.²⁸⁸ Unlike France, though, Italy had no ambitions concerning an independent nuclear capability. Rather, Italy's primary motivation for hosting the *Jupiters* was political: policy-makers wanted, first to elevate Italy's status within NATO, and second, to ensure influence with the United States.²⁸⁹ Nonetheless, domestic politics, and particularly the strong opposition of the

²⁸⁵ Ruiz Palmer, 28.

²⁸⁶ *NATO 1957 Summit*, 12.

²⁸⁷ *NATO Paris 18 Dec 1957 Ministerial*, 6.

²⁸⁸ Nash, 45.

²⁸⁹ Leopoldo Nuti, "Italy and the Nuclear Choices of the Atlantic Alliance, 1955-1963," in *Securing Peace in Europe, 1945-1962: Thoughts for the Post-Cold War Era*, Beatrice Heuser and Robert O'Neill (eds.) (New York: St. Martin's Press, 1992), 231-232.

Italian Communist Party, led the Zoli government, and subsequently the Fanfini government, to seek delay. Haggling over issues of price, location and U.S. assistance to Italy's conventional forces ensued, and then the Fanfini government collapsed in January 1959.²⁹⁰ Finally, in September 1959 agreement was reached. As summarized by Nash: "despite being moderate conservatives committed to the Western alliance (and keen on demonstrating that commitment), Italy's leaders nevertheless governed a sovereign state and had their own conception of national interests."²⁹¹ This conclusion – that when it comes to nuclear-sharing, it is not Alliance pressure or U.S. coercion that determines the outcome, but rather each ally's own sovereign and independent calculation of its interests, pro and con – is the principal hypothesis of this dissertation.

Throughout the 1960s and 1970s, Italy was a dependable partner in NATO's nuclear posture. Tactical nuclear weapons of all categories were reportedly deployed to equip Italian and U.S. forces stationed in the country, including Corporal missiles, Honest John rockets, atomic demolition mines (ADMs), 8-in artillery shells, Nike-Hercules anti-aircraft interceptors, and F-104 Starfighters. Italy even proposed that its aircraft carrier, the *Garibaldi*, be equipped to launch Polaris Medium-Range Ballistic Missiles.²⁹²

30 *Jupiter* IRBMs remained deployed at Giola del Colle, on the "heel" of Italy's southern "boot," from July 1961 until removed in April 1963 pursuant to the Cuban Missile crisis understandings reached between Kennedy and Khrushchev. Prime Minister Fanfini was generally amenable, though he worried that the loss of the *Jupiters* would diminish Italy's standing within NATO – a concern papered over by a U.S. commitment to "upgrade" the nuclear-tipped short-range ballistic missiles deployed in Italy from the Corporal to the Sergeant and to station a Polaris missile submarine in the Mediterranean as a "replacement."²⁹³ The French seized on the latter to protest that moving the deterrent to sea in no way constituted modernization and to cite the Kennedy administration's decision as validation for its own decision to maintain an independent nuclear deterrent, but NATO itself raised no objection.

Nuti agrees that during the Cold War, Italy "was one of the most steadfast NATO allies in hosting American nuclear weapons on its territory," citing a "complex mix of reasons," from "trying to ensure that the Italian government would be consulted in the event of a major crisis, to willingness to enhance the country's

²⁹⁰ *Ibid.*, 51.

²⁹¹ *Ibid.*, 52.

²⁹² *Ibid.*, 568.

²⁹³ *Ibid.*, 161-163.

profile inside any Western multilateral fora.”²⁹⁴ One former senior allied official interviewed put it this way:

In 1957, the issue was “black and white.” The Cold War and the Iron Curtain ran through Italy. Italy was a front-line state, and the choice at the time was clear: you were with the United States 100% or not. In a bipolar world, if your adversary has nukes, you have to have nukes.²⁹⁵

This official argues that “the nuclear possession option [by Italy] was only a fleeting moment in the 1960s.”²⁹⁶ Leopoldo Nuti agrees, arguing that Italy “rarely discussed the possibility of developing a national nuclear military option” and that when it did so, it was rejected.²⁹⁷ Nonetheless, as noted in Chapter 2, this did not stop Italy from pursuing a *joint* nuclear capability with France and Germany under the 1957-1958 “FIG” negotiations, until, that is, President De Gaulle shut this down in May, 1958. As a consequence, Italy firmly embraced “nuclear-sharing” arrangements as the next best solution.

Citing the writings of the influential Italian diplomat Roberto Gaja, who was Ambassador in Washington 1975-1977 and before that Secretary General of the Ministry of Foreign Affairs, Nuti argues, however, that once the USSR achieved strategic parity with the United States (as was vividly on display during the Cuban Missile crisis), extended nuclear deterrent became devalued in Italy’s view. As a consequence, he maintains, in the 1960s Italy came to view the nuclear-sharing arrangements it had so enthusiastically embraced as only transitory until such time as either NATO, the organization, or Europe, as a collective entity, could acquire its own nuclear force.²⁹⁸ As discussed in Chapter 2, both alternatives were firmly suppressed by the Kennedy and Johnson administrations, which decided instead to place the highest priority on non-proliferation, as codified in the NPT. In Nuti’s estimation, this paradigm shift in U.S. nuclear policy vis-à-vis its NATO allies “was vigorously contested by the Italian government (as well as by some other NATO allies) but eventually Italy was confronted with the momentous decision of either accepting the [NPT] or facing a major crisis with its most important ally.”²⁹⁹

Italy chose the former, though as noted in Chapter 2, it insisted that the NPT negotiating record make clear that a future EU would be legally entitled to act as

²⁹⁴ Nuti, 559.

²⁹⁵ Interview, A1.

²⁹⁶ *Ibid.*

²⁹⁷ Leopoldo Nuti, “Extended Deterrence and National Ambitions: Italy’s Nuclear Policy, 1955-1962,” (London: Rutledge, published online April 18, 2016), 560.

²⁹⁸ *Ibid.*, 573-575.

²⁹⁹ *Ibid.*, 576.

a Nuclear Weapons State were the other Member States to join France and the UK in a genuinely sovereign Union.

Italy also acted within this new paradigm to ensure it remained in the “front rank” of allies supporting NATO’s nuclear policies and posture. In 1967, it made sure that it was a Founding Member of the NPG. In 1979, it agreed to be a host nation for 112 GLCMs under the INF “double track” decision, although the Cossiga government fell as a result due to strong anti-nuclear attitudes within the nation and strong opposition from the Italian Communist Party. Following elections, though, the new government stayed the course with the planned deployments.³⁰⁰ A major consideration in this decision was to help Germany avoid “singularization.”³⁰¹ After the Cold War ended, it maintained its strong DCA role, originally with Tornado fighter-bombers and now with F-35s. According to open sources, Italy has the largest number of B61s and the largest number of active DCA bases on its soil among the participating NATO allies.³⁰²

6.5.2. Situation Post-Crimea

Since 2014, political volatility has been the rule, and not the exception, in Italy. Over these six years there have been four governments. In 2020, a coalition led by Prime Minister Giuseppe Conte, joining the center-left Democratic Party and the populist Five Star Movement, fell in January 2021. On February 2, 2021, President Sergio Mattarella invited the former head of the European Central Bank, Mario Draghi, to form a new government of national unity. The Five Star Movement has been openly hostile to the F-35. In March 2020, 50 Five Star parliamentarians submitted a resolution urging suspension of the F-35 program for one year to free up revenues needed to combat the COVID-19 crisis. The resolution was not adopted. As a coalition partner in the last government, it did not force the acquisition program’s cancellation. On February 11, 2021, it announced it would join Draghi’s coalition. The other party that has been pivotal in recent Italian domestic coalitions, the Northern League, is led by Matteo Salvini, who presents himself as a fan of Russia (and has been photographed wearing a Putin tee-shirt). The Northern League has also offered its support to Draghi in the new coalition. One senior NATO official interviewed believes that Salvini’s pro-Russia public stance is for show and the main interest of his party is on immigration issues.³⁰³

³⁰⁰ The stationing of GLCMs in Italy was to have occurred in NATO’s INF “second phase,” but the Reagan-Gorbachev agreement on a “global zero” outcome obviated the need for these deployments.

³⁰¹ Interview, A1.

³⁰² Kristiansen and Korda in their 2019 update put these numbers at 60-70 and 2.

³⁰³ Interview, N1.

Against this backdrop of political instability, production had to be scaled back at the Italian F-35 Final Assembly and Check Out (FACO) facility in Cameri due to government cut-backs in defense spending to such a degree (only 7-8 aircraft to be manufactured over 5 years) that the economies of scale are approaching a virtually untenable level.³⁰⁴ Whereas Italy had originally intended to purchase 95 F-35As for its Air Force and 30 F-35Bs for its two naval aircraft carriers, its order has been cut to 60 F-35As and 15 F-35Bs. At the same time, some elements of Italy's aerospace industry continue to argue that the country should scrap the F-35 in favor of exclusive procurement of the Eurofighter. Others argue that the technology represented by the F-35 is so advanced that it presents Italy with a binary choice: either you are in the program (and thus gain advantage, both technologically and in terms of industrial benefits), or you are out and risk being left behind.³⁰⁵

On May 28, 2020, the Italian Defense Minister in the last government, Lorenzo Guerini, who is a member of the Democratic Party, confirmed in an interview with Italian publication *Formiche* that the program would continue, arguing that the FACO facility at Cameri Air Base "offers very significant economic returns to our nation."³⁰⁶ One former SACEUR interviewed agrees, saying:

I do think Italy can stay in the game. The Lockheed-Martin purchases [from Italy] are exceeding its capacity for the supply chain and spare parts. International sales of the F-35 mean Cameri goes up in activity. Turkey being banned may reinforce that trend. Italy is more secure than we think ... but they will be the largest loser if all Italian jobs at Cameri are lost.³⁰⁷

Meanwhile, the Italian Air Force has been putting those F-35s already produced to good use. In June 2020, Italy assumed lead responsibility for NATO's Icelandic Air Policing mission, deploying six F-35s that had been assembled at Cameri to Keflavik configured for air defense operations. On July 3, the first real-world scramble by any F-35 aircraft occurred when 2 of the Italian F-35s standing alert intercepted 3 Russian Tupolev Tu-142 "Bear" long-range marine patrol aircraft and accompanying escorts that had approached Iceland's sovereign airspace.³⁰⁸

It remains to be seen whether the new unity government will remain committed to the F-35, including in its nuclear-delivery configuration. However, two Italian

³⁰⁴ "The Italian F-35 Program Will Be Slowed Down," *BulgarianMilitary.com*, November 12, 2018.

³⁰⁵ Interview, A1.

³⁰⁶ "Italy Defense Minister Commits to F-35 After Calls to Suspend Program," *Defense News*, May 27, 2020.

³⁰⁷ Interview, N2.

³⁰⁸ "Italy Demonstrates F-35 Air Defender Credentials on NATO ops," *Janes Defense On-line*, July 9, 2020.

scholars at the Institute of International Affairs (IAI), Professor Marrone and Dr. Silvestri, have recently argued that there is a “broad political consensus: in Italy in support of DCA, “as proved by the strong continuity of Italy’s nuclear policy despite frequent changes in Italian governments.”³⁰⁹ Indeed, they point out that during the post-Cold war period, “the U.S. military presence in Italy has increased: American bases, including those hosting tactical nuclear weapons, have been modernized, upgraded, and in some cases enlarged.”³¹⁰

6.5.3. Assessment of Factors Pro and Con

6.5.3.1. Extra Cost:

Little Effect: 0.25. The DCA infrastructure and nuclear-wired F-35s already exist. Italy’s aggregate annual defense spending (\$24.853) helps it absorb these costs, although it ranks low on its defense spending/GDP ratio (1.43%).

6.5.3.2. Domestic Opposition to Nuclear Weapons

Moderate Effect: 0.50. Nuclear weapons are generally very unpopular in Italy. A 2018 poll conducted by ICAN is the basis for the NGO claims that 59% of Italians do not favor equipping Italy’s F-35s for nuclear-weapons delivery and 70% favor their country signing the NBT.³¹¹ The Vatican under Pope Francis signed and ratified the NBT, and in his January 2018 “state of the world” address, he reiterated his call for a total ban on nuclear weapons.³¹² To some degree, at least, the position of the Catholic Church on nuclear deterrence and nuclear arms control issues matters to Italians.

That said, most Italians tend to think of nuclear weapons as out-of-sight/out-of-mind, deferring to political elites for decision-making. One senior allied official interview said that while the F-35 has been subject to public debate in Italy, it has focused more on the overall cost of the acquisition and less on its nuclear role.³¹³ As the European Council on Foreign Relations has explained, the topic of nuclear

³⁰⁹ “(Nuclear) Sharing is Caring: European Views on NATO Nuclear Deterrence and the German Nuclear Sharing Debate,” *German Council on Foreign Relations (DGAP) Report No. 10*, June 2020, 9.

³¹⁰ *Ibid.*

³¹¹ ICAN website.

³¹² “In ‘State of the World’ Speech Pope Francis Pushed for Nuclear Ban,” *World Religious News*, January 9, 2018, p. 1. In a November 10, 2017 address to participants at an international symposium he convened at the Vatican to explore “prospects for a world free of nuclear weapons and for integral disarmament,” the Pope had implored “civil society, states, international organizations, churches, academies, and groups of experts” to reject a “certain pessimism” in this undertaking, emphasizing that “the threat of their use, as well as their very possession. Is to be firmly condemned.” (“Pope to Disarmament Conference: World Without Nuclear Weapons Not Impossible,” *Vatican News*, November 10, 2017).

³¹³ Interview, A1.

deterrence “has remained under the quasi-exclusive competence of the military and has not been subject to public debate.”³¹⁴ Indeed, the ECFR, which categorizes Italy as a “pragmatist” ally on nuclear weapons matters, points out that according to a 2006 survey, only one-third of Italians were even aware that nuclear weapons were on Italian soil.³¹⁵ This official expressed confidence that the F-35 acquisition is “surviving” the initial public debate and that it “is beginning to understand that it is not only good for Italy’s military and its industry but also for Italy politically.”³¹⁶

Italy did *not* support Germany, Belgium, Netherlands, and others during the DDPR drafting negotiations in calling for B61 withdrawal, although its political leadership tends to regard these weapons as archaic to contemporary realities. How is this explained? In the view of one well-regarded observer of Italian nuclear politics, Paolo Foradori, the answer to Italy’s nuclear “ambivalence” lies in its prioritization of Alliance cohesion:

Italy, as a mid-level power, is fully aware that its foreign and security interests are best preserved within a multilateral framework and regards NATO as the fundamental provider of its defense. The objective of TNW abolition is therefore viewed by many representatives of the Italian foreign and security policy elite with a degree of wariness and is certainly deemed to be insufficiently important to merit the risk of causing distress among NATO allies.³¹⁷

In this context, it is not surprising, then, that at the pivotal Foreign Ministers meeting at Tallinn in 2010, when U.S. Secretary of States Clinton endorsed retention of the forward-deployed DCA posture, Italy’s Foreign Minister, Franco Frattini offered his support, arguing:

The issue of nuclear weapons has to be decided by all NATO members, with no unilateral sprints ahead. ... We all want a world free of nuclear weapons, but we must make decisions together.³¹⁸

This attitude may also explain why in the Open Letter supporting the NBT signed in September 2020 by 56 former presidents, prime ministers, foreign ministers, and defense ministers from 20 NATO member states, there was only one signature by an Italian – former Prime Minister Enrico Letta.

³¹⁴ ECFR “*Eyes Wide Shut*” Report.

³¹⁵ *Ibid.*

³¹⁶ Interview, A1.

³¹⁷ Paolo Foradori, “Italy,” In *Tactical Nuclear Weapons and Euro-Atlantic Security*, Paolo Foradori, ed. (London: Routledge, 2013), 67.

³¹⁸ Italian MFA Press Release, April 23, 2010.

6.5.3.3. Balance of Threat

Little Effect: 0.25. A year before Crimea's annexation, Paolo Foradori argued that "Russia is no longer perceived as an adversary," and the main threats to Italian security are seen as "terrorism, low-intensity and asymmetric warfare, regional conflicts, transnational crime, piracy, cyber warfare, migration pressures, energy shortages, contagious diseases, and natural and man-made disasters."³¹⁹ The European CFR agrees, finding in its 2018 assessment that based on the Ministry of Defense's 2016 White Book that articulated the nation's major strategic challenges:

Italy does not think of Russia as a nuclear threat. On the contrary, Italy believes that nuclear tensions with Russia could be defused through dialogue and confidence-building measures. In this regard, Rome aims to enhance forms of cooperation with Moscow to tackle global issues jointly.

Italy takes particular pride that the NATO Russia Council was created as an outgrowth of a conference in Italy convened by Prime Minister Silvio Berlusconi. Although Italy has joined the consensus at NATO behind the political, conventional and nuclear responses to Russia's aggression in Ukraine, including volunteering to take its turn in providing a rapid reinforcement brigade as part of the VJTF program, its main focus is on "southern flank." Geographically removed from Russia, Italy does not see Russia as a hostile neighbor. In short, Italy's priorities in terms of countering threats continue to reflect those that Foradori enumerated in 2013.

6.5.3.4. Transatlantic Alignment

Full Effect: 1.0. Italy is in the vanguard of those EU Member States pressing for a broader and deeper Union, including further steps on CSDP. As the Italian Defense Minister wrote recently in an op-ed: "Italy is taking a leading role, as it always has, in the integration process because it sees Europe as a strategic choice and a multiplier of resources to tackle future challenges."³²⁰ DCA is seen as a "check" of sorts on otherwise-unilateral U.S. decision-making on NATO nuclear policy and posture issues. One former allied official interviewed expressed this view as follows: "Italy thinks it is in its interest to maintain this participation. It means you feel more comfortable concerning the U.S. nuclear umbrella. You never know what could make a difference in a crisis."³²¹ That said, Italy is under no illusions that the EU has already achieved strategic

³¹⁹ Foradori, 62-63.

³²⁰ Lorenzo Guerni, "Italy's Defense Minister: The Future of European Defense Must Involve the United States," www.defensenews.com/outlook, January 11, 2021.

³²¹ Interview, A1.

autonomy. In the same op-ed, the Defense Minister stated: “Italy does not see strategic autonomy as a go-it-alone policy ... today, just as in the past, the United States must stay connected to Europe and to NATO at the center of a reciprocal security and defense relationship.”³²²

6.5.3.5. Ranking/Status with NATO

Full Effect: 1.0. As noted in Chapter 5, Italy resents its exclusion from consultations under the P3 and Quad formats and presses hard for inclusion in a grouping informally known as the “Big 5.” As one former Allied official interviewed noted, defining a special category such as this “is part of the mindset if you want to preserve your position within NATO.”³²³ This official drew a parallel with the G-7, saying “you hang on to anything that gives you status.” One senior allied official interviewed contended that being an active DCA participant was “very positive” for Italy within NATO.³²⁴ This official described the F-35 acquisition as “bringing increased respect to Italy in NATO,” and “useful” to reference when discussions of its low performance (1.2%) with regard to the 2% goal arise. “Yes,” this official said, the “3 C’s (cash, capabilities and contributions) count,” but “F-35s count and nuclear counts” as well.

“Con” Opting-In		“Pro” Opting-In	
	Factor Weight		Factor Weight
Extra Cost	.25	Balance of Threat	.25
Domestic Opposition to nuclear weapons	.50	Transatl. Alignment	1.0
		Ranking/Status in NATO	1.0
Total	1.0	total	2.25

Table 20: Italy: Summary of Independent Variable Interactions

³²² *Ibid.*

³²³ Interview, A1.

³²⁴ *Ibid.*

6.6. NETHERLANDS

6.6.1. Nuclear-Sharing Antecedents

As a Founding Member of NATO, the Netherlands, like Italy and Belgium, has always been in the forefront of allies participating in Alliance nuclear-sharing arrangements. U.S. tactical nuclear weapons were reportedly widely deployed in the country during the 1950s, including nuclear artillery shells for the 8-inch army howitzers, bombs for the F-105 and F-104 fighter-bombers, nuclear depth charges, Corporal, Honest John, and Lance battlefield ballistic missiles, ADMs, and warheads for the Nike-Hercules anti-aircraft interceptor batteries.³²⁵ The Dutch were particularly outspoken at a December 1956 NAC in favor of delegating authority to SACEUR to use them³²⁶

When Eisenhower presented the U.S. proposals on the atomic stockpile and IRBMs at the 1957 Paris Summit, however, Dutch Prime Minister Willem Drees virtually ignored the offer, devoting the lion's share of his intervention to the deteriorating situation in then-Dutch Indonesia and only, at the very end, committing his country "to try to find a solution to the problem of the production and distribution of new weapons."³²⁷ At the ministerial-level follow-up meeting two days later, though, where the Final Communiqué of the Summit was agreed, Joseph Luns, Dutch Foreign Minister and later NATO Secretary General, could not have been more clear. Luns stated that "as far as his country was concerned, it was willing to receive the new weapons and it was also grateful to the United States for having offered them."³²⁸ By the spring of 1959, the Netherlands had reached agreement with the United States on bilateral accords governing the establishment on its soil of elements of the NATO nuclear stockpile.³²⁹ It was, however, excluded from the IRBM negotiations by SACEUR on account of range issues: the Netherlands was simply too far west for the *Jupiters* to reach Soviet targets if based in the country.

In the 1960s the Netherlands was an active participant in the drawn-out and ultimately unsuccessful effort to identify a politically and militarily acceptable MLF. When the Johnson Administration pivoted to enhanced consultations instead, The Netherlands was quick to enlist as an original member of Secretary McNamara's "Special Group" of Defense Ministers and the NPG that eventually

³²⁵ Karel Koster, "The Netherlands," in *Tactical Nuclear Weapons and Euro-Atlantic Security*, Paolo Foradori (ed.) (London: Routledge, 2013), 74.

³²⁶ Trachtenberg, 176.

³²⁷ *NATO 1957 Summit*, 11-12.

³²⁸ *NATO 18 Dec 1957 Paris Ministerial*, 8.

³²⁹ Nash, 39.

emerged. During this period, the NATO SYG was Dutch (Dirk Stikker) and played key role.

The INF era was particularly fraught with domestic and international turmoil for the Netherlands.³³⁰ At the pivotal Ministerial in Brussels when NATO decided on the “double track” strategy to counter the Soviet SS-20 deployments, the Netherlands stepped up and pledged to accept 48 of the 464 Tomahawk GLCMs slated to be deployed in Western Europe. To win support of opponents, NATO agreed to offset the deployments by reducing other tactical nuclear weapons by 1000 and to try to engage the USSR in negotiations on a political solution. The Netherlands government led by Prime Minister Dries Van Agt had, however, underestimated the severity of anti-nuclear attitudes among Dutch society, and he had to attach a caveat to his commitment: no final decision on accepting the missiles before December 1981, by which time The Netherlands hoped that the arms control track may have eliminated the need for the deployment track.

It was not to be. The INF talks quickly bogged down over President Reagan’s zero/zero proposal, and by 1983 the Soviets had walked out. Playing for time, the Netherlands continued to defer a decision, pushing it off until December 1985. In the intervening years, the Dutch protest movement, led by the Interchurch Peace Council (IKV), blossomed. Two massive demonstrations in 1981 and 1983 – the latter involving 550,000 on the streets of The Hague – dramatically underscored the strength of the opposition. In November 1985, the Prime Minister, Ruud Lubbers, who had been elected the year before, was presented with an anti-GLCM petition signed by 3.7 million citizens.

In an attempt to deflect the rising anger, Lubbers in June 1984 had won approval in the Binnenhof for a Dutch-only “double-track” variant: The Netherlands would deploy the 48 GLCMs, but only if by November 1985 the Soviet Union had deployed more than 378 SS-20s.³³¹ After the USSR failed to meet this condition, Lubbers vowed to go forward, but as a sweetener he committed to eliminating two Dutch nuclear roles: nuclear ASW depth charges for its *Orion* maritime patrol aircraft and nuclear gravity bombs for its F-16s. the latter led to

³³⁰ The brief history that follows is taken from the excellent narrative provided in Annex II of the 2019 AIV Report.

³³¹ The author of this dissertation played a role in the inspiration for this *quid pro quo* strategy. In early 1984, as the Dutch government struggled to find a way to hold its place in the NATO INF double-track consensus, the Dutch Defense Minister, Dr. Job de Ruiter, visited Washington. Knowing me from my tenure as Staff Director of the NATO Parliamentary Assembly Defense Committee in Brussels in 1979-1980 during the early days of the INF saga, and knowing my officemate on the SFRC staff, Deputy Staff Director Hans Binnendijk, who was born in The Netherlands, Dr. de Ruiter made a visit to us in our Senate office. In the course of a 2-hour “brainstorming” session, during which all 3 of us smoked cigars nearly continuously in a closed room, we hatched the idea of tying the Dutch GLCM deployment to the Soviets honoring an arms control ceiling “ultimatum.”

significant complaints from across the Alliance, since the air-delivered nuclear deterrent was seen as particularly flexible and best suited for maintaining escalation control in a conflict. In this form, though, deployment of the 48 GLMs was scheduled for mid-1988. Fortunately for the Netherlands, the INF talks gained momentum and the Treaty was signed by Reagan and Gorbachev on December 8, 1987, obviating the need for any further INF deployments and requiring the elimination of all GLCMs, PIRs and SS-20s already deployed. Lubbers then reversed his decision on eliminating the *Orion* and F-16 nuclear roles, and the Dutch F-16s have continued to participate in DCA ever since.

Since the end of the Cold War in 1991, Dutch participation in NATO's nuclear posture has remained a very contested space. Although the PNIs removed the *Orion* nuclear ASW charges, the Lance missile warheads and the nuclear shells for the Army's 8-inch howitzers, the F-16 DCA mission remained and the reported stationing of B61 bombs at Volkel Air Base became the focus of continued civil society and political parties' protest. This included the establishment of a "peace camp" outside the base's front gate, from which anti-nuclear protestors from time to time penetrated the perimeters of the facility.

Nonetheless, the ICJ opinion – coming from a respected international court headquartered in their own capital – had a major influence on public opinion. According to a 2013 poll by the Netherlands Red Cross, 85% of the Dutch people favored a total ban on nuclear weapons.³³² This view has been embraced by a clear majority of parliamentarians across the wide spectrum of political parties. As the 2019 AIV Report notes, between 2010 and 2018, the Binnenhof, supported by NGOs and civil society campaigns, passed a series of resolutions on nuclear issues, including motions urging the government to terminate the nuclear-sharing arrangements within NATO, remove the B61s from Europe, reject the "neither confirm nor deny" policy in favor of full transparency, and to join in the negotiations on the NBT.³³³

This view is also supported by senior governmental officials, both in office and in retirement. After President Obama's Prague speech in 2009, Dutch Foreign Minister Maxime Verhagen joined German Foreign Minister Guido Westerwelle in urging NATO to agree in the DDPR to the removal of the remaining U.S. nuclear weapons from European soil. In April and May 2012, Labor MP Frans Timmerman, who became Foreign Minister in 2013 (and is now Vice President of

³³² ECFR "Eyes Wide Shut" Report.

³³³ AIV Report, 20. See: Parliamentary Paper 33 694, no. 31; Parliamentary Paper 33 694, no. 30; Parliamentary Paper 33 694, no. 24; Parliamentary Paper 33 694, no. 15; Parliamentary Paper 34 419, no. 12; Parliamentary Paper 34 419, no. 11; Parliamentary Paper 34 419, no. 10; Parliamentary Paper 34 419, no. 9; Parliamentary Paper 33 783, no. 19; Parliamentary Paper 33 783, no. 18; Parliamentary Paper 33 783, no. 10; Parliamentary Paper 33736, no. 14; Parliamentary Paper 33 400V, no. 65; and Parliamentary Paper 32 123V, no. 86. 33 783.

the European Commission), supported motions in the Binnenhof calling on the government to not buy new nuclear-capable aircraft.³³⁴ And in June 2013, former center-right Prime Minister Ruud Lubbers created a controversy when he said in a documentary for *National Geographic* that 22 B-61s were stored at Volkel and called their continued deployment “silly” and “an absolutely pointless part of a tradition in military thinking.”³³⁵

On November 6, 2013, the Binnenhof also adopted a resolution sponsored by MP Jasper van Dijk declaring that the Dutch F-16 aircraft replacement should not be capable of delivering nuclear bombs; i.e., a motion seeking to prohibit the government from adapting the Dutch fighters to carry the B-61 once the software installation modification “kits” are ready in the early 2020s.³³⁶ In a January 14, 2014 letter of reply, the Dutch Foreign and Defense Ministers, citing the Netherlands’ responsibilities within NATO, confirmed that the Dutch F-16s currently have a nuclear role under DCA and will continue to do so until replaced by the F-35, sometime in 2024 or thereafter.³³⁷ They also made clear that the Government does not intend “to be tied to the standpoint set out in the motion.”³³⁸ That said, the Ministers insisted that the Government has taken no decision on the F-35 nuclear modification, arguing that it need not be taken before 2024. By then it hopes the United States and Russia will have made progress in arms control sufficient to allow the withdrawal of all B-61 bombs from Western Europe.

This position seems rather hopeful now in light of geostrategic developments since 2014, including the demise of the Intermediate Nuclear Forces Treaty (INF) in 2019 and the on-going across-the-board modernization of Russian non-strategic nuclear systems. As a senior Obama official interviewed quipped: “I never thought that arms control was going to solve everything; the Netherlands will have to find a new argument.”³³⁹ The Ministers’ letter is, however, fully consistent with a pattern of “playing for time” embraced by past Dutch governments as they have wrestled with reconciling their obligations to and ambitions within NATO and their nuclear non-proliferation and disarmament

³³⁴ Wilbert van der Zeijden, “A Dutch Revolt? The Salience of the Nonstrategic Nuclear Weapons Issue in Dutch Politics,” *European Security*, Vol. 23, Issue 1, 47.

³³⁵ “US Nuclear Bombs ‘Based in Netherlands’ – ex-Dutch PM Lubbers,” *BBC News*, June 10, 2013.

³³⁶ *AIV Report*, 63.

³³⁷ Parliamentary Paper 33 783, no. 5. See also: “Ministers Ignore Vote. JSF Jet Fighter Could Carry Nuclear Weapons,” *Dutch News*, <https://dutchnews.nl>, January 14, 2014, and “Dutch Leaders: F-35 Aircraft May Have Nuclear Role, Despite Controversy,” Nuclear Threat Initiative, May 15, 2019, available at <https://www.nti.org/gsn/article/dutch-leaders-possible-nuclear-role>.

³³⁸ *Ibid.*

³³⁹ Interview, US1.

objectives.³⁴⁰ Whether the Biden Administration will, in the course of negotiating a new NATO Strategic Concept, propose the *unilateral* withdrawal of all B-61s from Europe and the termination of the DCA nuclear task remains, of course, to be seen. Nonetheless, one allied official interviewed remained confident that the F-35 in the nuclear role will, in the end, be supported by a majority in the parliament.³⁴¹

6.6.2. Situation Post-Crimea

In January 2019, the Royal Netherlands Air Force received its first operational F-35A. Deliveries will continue through 2023, with production of most coming from the Italian FACO at Cameri. Full Operational Capability is expected in 2024. In July 2019, Defense Minister Ank Bijleveld announced that The Netherlands would purchase an additional 8 or 9 aircraft, with a total buy now planned for 46 aircraft.³⁴² According to the March 2018 Letter from Foreign Minister Blok and Defense Minister Bijleveld-Schouter requesting the AIV study on the future role of nuclear weapons in the Netherlands' national security strategy, "the F-35s ordered to replace the F-16s are intended to take over" the F-16s' nuclear mission, a step that the AIV Report endorses.³⁴³

6.6.3. Assessment of Factors Pro and Con

6.6.3.1. Extra Cost:

Little Effect: 0.25. For the Dutch, the extra costs of making its F-35 fleet nuclear-capable would be minimal. The reported B-61 infrastructure and host nation protection forces are already in place, the DCA pilots are already nuclear-delivery certified, and the aircraft are already being purchased and the cost of making them B-61 compatible would be shared with other F-35 equipped NATO DCA allies. Although aggregate annual Dutch defense spending is relatively low (\$12.067 billion), as is its defense spending/GDP ratio (1.48%), these DCA extra costs should be manageable.

³⁴⁰ Emmanuelle Maitre, for one, deems the Dutch government's contention that the issue could be overtaken and made moot by arms control developments "unconvincing" (Emmanuelle Maitre, 5-6). It is also not evident whether the Netherlands can wait until 2024 to decide whether to proceed with the "nuclear wiring" modification. As noted, the United States expects the F-35 International Partners, including the Netherlands, to pick up roughly one-third of the \$10.8 billion developmental costs for the C2D2 phase, which began in Fiscal Year 2018. For those allies designated for DCA missions, this includes installing on the aircraft coming off the Lockheed-Martin F-35 production line in Fort Worth the "digital interface" required for delivery of the new B-61 Mod 12 bomb with its maneuverable tail fins. (U.S. GAO Report 18-456).

³⁴¹ Interview, A1.

³⁴² David Axe, "More F-35s are Headed to this NATO Member," *The National Interest*, July 21, 2019. See also: CRS F-35 Report (Updated), 7.

³⁴³ *AIV Report*, Annex 1, 1.

6.6.3.2. Domestic Opposition to Nuclear Weapons:

Moderate Effect: 0.50. NGOs, churches, and civil society in the Netherlands remain predominantly anti-nuclear in outlook. On the other hand, the most recent ICAN polling indicates that among the four EU member states that are in the DCA mission (Italy, Belgium, Germany and the Netherlands), opposition to equipping those aircraft for B-61 delivery is lowest among the Dutch (only 45% opposed, versus 66% in Italy). This helps explain why the ECFR categorized the Netherlands as “conflicted” on these issues.³⁴⁴

Nonetheless, Ekaterina Shirobokova has argued that domestic political pressure and political traditions born in the mass protests of the INF era had “significant effects” on the decision of the Dutch – alone among NATO allies – to participate in the negotiations within the UN on the NTB.³⁴⁵ Although the Netherlands voted “no” (alone, among all states in the negotiations) on the grounds that nuclear disarmament cannot be unilateral but must be negotiated with Russia, some NATO allies worried that its participation in the process gave legitimacy to this new treaty. One former U.S. official described the Netherlands as the “shakiest” and “most problematic” of all DCA participants.³⁴⁶ In part, this reflects the delicate balance reached in most governing multi-party coalitions in the Netherlands, where a single party in that coalition has outsized influence on any issue to which it passionately subscribes.

This helps explain why the Netherlands is extremely active in international fora addressing arms control disarmament, and non-proliferation challenges. It has been an active participant in the NPT Review conferences. Together with Morocco, the Netherlands co-chairs CEND Working Group One, which is focused on “how to ameliorate conditions in the security environment so as to shape the incentives felt by national decision-makers in more disarmament-conducive ways – that is, to lessen any perceived need to acquire or retain nuclear weapons, and to increase the perceived value of eliminating them.”³⁴⁷ One allied official interviewed defended DCA participation in terms of the role such participation plays in lending credibility to smaller nations that are pushing for more progress on this agenda, explaining that the Netherlands is “focused very much on the ‘dual-track’ and being at the ‘small table’ [i.e., the NPG/HLG] is the best way to try to achieve that.”³⁴⁸

³⁴⁴ ECFR “Eyes Wide Shut” Report.

³⁴⁵ Ekaterina Shirobokova, “The Netherlands and the Prohibition of Nuclear Weapons,” *The Nonproliferation Review*, Vol. 25, 2018, Issue 1-2 (Special Focus: Treaty on the Prohibition of Nuclear Weapons), published online July 6, 2018, 37.

³⁴⁶ Interview, US1.

³⁴⁷ Christopher Ford at CEND, 3.

³⁴⁸ Interview, A1.

6.6.3.3. Balance of Threat

Moderate Effect: 0.50. The December 2018 European CFR survey found that:

The Dutch believe that Russia is a threat whose possession of nuclear weapons increases the danger it poses. This has been the case since the beginning of the conflict in Ukraine in 2014, which increased political tension between the two countries, especially after the downing of Malaysia Airlines flight MH17. The political rhetoric Russian spokesmen have deployed has pushed nuclear weapons up the agenda. The Netherlands is also concerned about the modernization of the Russian armed forces, particularly its nuclear weapons.³⁴⁹

This perspective is consistent with that presented by the two Dutch Ministers in their request earlier that year to the AIV. Ministers Blok and Bijleveld-Schouten reference certain consequential shifts in the international situation, including Russia's modernization of its nuclear arsenal and its adoption in 2014 of a new defense doctrine in which Russia "assigns a major role to nuclear weapons, including in an offensive capacity."³⁵⁰ The AIV report, issued a year and a half later, concurs. It found that "Russia's modernization of its nuclear arsenal has reached an advanced stage and in recent years it has deployed a qualitatively and quantitatively impressive nuclear and dual-use capability, for example in Crimea and Kaliningrad, which poses a direct threat to Europe."³⁵¹

One allied official interviewed saw this threat in starkly geographical terms: without the threat of a nuclear first use with B-61s, NATO would have to immediately fall back to the Rhine to mount a credible defense and "you would lose countries." In short, this official said, DCA means "taking the battle to the east."³⁵² This official maintained that the shoot-down of MH17 and the Russian use of a chemical weapon in the attempted assassination of its ex-spy in the UK were "counterweights" that had rekindled Dutch apprehension about the nature of Russia's policies towards the West.

6.6.3.4. Transatlantic Alignment:

Full Effect: n 1.0. The Netherlands remains one of the strongest advocates within the EU for a broader and deeper integration, including with regards to CSDP. In a September 2020 survey of 23,000 Dutch citizens, the Netherlands Institute of International Relations (Clingendael) found that in light of Brexit and Trump, a strong majority (72%) across the left-right political divide in Holland

³⁴⁹ *Ibid.*

³⁵⁰ *AIV Report*, Annex I, p. 1.

³⁵¹ *Ibid.*, 48.

³⁵² Interview, A1.

seeks more cooperation with Germany and France to build a stronger Europe.³⁵³ 29% of respondents even believed then that the United States poses a threat to European security (versus 35% who do not), and 79% think the United States will over the next five years reduce its extended deterrence commitment to its NATO allies.³⁵⁴ Clingendael concludes that the two pillars of Dutch security policy in the post-Cold war era – NATO and CSDP – are “increasingly at risk of becoming incongruous” as the balance between the two shifts in favor of “more Europe.”

That said, the European CFR found that there is virtually no public debate in The Netherlands concerning a “European nuclear deterrent,” as most Dutch citizens continue to associate nuclear deterrence with NATO.³⁵⁵ The German CFR concurs, finding in its June 2020 report that “there is some general agreement that NATO, including its nuclear deterrence, is vital for European and Dutch security.”³⁵⁶

In a 2011 paper examining the Dutch preference for buying the F-35, rather than the French Rafale or the Eurofighter, to replace its fleet of F-16s, two professors at the University of Amsterdam, Virginie Mamadouth and Herman van der Wusten, agreed. They argue that when it comes to choosing between EU defense industry cooperation goals or “buying American,” the positions of large EU states such as France, the UK and Germany are well known, but “the views and practices of the smaller member states are hardly discussed in the literature.”³⁵⁷

In concluding that the F-35 won out “against all odds,” they argue that “geo-economic arguments were relatively secondary and subdued in the public debate on the purchase of the F-35,” and that in the end, what they call “military organizational tradition” (i.e., the Royal Netherlands Air Force’s long and successful participation in the U.S.-led Multi-National F-16 Program) and new

³⁵³ Rem Korteweg, Christopher Houtkamp, and Monika Sie Dhian Ho, “Dutch Views on Transatlantic Ties and European Security Cooperation in Times of Geopolitical Rivalry,” *Clingendael Barometer Alert*, September 2020, 2.

³⁵⁴ *Ibid.*, 3.

³⁵⁵ *ECFR “Eyes Wide Shut” Report*.

³⁵⁶ *DGAP Report*, 11.

³⁵⁷ Virginie Mamadouth and Herman van der Wusten, “The Footprint of the JSF/F-35 Lightning II Military Jet in the Netherlands,” *L’Espace Politique (En Ligne)*, No. 15/2011-3, 1. More recently, European leaders came to realize in the Trump era that “buying American” was a good way to try to deflect Trump’s rages over their inadequate levels of defense spending. It was reported that at the 2017 Brussels Summit, when Trump flew into a tantrum over the 2% issue, he was only finally calmed down when Dutch Prime Minister Mark Rutte said: “We get it, Donald, we need to buy more American arms.” (*New York Times*, October 25, 2019, A10.) As noted previously, in the aftermath of Trump’s aborted effort to buy Greenland, Danish Prime Minister Mette Frederiksen tried to calm the waters by emphasizing to the President Denmark’s purchase of the F-35.

productive arrangements instigated by the American side (i.e., the production assignments for the F-35 that gave prominent roles to Dutch aerospace industries) largely nullified the effects of geopolitical shifts dating from the 1990s and new political arrangements that put European ambitions further in the foreground.”³⁵⁸ In short, they believe, “being a small military partner of the U.S. is more attractive than being a small player in the EU defense policy, or for Dutch firms, being a subcontractor of a U.S. firm is more attractive than being a small player in a European conglomerate.”³⁵⁹

6.6.3.5. Ranking/Status within NATO:

Full Effect: 1.0. DCA is seen by the Dutch as a key measure of their bona fides in being a dependable alliance partner. Put more succinctly by one allied official interviewed, “the Netherlands does not want to be second-class.”³⁶⁰ Being part of DCA, this official maintained, “gives you a certain influence in discussions on nuclear policy and future.” Moreover, this official saw the Netherlands position within the high readiness (HR) component of DCA as an advantage compared to lower readiness DCA allies such as Greece and Turkey: “we can say we are not at 2% but at least we are in DCA/HR” (the High Readiness component of DCA).

“Con” Opting-In		“Pro” Opting-In	
	Factor Weight		Factor Weight
Extra Cost	.25	Balance of Threat	.50
Domestic Opposition to nuclear weapons	.50	Transatlantic Alignment	1.0
		Ranking/Status in NATO	1.0
total	.75	total	2.50

Table 21: Netherlands: Summary of Independent Variable Interactions (Table by author)

³⁵⁸ Ibid., 14.

³⁵⁹ Ibid.

³⁶⁰ Interview, A1.

6.7. NORWAY

6.7.1. Nuclear-Sharing Antecedents

As it recovered economically and politically from the German occupation in World War II, Norway's first choice to ensure its future security and sovereignty was not to join NATO. Rather, it diligently pursued a Scandinavian Defense Union (SDU) with Sweden and Denmark. This effort, though, came to naught, due to an irreconcilable difference between Norway and Sweden: whereas Sweden insisted that the SDU be strictly neutral, Norway was adamant that there had to be some tie to a western security structure that would extend military assistance if war came again. As University of Oslo Professor Olav Riste wrote in 2001:

By her signature of the North Atlantic Treaty on 4 April 1949, Norway had basically confirmed her long-standing but hitherto unspoken reliance on support from a friendly Western power, as a fallback position if her security and independence should come under threat from any other power. What had changed – beside the replacement of Great Britain by the United States as the principal protecting power – was first and foremost, that such support would no longer rest on the shaky basis of a tacit assumption. From now on it would be backed by a formal and explicit guarantee that an armed attack against Norway would be considered an attack against all the Treaty partners.³⁶¹

In the early years of NATO, Norway was effectively a “nuclear free zone.” Although the Norwegian government made a secret deal with the United States in 1952 on the use by the Strategic Air Command of two air bases in northern Norway if there should be a war,³⁶² in “peacetime” during the early Cold War no “foreign” troops from NATO nations were stationed on Norwegian soil, including U.S. forces.³⁶³ Hence, unlike the case in western Europe, there was simply no contingent of U.S. land, sea or air units to prospectively be equipped with nuclear armaments.

At the Paris Summit in 1957, Norway was particularly negative on the Eisenhower offers on a NATO atomic stockpile and IRBM, although they did not in the end assert a veto act to block consensus in principle on the Alliance's accepting them. Prime Minister E. Gerhardsen urged his counterparts to take great care to “avoid any steps which could be called aggressive or provocative.”

³⁶¹ Olav Riste, *Norway's Foreign Relations - A History* (Oslo: University of Oslo, 2001), 205.

³⁶² Helge Pharo, “Post-Cold War Historiography in Norway,” in *The Cold War – and the Nordic Countries*, Thorsten B. Olesen, ed. (Aarhus: University Press of Southern Denmark, 2004), 114.

³⁶³ That said, Norway did consent to use of Bodo air base by U.S. U-2 surveillance aircraft flying missions over the USSR.

Although he professed to maintain an “open mind” on the two nuclear offers, he stated that he “must recall that ever since the founding of NATO it has been the policy of the Norwegian government not to admit foreign forces on their territory, except in the case of attack or when threatened by attack.” Nor, he stressed, “did they plan to allow atomic stockpiles to be established on Norwegian territory or to construct launching sites for intermediate-range ballistic missiles.” As an alternative approach, he urged NATO to postpone any decision while “showing its willingness to enter into serious negotiations” with the USSR and even floated the idea, which he said was under considerable public debate in Norway, of a special “area” in the north where “there would be a thinning out of military forces so as to reduce tension.”³⁶⁴

At the ministerial follow-up meeting two days later, Foreign Minister Lange presented a compromise in the form of an amendment, supported also by Denmark, to the draft of the Summit communique: Norway would join consensus if the Communique included language that would “place the whole question of stockpiling of nuclear weapons and the introduction of IRBMs in direct relation to the policy of the Soviet Union with regard to these new weapons;” in other words, that unless the USSR showed a willingness to seek a negotiated solution, NATO would have “no choice” but to proceed.”³⁶⁵ After U.S. Secretary of State Dulles accepted the amendment, NATO closed ranks behind the approach, which in effect anticipated by a decade the “twin pillars” concept codified in the 1967 Harmel report.

The themes articulated by Gerhardsen and Lange at that first Summit guided Norwegian policy throughout the Cold War and beyond. Indeed, by 1965, Norway was referring to these principles as “well-established.”³⁶⁶ Yes, there had to be NATO solidarity and joint defense efforts. But with no “foreign” troops in Norway, there was no need for equipping them with nuclear systems. Equipping Norwegian forces with nuclear armaments was strictly ruled out. Thus nuclear weapons were effectively banned from Norway, its airspace and its maritime possessions, including Svalbard. The importance of engaging the Soviet Union in political dialogue and arms control negotiations should be a central pillar of any Alliance strategy. Although Norway was happy to live under the American nuclear umbrella, it insisted that conventional forces be strong enough to ensure there was no immediate recourse to nuclear use in a conflict. Norway was also pleaded that other allies chose to participate in the Alliance’s nuclear-sharing

³⁶⁴ *NATO 1957 Summit*, 13-14.

³⁶⁵ *NATO 18 Dec 1957 NATO Ministerial*, 5.

³⁶⁶ *NATO Nuclear Planning Group 50th Anniversary*, 124.

arrangements, since that effectively prevented further proliferation of nuclear capabilities within NATO beyond the UK and France.³⁶⁷

And the concept of a “special zone” in which armaments were significantly restricted found expression in what Norway called the “Nordic balance” – that is, the idea that if Norway (and Denmark) foreswear nuclear weapons on its soil, the USSR could refrain from nuclear build-ups in the North than might pressure Finland and Sweden to seek nuclear capabilities themselves. This, in effect, would create a “Nordic nuclear free zone.” In 1967, Norwegian political scientist Johan Jørgen Holst described this dichotomy as *deterrence* and *reassurance*.³⁶⁸ In other words, while Norway would be quite firmly within the Western field, it would ensure special arrangements would be made to reassure the Soviet Union of its nonaggressive stance, while also calming domestic critics of western alignment.³⁶⁹

6.7.2. Situation Post-Crimea

For most of the post-Crimea era, Norway has benefitted from having its popular former Prime Minister, Jens Stoltenberg, as NATO Secretary General. Norway is currently in the process of acquiring 52 F-35As, but it has made clear it has no intention to modify them to allow a delivery capability for the B-61.

6.7.3. Assessment of Factors Pro and Con

6.7.3.1. Extra Cost

Full effect: 1.0. Any decision by Norway to reverse this policy would be very expensive. There is no infrastructure for basing B-61 bombs at air bases in the country and little or no latitude within the small Norwegian Army to provide the base protection forces that would be required to safeguard them. These hurdles would be further magnified by the relatively low aggregate annual defense budget in Norway (\$6.671 billion), even though its defense spending/GDP ratio is high (2.03%).

6.7.3.2. Domestic Opposition to Nuclear Weapons

Full effect: 1.0. The Norwegian public is as strongly opposed to the presence or possession of nuclear weapons as one can imagine within a NATO member nation. As one senior allied official interviewed said: “there is a total nuclear allergy” – one that rules out not only any discussion of using the new F-35s for DCA or SNOWCAT roles but extends to a ban on nuclear power and opposition

³⁶⁷ Helge Pharo, 115.

³⁶⁸ Johan Jørgen Holst, *Nørsk Sikkerhetspolitikk I Strategisk Perssppektiv (Strategic Perspectives in Norwegian Security Policy)* (Oslo: University of Oslo, 1967).

³⁶⁹ Pharo, 104.

even to university nuclear research reactors.³⁷⁰ Groups that are energetically engaged in opposing all things nuclear include ICAN Norway, the Norwegian Affiliate of the International Physicians for the Prevention of Nuclear War, the Norwegian Red Cross, Nei til Atomvapen (“No to Nuclear Weapons”), Pugwash, Norwegian People’s Aid, the Norwegian Peace Council.

Norway’s governing coalitions are typically multi-party, with power shifting between center-right and center-left. Small parties within these coalitions can thus exert outsized influence on issues of primary importance, making Norway more responsive to public attitudes than other allies. In February 2018, domestic political activism in support of the NTB led the Storting to request the government to “review the consequences for Norway of ratifying the recently adopted Treaty on the Prohibition of Nuclear Weapons.”³⁷¹ The government review confirmed Norway’s commitment to the ultimate goal of a “world without nuclear weapons,” balanced by Norway’s continued support for a security policy founded on deterrence, including nuclear deterrence.³⁷² It also emphasized Norway’s commitment to arms control, disarmament and non-proliferation efforts, including the NPT Review Conferences, the 2013 Oslo Conference on the Humanitarian Impact of Nuclear Weapons and follow-up conferences in Mexico and Austria in 2014, the Quad Nuclear Verification Partnership (UK-Norway-Sweden-US), and the 30-nation International Partnership for Nuclear Disarmament Verification. With regard to the NTB, the Review’s summary conclusion was that if ratified the Treaty would prohibit Norway from participating in the NPG, “thus reducing Norway’s influence on NATO’s nuclear policy” which in turn would “not be an effective way for Norway to promote disarmament.”³⁷³ The Review also noted that the NBT was negotiated outside the framework of the NPT.

6.7.3.3. Balance of Threat

Moderate Effect: 0.50. Norwegians are under no illusions regarding the nature of Russia’s commitment to ensuring there is no intrusion of western influence into its “near abroad” or of its hostility toward the Baltic states. As in Sweden (which recently decided to significantly increase its defense spending and include possible NATO membership as a foreign policy option, though not an intention), Norway accepts that peace and independence requires a strong defense. That said, Norway also prides itself on being able to engage with its neighbor to the

³⁷⁰ Interview, A1.

³⁷¹ Ministry of Foreign Affairs, Norway (2018), “Review of the Consequences for Norway of ratifying the Treaty on the Prohibition of Nuclear Weapons” (https://www.regjeringen.no/en/documenter/review_tpnw/id_2624520/).

³⁷² *DGAP Report*, 12.

³⁷³ *Ibid.*, 10.

east, with which it shares a 122 mile common border in its northern-most territory, and to find practical political solutions to issues where both side's interest collide. A good example was the Norwegian-Russia agreement in 2010 on the demarcation of their maritime boundary in the Barents Sea and Arctic Ocean, ending decades of negotiation amicably despite the enormous significance of this accord for resource exploitation in the region.

That said, increased Russian militarization in the Arctic has prompted Norway to strength its defense presence and force projection capabilities in the "High North." Norway was a leading advocate of NATO's decision in 2020 to establish a new NATO Command for the North Atlantic.

6.7.3.4. Transatlantic Alignment

Little effect: 0.25. Norway is not a member of the EU, having twice rejected that alignment in popular referenda. Although Norway does contribute forces to some CSDP missions as a "third party," its security orientation is overwhelmingly towards the west, and towards the United States in particular.

6.7.3.5. Ranking/Status within NATO

No Effect: 0.0. Like Denmark, Norway has never looked to nuclear-sharing arrangements as a modality to assert status and influence within the Alliance. Also like Denmark, Norway prefers to emphasize its contributions to NATO operations and missions ("punching above its weight"), its commitment to conventional defense as exemplified by its F-35 acquisition, and its leading role in providing security to NATO in the "High North."

"Con" Opting-In		"Pro" Opting-In	
	Factor Weight		Factor Weight
Extra Cost	1.0	Balance of Threat	.50
Domestic Opposition to nuclear weapons	1.0	Transatl. Alignment	.25
		Ranking/Status within NATO	0.0
total	2.0	total	.75

Table 21: Norway: Summary of Independent Variable Interactions

6.8. PORTUGAL

6.8.1. Nuclear-Sharing Antecedents

As what one senior allied official interviewed called “a consciously non-nuclear country” that “truly believe[s] it is possible to live in a non-nuclear weapons world,” Portugal has throughout the 70+ years of NATO played no direct role in the Alliance’s nuclear posture or nuclear-sharing arrangements, including DCA.³⁷⁴ When Portugal was invited to join NATO in 1949, it expressed reservations about the use of its naval and air facilities by “foreign” forces. Upon receiving assurances that they would not be used without the government’s full consent, however, Portugal accepted the invitation and joined NATO as a Founding Member.³⁷⁵ To be sure, the United States Navy, according to open sources, stored nuclear anti-submarine warfare (ASW) systems at Lages Air Base in the Azores throughout most of the Cold War, and nuclear torpedo-equipped U.S. Navy submarines arrived at and departed from this facility.³⁷⁶ While Portugal was undoubtedly aware of these activities, it played no role in them, as all nuclear weapons were under strict and exclusive U.S. custody, and Portuguese military platforms (air, naval and land) were not designed to carry and deliver such devices.

The United States viewed the Azores as a particularly strategic piece of geography. In a 1938 strategy document, U.S. Navy Rear Admiral Yates Stirling, Jr., who had served as Commandant at Pearl Harbor, described the Azores as constituting “the advanced strategic border” of North America, equivalent in strategic importance to Hawaii in the Pacific. The Azores are located one-third of the way between Lisbon and New York and serve effectively as a crucial link in reinforcing NATO via the Atlantic Ocean and serving as a base of operations for protecting the vital sea-lines of communication in the southern North Atlantic.

Fearing that Germany might seize and occupy the Azores for its own naval operations, President Roosevelt and Prime Minister Churchill in 1943 agreed a plan, *Operation Lifebelt*, to jointly take possession of the islands. This plan was never implemented, but in 1943-1944 the then-U.S. Chargé des Affaires in Lisbon, George F. Kennan, negotiated a U.S. and UK base rights arrangement with President Salazar, and Portugal remained neutral throughout World War II.

³⁷⁴ Interview, A1.

³⁷⁵ “Portugal and NATO,” NATO website (archives).

³⁷⁶ This included the fateful last voyage of the USS *Scorpion*, which while returning to the United States in 1968 sank in 10,000-foot deep waters 400 miles southeast of the Azores with the loss of all personnel onboard and two nuclear Mk-45 ASTOR ASW torpedoes, which have never been recovered.

At the Paris Summit in 1957, Portugal's Prime Minister, Professor Dr. Caetano (attending in place of President Salazar) ignored Eisenhower's atomic stockpile and IRBM offers altogether, choosing instead to describe his country's "extra-European responsibilities for territories "scattered throughout Africa and Asia," which would necessarily limit any contribution Portugal would be able to make to any NATO program or agency.³⁷⁷ In this same vein of fiscal austerity, the Portuguese Foreign Minister, Prof. da Cunha, intervened at the Ministerial follow-up meeting two days later only to object to any assumption that there was a consensus that NATO common funding should be used to finance the introduction of the atomic stockpiles and IRBMs to Europe.³⁷⁸ A year later, during a visit to Lisbon by George Kennan, Salazar worried that the atomic stockpile and IRBM deployments would "raise difficulties in the path of any agreement [with the Soviets] on atomic disarmament."³⁷⁹

Portugal regards an ocean-based zone bounded by Portugal, the Azores and Madeira as a "triangulo estrategico" (strategic triangle).³⁸⁰ Throughout the Cold War, NATO concentrated ASW capabilities in that area. To oversee these operations, the Alliance established its command headquarters for the Iberian peninsula and adjacent waters, IBERLANT, in Lisbon in 1967, to ensure the surveillance of approximately 600,000 square miles of ocean from the Strait of Gibraltar westward some 1,150 kilometers and southward to the Tropic of Cancer.³⁸¹

In 1974, the "Carnation Revolution" overthrew the authoritarian "Estado Novo" regime under which Prime Minister Salazar had ruled from 1932 until 1968 and reinstated democracy in Portugal. In 1981 the ruling Democratic Alliance that had been in office a year, comprised of the Social Democratic, Monarchist and Christian Democratic parties, defeated an effort in the Portuguese parliament to declare a total ban on any nuclear weapons in or transiting Portugal or its adjacent waters. As one reporter described the outcome:

The coalition opted for the status quo. Nuclear weapons go back to being an issue officially left entirely in the hands of the military, who discuss it only with their NATO partners and never inform the opposition of what is

³⁷⁷ *NATO 1957 Summit*, 29-30.

³⁷⁸ *NATO Paris 18 Dec 1957 Ministerial*, 13.

³⁷⁹ Frank Costigliola, ed., *The Kennan Diaries* (New York: Norton & Co., 2014), 374.

³⁸⁰ *Conceito Estrategico de Defesa Nacional (National Defense Strategic Concept)*, Governo de Portugal, Lisbon, 2013, 26.

³⁸¹ NATO Public Diplomacy Division (PDD), 9.

or is not in the holds of alliance aircraft carriers or submarines calling at Portuguese ports.³⁸²

For the record, Prime Minister Francisco Pinto Balsemao denied that Portugal had ever been asked to have nuclear arms stored on its territory.³⁸³ In effect, then, rather than direct participation in NATO's nuclear posture and nuclear-sharing arrangements, Portugal elected to "turn a blind eye." This historical "middle-ground/have it both ways" positioning by Portugal is perhaps best illustrated by a conversation in 1956 between Portugal's Permanent Representative to NATO and SACEUR, General Norstad, on the subject of whether NATO Member States did or did not have to agree unanimously to direct the use of nuclear weapons in a conflict. "If that time comes," said the Ambassador, "use them; don't wait to ask us. We may hang you afterwards, but for God's sake use them."³⁸⁴

After the Cold War ended, the IBERLANT headquarters was downsized and repurposed, and renamed as Joint Forces Command, Lisbon (JFC-Lisbon). Following a further headquarters consolidation round in later years, JFC-Lisbon was disestablished and replaced with STRIKEFORCE NATO, which moved to Lisbon from Naples. Portugal was one of the last NATO allies to acquire the F-16, and for years it struggled with pilot proficiency issues. In time however, Portuguese competence reached stage where its F-16s could start assuming Portugal's rotation responsibilities for Baltic Air Policing.

6.8.2. Situation Post-Crimea

Although Portugal joined consensus with its NATO allies in condemning Russia's illegal annexation of Crimea and its military intervention in eastern Ukraine, its own assessment of the challenges Russia posed to the Alliance were little changed. Portuguese F-16s have participated in air policing missions and since 2015 has contributed land forces and aircraft to the eFP mission in Lithuania. Portugal did not, however, join in the VJTF rotational plan. Rather, Portugal's orientation remained principally focused on the south, and challenges associated with instability and terrorism in North Africa and the Middle East. In January 2021, Portugal assumed the 6-month rotating Presidency of the European

³⁸² Richard Timsar, "Portugal Gives Green Light to the Passage of U.S. Nuclear Arms," *Christian Science Monitor*, June 9, 1981, 1. This "we defer to the military" stance was evident to the author of this dissertation, who in asking for an interview appointment with the Portuguese Permanent Representative at NATO, was told that "this is too sensitive for the Portuguese Representation to discuss" and referred to MoD in Lisbon.

³⁸³ *Ibid.*

³⁸⁴ Robert Wampler. *Ambiguous Legacy: The United States, Great Britain, and the Foundations of NATO Strategy, 1948-1957* (Boston: Harvard University Press, 1991), 987.

Council, further solidifying its close involvement in and association with the European Union.

6.8.3. Assessment of Factors Pro and Con

6.8.3.1. Extra Cost

Full Effect: 1.0. Portugal would face virtually insurmountable resource challenges if it were to decide to join DCA. Its F-16s would have to be modified for nuclear delivery and army forces would have to be diverted for base protection, assuming B61 bombs were stored at its F-16 home base, Monte Real Air Base. These challenges would be compounded by its low level of annual defense spending (\$3.472 billion) and mid-range defense spending/GDP ratio (1.63%). The United States well understands the limitations on the Portuguese defense budget. Rather than asking Portugal to contribute across the board, the State Department is clear that the priority for the Portuguese armed forces is on “role specialization; that is, to be able to contribute more “in areas where it has specific expertise.”³⁸⁵

6.8.3.2. Domestic Opposition to Nuclear Weapons

Full Effect: 1.0. As one senior allied official interviewed said, “Keeping Portugal as a non-nuclear country is an objective that unites all parties that govern and have governed Portugal. Nuclear weapons are not a theme ad, to be or not to be a DCA country, either.”³⁸⁶ In its diplomacy, Portugal places very high priority to the NPT, and has been active diplomatically in Review Conferences. In 2018, a petition signed by 13,000 was presented to the Portuguese Parliament recommending that Portugal sign the NBT, though the Portuguese Assembly subsequently rejected a draft resolution by 4 parties (Communist, Left Bloc, Greens and “People-Animals-Nature”) echoing this appeal.³⁸⁷ As a Portuguese diplomat explained in remarks to the First Committee of the UN General Assembly:

My country shares most of the concerns and frustration about the lack of concrete steps on nuclear disarmament that led to the adoption of the Treaty on the Prohibition of Nuclear Weapons. But in our view, a process of gradual reduction of nuclear weapons, taking into account legitimate

³⁸⁵ *Integrated Country Strategy: Portugal*, U.S. Embassy, Lisbon. August 6, 2018, 10.

³⁸⁶ Interview, A1.

³⁸⁷ “Portuguese Premiere for ‘The Beginning of the End of Nuclear Weapons,” *Pressenza PT*, August 8, 2019.

national and international security concerns is the best approach to ensure sustainable progress in multilateral disarmament negotiations.³⁸⁸

The ECFR agrees, finding that while the public is “generally in favor of nuclear disarmament,” the “mainstream parties believe this is a long-term goal that should not jeopardize nuclear deterrence.”³⁸⁹ “As one Portuguese academic has observed:

Portugal is in a comfortable position on nuclear non-proliferation and disarmament. Since nuclear matters are not a first-order priority, Portugal’s positioning can accommodate to a variety of views, displaying flexibility during discussions in the [EU]. Although the country gives in on important issues, it draws the line with others. ... It’s priority, however, is that NATO’s interests are not affected, since the state wants to remain under the nuclear umbrella.³⁹⁰

6.8.3.3. Balance of Threat

Little Effect: 0.25. Although Portugal was stridently anti-Communist under its authoritarian leader Dr. Salazar, since the Carnation Revolution that overthrew that regime in 1974 and led Portugal toward a democratic government the country has viewed itself as a middleman in the dialogues between Europe, the Americas and Africa, placing a high priority on multilateralism and multilateral organizations.³⁹¹ In its post-Salazar Constitution, adopted in 1976, Portugal is committed to advocate “simultaneous and controlled general disarmament, the dissolution of the political-military blocs and the setting up of a collective security system, all with a view to the creation of an international order with the ability to ensure peace and justice in the relations between peoples.”³⁹²

In discussions at NATO since Crimea, Portugal’s orientation in terms of threats has been much more to the south than to the east.³⁹³ Unlike its neighbor on the Iberian Peninsula, Spain, Portugal, as noted, did not volunteer to provide a brigade in the NATO reinforcement rotation program (VJTF) for dealing with Russian threats of aggression. The 2018 ECFR survey concluded that “Portugal does not perceive Russia as a threat despite its nuclear weapons. Although Portugal understands other NATO countries’ concerns about Russia and its nuclear capability, Portuguese leaders continue to view Moscow as an

³⁸⁸ “Statement by Portugal Delivered by Mr. Jose Amaral, Counsellor of the Permanent Mission of Portugal to the United Nations, October 22, 2018.

³⁸⁹ ECFR “Eyes Wide Shut” Report.

³⁹⁰ David Silva Ferreira. *Europeanization in Portugal: Nuclear Non-Proliferation and Disarmament* (Lisbon: Instituto Universitario de Lisboa, October 2016), 47.

³⁹¹ *Integrated Country Strategy*, 4.

³⁹² Constitution of Portugal, Article 7(2).

³⁹³ Personal experience of the author.

indispensable partner in stabilizing Europe and neighboring regions.”³⁹⁴ A senior allied official interviewed agreed, saying such challenges as Russia’s violation of the INF Treaty and its broader modernization of strategic and non-strategic nuclear weapons systems “is not an issue that guides Portuguese public opinion in the conceptualization of national non-nuclear strategic or the participation in the DCA.”³⁹⁵

6.8.3.4. Transatlantic Alignment

Little Effect: 0.25. Portugal historically has been aligned to west, originally towards UK then, later, US. The U.S. Consulate in the Azores is the oldest continuously operating U.S. consular establishment in the world, and the U.S. Embassy ranks as its #1 priority “the objective of reinforcing the historic U.S.-Portugal relationship.”³⁹⁶ The ECFR agrees, concluding in its 2018 survey:

The Portuguese government considers a Franco-British nuclear arrangement to be impractical. Portugal believes that membership of the same military alliance as nuclear powers the United Kingdom and France is a positive thing. However, the government is of the opinion that deterrence in Europe comes mostly from NATO and that the U.S. nuclear deterrent covering the entire Euro-Atlantic area is paramount.³⁹⁷

That said, Portugal has been a dutiful EU Member State and a frequent contributor to CSDP missions. As noted, in January 2021 Portugal assumed rotating Presidency of European Council. But in an introductory set-piece speech in early February, Portuguese Defense Minister Joao Gomes Cravinho warned his EU counterparts that “any attempt to distance the European Union from NATO would only deepen the divisions among EU member states.”³⁹⁸ Describing as a “false and outdated dichotomy” the idea that there was any contradiction between strengthening CSDP and strengthening NATO, the Minister expressed hope that with the advent of the new Biden Administration, it will be a good time to renew the political dialogue with our transatlantic partners, in particular the united States, taking stock of the new administration’s approach, which is clearly and fortunately very different from the previous administration.”

6.8.3.5. Ranking/Status within NATO

Little Effect: 0.25. Portugal is arguably the most modest and self-effacing Founding Member of the Alliance, normally waiting to intervene in NACs only

³⁹⁴ ECFR “Eyes Wide Shut” Report.

³⁹⁵ Interview, A1.

³⁹⁶ “Integrated Country Strategy, 4.

³⁹⁷ ECFR “Eyes Wide Shut” Report.

³⁹⁸ “Minister: Detachment from NATO Would Widen Divisions in the EU,” *Euractiv*, February 1, 2021.

after most other nations have spoken and rarely, if ever, threatening consensus on any issue.³⁹⁹ In short, Portugal seems to be happy to be a member of this “club,” and is content to let others determine its nuclear policies and posture without playing a direct role.

“Con” opting-in		“Pro” Opting-In	
	Factor Weight		Factor Weight
Extra Cost	1.0	Balance of Threat	.25
Domestic Opposition to nuclear weapons	1.0	Transatl. Alignment	.25
		Ranking/Status within NATO	.25
total	2.0	total	.75

Table 22: Portugal: Summary of Independent Variable Interactions

³⁹⁹ Personal experience of the author.

6.9. SPAIN

6.9.1. Nuclear-Sharing Antecedents

Spain did not become a NATO member until May 30, 1982, several years after democracy was restored following the death in 1975 of General Franco. It took, however, four years before domestic political processes within the country fully and finally resolved the membership issue. Opposition to membership was fierce from not only the Communist Party of Spain (PCE) but also the Spanish Socialist Workers' Party (PSOE) led by Felipe Gonzalez, who organized and led the “*No to NATO*” campaign. In the general election six months after accession, the PSOE, which had promised that the NATO question would be submitted to a popular referendum, won an overall majority and Gonzalez became Prime Minister. Despite his original opposition, Gonzalez decided to support Spain's membership, subject to conditions – one of which was that Spain would prohibit the installation, storage or entry of nuclear weapons on Spanish territory. In the March 12, 1986 referendum, Gonzales' position prevailed, 52.5% to 39.8%. It would be another three years, though, before Spain was a full participant in Alliance operations and missions, only joining the Integrated Military Command in January 1989. Eleven months later the Berlin Wall fell, and two years later the Soviet Union had dissolved.

For all intents and purposes, then, Spain's experience as a NATO member effectively does not include the Cold War era. While it is true that Spain had been a *de facto* participant in the post-WWII Western defense system since 1953 through its bilateral defense agreements with the United States (which saw Franco as a bulwark against Communism), this same *de facto* cooperation made the United States, and NATO, suspect in many Spaniards' minds.

In moving to join NATO, Spain did not see NATO so much as a means of protecting itself against the USSR (Prime Minister Adolfo Suarez had even attended the Havana Summit of the Non-Aligned Movement in 1979), but rather as a means of reinforcing its bid to join the European Economic Community and to achieve external support in countering what it saw as territorial threats from Morocco, which had ambitions to seize the Spanish enclaves in North Africa of Ceuta and Melilla, and from two other North African states that were in the Soviet orbit, Algeria and Libya.⁴⁰⁰

Cold War events and tensions did, however, have a bearing on Spain's attitudes towards the Alliance, and in particular, towards nuclear issues. Pursuant to the 1953 bilateral agreement between Franco and Eisenhower, U.S. nuclear

⁴⁰⁰ Francisco Jose Rodrigo Luelmo, “The Accession of Spain to NATO,” CVCE, July 8, 2016 (http://www.cvce.eu/obj/the_accession_of_spain_to_nato-en-831ba342-Oa7c-4ead-b35f-8ofd52b01de9.html).

weapons were according to open sources deployed in the 1950s and 1960s in support of U.S. forces at air and naval bases across Spain, including at Moron, Torrejon and Zaragoza air bases and Rota Naval Base.⁴⁰¹ Franco endeavored, without much success, to try to leverage these base rights for stronger U.S. military assistance and aid, often demanding nuclear withdrawals, including at Torrejon (just outside the capital of Madrid), if such aid was not forthcoming.

As with the case of the B-52 crash at Thule, Greenland, it took a near-disaster to bring matters to a head. On January 17, a nuclear-armed B-52G bomber (call sign “Tea 16”) performing a *Chrome Dome* airborne alert mission that was returning from its “fail-safe” orbit near the Soviet Union had a mid-air collision at 31,000 feet with a KC-135 air refueling tanker (call sign “Troubadour 12”) over the fishing village of Palomares on the southeast coast of Spain.⁴⁰² Both Tea 16 and Troubadour 12 exploded in the air, and 7 of the 11 aircrew members were killed. Four Mk 28 RI nuclear bombs rained down on the area and the adjacent waters. Two of the bombs had their non-nuclear explosive “triggers” denotate, though none of the four had a critical nuclear explosion and the two other bombs were eventually recovered intact. Nonetheless, radioactive plutonium was spread across a wide area. Clean-up and recovery efforts began immediately, and contamination claims continue to this day.⁴⁰³

Although the Franco government’s initial instinct was to try to hush up the incident, that proved impossible, and the accident was front-page news in the United States and Spain by the end of the month. The 1975 Palomares Summary Report by the U.S. Defense Nuclear Agency aptly sums up the consequences of this accident for U.S.-Spanish relations:

It is inconceivable that an incident such as that at Palomares would be ignored or later forgotten by governments or their people. In times of war, acceptable risks are expected. In times of peace, however, otherwise negligible risks become potential disasters. As a risk is transformed into reality, as occurred at Palomares and later at Thule, governments and peoples take a new look at the risk and ask themselves if a previously acceptable risk is now less acceptable, or unacceptable. These reevaluations do impact on military operations and defense preparedness.⁴⁰⁴

⁴⁰¹ Clara Portela, “The Rise and Fall of Spain’s ‘Nuclear Exceptionalism’,” *European Security*, Vol. 23, 2014 – Issue 1, 93.

⁴⁰² Descriptions of the accident and its after-effects taken from “Palomares Summary Report,” Field Command, Defense Nuclear Agency (DNA), Technology and Analysis Directorate, Kirkland Air Force Base, January 15, 1975 (declassified on July 26, 1988).

⁴⁰³ In 2015, Secretary of State John Kerry signed another accord with his Spanish counterpart committing the United States to make new efforts to resolve these claims.

⁴⁰⁴ *DNA Summary Report*, 147.

In the furor that followed the United States promised to discontinue nuclear-armed overflights of Spanish territory.⁴⁰⁵ Twenty years later, with the full implications of the accident well-known in the Spanish public, this crash was a major factor in negative Spanish attitudes toward nuclear weapons as Spain debated the NATO accession question, and it was a major impetus for Gonzalez's decision to include the nuclear ban in the conditionality attached to the 1986 referendum. To be sure, as a NATO member in full standing, Spain is a member of the NPG and joins consensus on Alliance nuclear policy declarations. It also must contribute its allocated share towards common funding of certain DCA-related NSIP infrastructure and C2 programs. But it has made clear that it differentiates between those broad, collective responsibilities and active DCA participation. For years, Spain insisted that a "caveat" be attached to NPG documents via a footnote stating that "all participation by individual allies in the collective nuclear-sharing arrangements is on a voluntary basis."⁴⁰⁶ One interviewed official quipped, with regard to non-DCA nations' role in the NPG: "Canada talks a lot without contributing, but Spain talks the least without contributing."⁴⁰⁷

This sense of a "nuclear taboo" exists today. As one senior allied official interviewed explained, Spain's being out of DCA "has more to do with Palomares, the transfer from Franco, and the question of nuclear weapons generally" than to any specific calculation of which operational tasks on which Spain should concentrate its contributions.⁴⁰⁸ In this official's estimation, the nuclear ban in the 1986 NATO membership referendum is "written in stone, and it would not be easy for any political figure to argue to change it."

6.9.2. Situation Post-Crimea

The Spanish Air Force flies the Typhoon and the F/A-18, which in its US Navy version used to be nuclear-delivery certified. Spain plans to continue operating F/A-18E/F Super Hornets for the foreseeable future, but it has joined France and Germany in designing a new "next-generation" fighter to replace the Eurofighters starting in 2040.⁴⁰⁹ Spain's F-18 fleet has less flying hours accumulated than anticipated, so it has "plenty of time" to consider a replacements.⁴¹⁰ Spain also operates the Harrier short takeoff and vertical landing (STOVL) "jump jet" fighter from the deck of its aircraft carrier, though, and the replacement of this aging system is more pressing. Here, it is

⁴⁰⁵ Portela, 93.

⁴⁰⁶ Interview, N1.

⁴⁰⁷ *Ibid.*

⁴⁰⁸ Interview, A1.

⁴⁰⁹ Michel Rose, "Spain Joins France and Germany in Race to Build Europe's Next Combat Jet," *Reuters World News*, June 17, 2019.

⁴¹⁰ Interview, A1.

understood that Spain may have to consider the U.S. Marine Corps F-35B V/STOL variant for that mission.⁴¹¹ Consistent with the 1986 conditionality that accompanied Spain's accession to NATO, none of these aircraft have ever been assigned nuclear tasks, either as part of DCA or SNOWCAT.⁴¹²

6.9.3. Assessment of Factors Pro and Con

6.9.3.1. Extra Cost

Full Effect: 1.0. Spain has no DCA infrastructure, no nuclear-equipped aircraft, and no DCA base protection forces. Although Spain has an aggregate level of defense spending annually in the mid-range (\$14.069 billion), its defense spending/GDP ratio is very low (1.16%), which would further complicate any initiative to try to join DCA.

6.9.3.2. Domestic Opposition to Nuclear Weapons

Full Effect: 1.0. To the extent there is interest in nuclear matters among the general public, it is largely anti-nuclear. This reflects the 1986 nuclear ban condition put forward by Felix Gonzalez under which the nation ratified its accession to NATO originally. In its diplomacy, Spain has been a strong champion of the NPT since ratifying it in 1987 and a constant *demandeur* for greater progress between the nuclear powers in fulfilling their arms reduction obligations under Article 6.⁴¹³ In September 2018, in exchange for its support on the 2019 Federal budget, the political party Podemos obtained a commitment from the Spanish government led by Pedro Sanchez to take steps that would allow Spain to sign the NTB. Although this general and rather vague promise led ICAN to issue a press release asking, "Could Spain be the First NATO State to Sign the Nuclear Ban Treaty?," the NGO also acknowledged that the government had not yet announced how or when they would implement the commitment."⁴¹⁴

6.9.3.3. Balance of Threat

Little Effect: 0.25. The ECFR assessed that: "the 2017 National Security Strategy places no special emphasis on nuclear issues," and that "Spain does not consider Russia to be a threat." Rather, Spain's Ministry of Foreign Affairs website emphasizes: "Spain works in the Atlantic Council to ensure that its interests are taken into account, especially regarding the Southern Flank." Spain offered a rotational brigade for the VJTF, but it made sure VJTF was a "360 degree" rapid

⁴¹¹ CRS F-35 Report (Updated), 30.

⁴¹² Interview, A1.

⁴¹³ Although there had been some general interest during the Franco era in obtaining an independent Spanish nuclear capability, this option was firmly discarded when the nation acceded to NATO in the post-Franco era.

⁴¹⁴ "Could Spain Be The First NATO State to Sign the Nuclear Ban Treaty?," ICAN, September 8, 2018.

response force in its orientation, thus ensuring its availability for missions on the Southern Flank, if required.

6.9.3.4. Transatlantic Alignment:

Little Effect: 0.25. Initially, public resentment over U.S. support for the Franco regime was a factor in public opposition to NATO membership, but the governments of Leopoldo Calvo-Sotelo and Felix Gonzalez pushed it through. That said, recent polling suggests that NATO is viewed unfavorably by more in Spain (43%) than in any other allied country.⁴¹⁵ The ECFR survey concludes that “Spain believes cooperation with the United States on nuclear-related issues to be crucial and more important than that with France or the United Kingdom” and that although Spain supports CSDP missions frequently and “generally prefers pan-European security initiatives,” “the strategic cultures of France and the UK discourage Spain from supporting a European [nuclear] deterrent.”⁴¹⁶ In this regard, it is notable that the current Spanish government, led by Prime Minister Pedro Sanchez, in December 2020 sided with the German Defense Minister in arguing that Europe would not be able to provide for its own security without U.S. and NATO help, thus distancing himself from French President Macron’s call for greater EU strategic autonomy.

This Special relationship is exemplified by the U.S. decision to homeport four US Aegis BMD destroyers at Rota, with their crews’ families and dependents accompanying them there. This basing decision not only benefits Spain significantly in terms of the economic boost to local businesses, but it came at the expense of the four U.S. east coast cities that had been the homeports of the four ships.

6.9.3.5. Ranking/Status within NATO

Little Effect: 0.25. Spain resents the fact that Germany and Italy get more consultative attention than it does, but it does not look to DCA to establish its credentials within NATO. One former SACEUR interviewed cited Spain as an example of a non-DCA ally that tries to do more in other operational domains and is recognized for that. In his estimation, “with the force they have, they are active.”⁴¹⁷

⁴¹⁵ “NATO Seen Positively by Many in 10 Member States,” *Pew Research Center*, November 30, 2020. The NATO-wide average was 30%, and the lowest “unfavorable view” was in Denmark (17%).

⁴¹⁶ ECFR “*Eyes Wide Shut*” Report.

⁴¹⁷ Interview, N2.

“Con” Opting-In		“Pro” Opting-In	
	Factor Weight		Factor Weight
Extra Cost	1.0	Balance of Threat	.25
Domestic Opposition to nuclear weapons	1.0	Transatl. Alignment	.25
		Ranking/Status in NATO	.25
total	2.0	total	.75

Table 24: Spain: Summary of Independent Variable Interactions

6.10. TURKEY

6.10.1. Nuclear-Sharing Antecedents

After World War II, Turkey's leadership harbored strong antipathies toward the Soviet Union. Russia and Turkey had previously fought 17 major wars, and Stalin, as noted, had made territorial claims for parts of northern Turkey and demanded the stationing of Soviet forces at bases in the Dardanelles. U.S. assessments in the late 1940's stressing the strategic importance of Turkey should a war with the USSR break out were the principal factor leading to its inclusion in the March 1947 Truman Doctrine.⁴¹⁸ Reinforced by the military and economic aid that accompanied it, Turkey later showed its gratitude by contributing soldiers who fought and died as allies of the United States in the Korean War. Nonetheless, initial Turkish efforts to join NATO in 1949 were rebuffed, as NATO was originally focused on the North Atlantic (even though Italy had been allowed in). However, by May 1951 the U.S. strategic assessment of broad Soviet expansionist goals in the Middle East, as well as concern that not extending NATO membership might provoke Turkey towards neutrality, led it to join consensus with the other Alliance founding members to admit Greece and Turkey.⁴¹⁹

In the early Cold War years, Turkish divisions were deployed across its long border with the Soviet Union to deter any further expansionism to the south by its historic rival. Pursuant to the Truman Doctrine, the United States provided Turkey in 1948 alone with almost 200 WWII-era fighters, light bombers and transport planes, and jet fighters started to be sent in 1950-1951.⁴²⁰ At NATO, the assumption was that throughout the Cold War Turkey had tied up at least 20 Soviet divisions that could otherwise threaten Western Europe. In this strategic context, Turkey looked favorably on President Eisenhower's emphasis in his New Look strategy on increased reliance on nuclear weapons, including for purposes of extended deterrence to allies.

By the time of the 1957 Paris Summit, Turkish Air Force fighter aircraft had already been armed with U.S. nuclear bombs under a "dual key" command and control arrangement.⁴²¹ At that Summit, Prime Minister Menderes enthusiastically embraced Eisenhower's IRBM offers, contending that such

⁴¹⁸ For a more benign interpretation of Soviet intentions, see: Melvyn P. Leffler, "Strategy, Diplomacy, and the Cold War: The United States, Turkey, and NATO, 1945-1952," in *Safeguarding Democratic Capitalism: U.S. Foreign Policy and National Security, 1920-2015* (Princeton: Princeton University Press, 2017), 164-185.

⁴¹⁹ *Ibid*, 184. See also: Acheson, 563-564.

⁴²⁰ Leffler, 177.

⁴²¹ Aaron Stein. "Turkey, Tactical Nuclear Weapons, and Strategic Thinking," Blog posted on May 16, 2013 at *Nuclear and Political Musings in Turkey and Beyond* <http://turkeywonk.wordpress.com>.

nuclear deterrent capabilities were especially required by those countries with “common frontiers with the Soviet Union or the satellite countries,” and recommending the *Jupiter* missiles be deployed “in large numbers throughout the NATO territory” so as to reduce their vulnerability during “the opening days of a Soviet all-out offensive.”⁴²² As Philip Nash has observed, “Turkish officials were well aware of the weaknesses, but as many of their alliance counterparts did, they thought the missiles would bring them greater international prestige, counteract Soviet ICBMs, not render Turkey any more a military target than it already was, and increase Turkey’s security.”⁴²³ Elaborating on Turkey’s immediate and enthusiastic acceptance of the *Jupiters*, Nash adds:

The Americans must have been chagrined to encounter the most attractive IRBM host only at the end of their frustrating quest. Not only did Turkey offer the best coverage of Soviet targets from a military standpoint, but it also combined unmatched enthusiasm for the IRBMs with a minimum of conflicting national objectives and domestic impediments. The Turks wanted the latest weaponry for their armed forces as soon as possible and were willing to forgo modifications or concessions that might get in the way.⁴²⁴

Final agreement on the deployment was reached on September 16, 1959,⁴²⁵ and by the time of the Cuban Missile Crisis in 1962, 15 *Jupiters* with nuclear warheads were standing on above-ground launch pads at a base at Cigli, near Izmir on Turkey’s Aegean coast. Months before this crisis unfolded, the new Kennedy Administration had approached Turkey about withdrawing the missiles and accepting in their place deployment of an equivalent number of Polaris submarine-launched ballistic missiles (SLBMs) on U.S. submarines patrolling in the eastern Mediterranean Sea, with the warheads under exclusive U.S. command and control. Turkey firmly rejected this offer. As Foreign Minister Selim Sarper explained to Secretary of State Dean Rusk at a CENTO ministerial in Ankara in April 1962, “*Jupiters* based on Turkish soil represented firm proof of the U.S. commitment to Turkey’s security – submarines cruising the Mediterranean did not.”⁴²⁶ As a result, the *Jupiters* were still deployed when the Cuban crisis focused U.S. and Soviet attention on the possibilities for using them as “trade bait” in the complex diplomacy that eventually led to the agreements between Kennedy and Khrushchev that averted nuclear war.

As previously noted, by 1967, all further initiatives by the Kennedy and Johnson Administrations to find consensus support within the Alliance for some form of

⁴²² *NATO 1957 Summit*, 35.

⁴²³ Nash, 65.

⁴²⁴ *Ibid.*, 67.

⁴²⁵ Stein

⁴²⁶ Nash, 98.

acceptable “multilateralization” of a NATO nuclear force (MLF) had failed, and the focus shifted instead to means for enhanced consultation with regard to the Alliance’s nuclear posture and policies.”⁴²⁷ All U.S. tactical nuclear weapons, including those in Turkey, were to remain deployed under exclusive U.S. custodianship, with exclusive U.S. command and control assured through installed PALs. This effort culminated in the establishment in 1967 of the Nuclear Defense Affairs Committee (NDAC), which was open to all allies, and a smaller subgroup to handle the detailed work of the NDAC, the Nuclear Planning Group (NPG), of which Turkey was one of only seven original members.⁴²⁸ The United States agreed that the NPG, together with the NATO Military Committee, operationalized a means “for national governments to exert a direct influence on nuclear planning in the Alliance through their senior political and military authorities.”

At the inaugural meeting of the NPG in Washington, D.C., on April 7, 1967, Turkish Minister of Defense Ahmet Topaloglu led a discussion of the smallest type of U.S. tactical nuclear weapon, the atomic demolition mine (ADM), “with special reference to the South-eastern Flank.”⁴²⁹ Turkey’s emphasis on ADMs to slow or block a Soviet invasion reflected the skeptical military assessment that its military authorities had reached the year before with regard to NATO’s emphasis, under Secretary McNamara’s prodding, on the doctrine of “flexible response.”

In short, Turkey’s view was that the willingness by NATO to order a first use of tactical nuclear weapons to halt a Soviet invasion still very much mattered. No “battlefield” nuclear weapon of that era had a more immediate use possibility than the ADMs, which in a crisis were to be rushed forward by Army armored units and emplaced at critical chokepoints along the East-West divide. As Topaloglu had stated at a meeting of the Defense Planning Committee six months earlier:

[C]urrent studies on the question of improving the defense capability of the flanks by external reinforcements indicated that, even were the time needed for the arrival of these forces and the necessary reception facilities to be discarded, the size of these forces was such that they could only be considered as useful in contributing to NATO’s solidarity and deterrence; they

⁴²⁷ “NATO Nuclear Planning Group,” NATO Press Release (67)4, April 7, 1967, 2.

⁴²⁸ The NPG was later expanded to include all NATO allies, except France, which remained outside the NPG even after it rejoined the integrated NATO Command Structure under President Sarkozy in 2009.

⁴²⁹ “Nuclear Planning Group-Ministerial Meeting (PO/67/171)”, March 10, 1967 (Originally NATO Secret but Declassified and Publicly Disclosed in *Nuclear Planning Group: 50th Anniversary of the First Meeting of the NPG*, NATO Archives, 2017, 37).

could neither increase the defense power nor could they replace the defense needs of the local forces.⁴³⁰

ADMs were not, of course, the only U.S. nuclear weapon reportedly based on Turkish soil after the *Jupiters* were removed. One open source cites the following inventory of systems present by the end of the Cold War: 500 nuclear warheads total, including 300 bombs for Turkish F-100s, F-104s, and F-4s at four Turkish air bases (Ankara, Eskisehir, Balikesir, and Malatya) and for U.S. Air Force fighters and bombers deployed to Incirlik, and 190 warheads for the Turkish Honest John rockets and 8-inch artillery.⁴³¹

In the 1970's, Turkey's relations with the United States and Europe were severely strained when its military forces invaded Cyprus to prevent the Cypriot government's announced intention to unite with Greece. In response, Congress imposed an embargo on arms sales to Turkey that lasted until 1979, and as previously noted, U.S. nuclear weapons at Turkish storage depots were reportedly withdrawn.

Although it joined consensus on the "double-track" decision, Turkey was not considered as a basing nation for the planned INF deployments, and during the PNI withdrawals after the Cold War ended, vast numbers of land-, air-, and sea-based tactical nuclear weapons were reportedly removed from the country. As noted before, the exception was air-delivered gravity bombs, and here Turkey continued to play an outsized role. According to open sources, throughout most of the 1990s, there were more B-61 storage bases in Turkey and more B61s stored at those bases than any other ally. As noted in the introductory note on classification to this dissertation, though, that changed when, according to open sources, vaults at two Turkish air bases were transitioned in the late 1990's to "caretaker" status, with the B61s reportedly relocated and consolidated at Incirlik, and the Turkish DCA aircraft were downgraded in terms of their readiness status. Nonetheless, during the internal NATO negotiations over the DDPR in 2011, Turkey opposed the initiative by Germany, the Netherlands and Belgium to forge a consensus to remove all B61s from Europe.⁴³²

⁴³⁰ "Defense Planning Committee: Summary Record of a Meeting Held at the Permanent Headquarters, Paris, 16e., on Wednesday, 14th December 14, 1966, at 3:30 p.m., (DPC/R(66)11," February 20, 1967 (Originally NATO COSMIC TOP SECRET but Declassified and Publicly Disclosed in *Nuclear Planning Group: 50th Anniversary of the First Meeting of the NPG*, NATO Archives, 2017, 112).

⁴³¹ Mustafa Kibaroglu, "Turkey," in "Tactical Nuclear Weapons and Euro-Atlantic Security: The Future of NATO," Paolo Foradori, ed. (New York: Routledge, 2013), 92.

⁴³² *Ibid.*, 93.

6.10.2. Situation Post-Crimea

In the immediate aftermath of Russia's aggression in Ukraine, Turkey acted with dispatch and commitment to support the Alliance's deterrence and defense enhancement initiatives. Most notably, it pledged in 2014 to take a one-year turn in the VJTF rotation by pledging a combat brigade for the rapid reinforcement force – a command responsibility that it assumed as of January 1, 2021. In 2015, Turkey called an emergency meeting of the NAC pursuant to Article 4 after its forces shot down a Russia fighter that had allegedly crossed into its airspace from Syria.⁴³³ At NATO Headquarters, it was uncertain in the hours before this meeting whether Turkey would insist at the NAC on allies agreeing to invoke Article 5 (it did not).⁴³⁴ Turkey also showed solidarity in 2016 when it backed off its confrontational stance with the EU over the migration flows that were streaming into Europe via Greece by working with Greece, under German mediation led by then-Defense Minister Ursula von den Leyen, to create the NATO eastern Mediterranean naval screening force that has, since 2016, helped inform FRONTEX about refugee transits.

However, with the failed coup in 2016, which President Erdoğan accused the United States of sympathizing with, if not supporting, Turkey's relationship with NATO began a sharp and divisive deterioration.⁴³⁵ The commander of Incirlik was reportedly involved in the attempted coup in Turkey in 2016, and that the Turkish authorities cut off the power supply to the base in order to reduce the risk of conspirators using the base.⁴³⁶ There have been numerous elements of this schism, but the core dispute has centered on Erdoğan's decision to acquire the Russian-made S-400 surface-to-air missile (SAM) and NATO's conclusion that this system would compromise its air defense network and hence cannot be made interoperable with allied systems.

As Aaron Stein has observed, though, the S-400 confrontation and other disputes (e.g., political alignments in Syria and the Middle East, U.S. refusal to extradite

⁴³³ Article 4 provides that "The parties will consult together whenever, in the opinion of any of them, the territorial integrity, political independence or security of any of the parties is threatened."

⁴³⁴ Careful analysis of radar tracks and recorded radio transmissions later indicated that while the Russia fighter had indeed penetrated Turkish airspace for a minute or two, it had exited that airspace before it was shot down. (Personal recollection of the author of this dissertation, who attended this NAC).

⁴³⁵ This conspiracy theory has not gone away. On February 3, 2021, the Turkish Interior Minister, Suleyman Soylu, said that it was "blatantly clear" that the United States had "managed" the coup while supporters of exiled Turkish leader Fethullah Gulen (who lives in Pennsylvania) had carried it out. ("Turkish Minister Says U.S. Behind 2016 Failed Coup – Hurriyet," *Reuters*, February 4, 2021).

⁴³⁶ Yasmin Afina, Calum Inverarity and Beeyza Unal, *Ensuring Cyber Resilience in NATO's Command, Control and Communications Systems* (London: Chatham House, July 2020), 48.

Gulen) that have contributed to the downturn in Turkish-NATO and Turkish-U.S. relations is “far deeper than any one event and is instead a culmination of Ankara’s changing view of the global balance of power, including a sense that American and European influence is declining relative to competitors in Asia.”⁴³⁷ One former U.S. official described Turkey’s position vis-à-vis NATO and DCA as “very, very much a wild card.”⁴³⁸ A senior allied official interviewed agreed that the general climate of bilateral ties between Turkey and the United States has deteriorated in recent years owing to different divergent perspectives on a variety of issues and cautioned: “If these bilateral ties further weaken and are thus aggravated one should be prepared for any type of contingency or scenario involving the termination of Turkey’s role in DCA.”⁴³⁹

Although the Trump Administration sought to separate the S-400 dispute from what it called the “strategic” and “multilayered” U.S. relationship with Turkey, a bipartisan group of eight senior Members on the House Foreign Affairs Committee called on President Trump to go even further and introduced a bill to invoke sanctions under existing legislation allowing the punishment of entities doing business with Russia.⁴⁴⁰ Unable to resolve this impasse, the Trump Administration, with overwhelming backing from the U.S. Congress, informed Turkey on July 17, 2019 that its acquisition of the Russian missile system meant that its participation in the F-35 procurement program had to be terminated.⁴⁴¹

The issue was discussed between the two Presidents during Erdoğan’s state visit to Washington in November 2019, but to no avail. The Defense Department made new offers for Turkey to instead purchase an advanced version of the Patriot interceptor system, but Turkey again found issues with pricing and technology transfer. Turkey proposed to establish a “technical working group” that it maintained would convince NATO that the S-400 was compatible with NATO systems and posed no intelligence-gathering threat, but NATO did not accept.

In May of 2020, the Trump Administration proposed that Turkey delay the S-400 acquisition to allow time to try to arrange a Trump-Erdoğan meeting in July.⁴⁴²

⁴³⁷ Aaron Stein, “Erdogan Doesn’t Want Nukes, He Wants to Blow Up the System,” *War on the Rocks, Texas National Security Review*, September 12, 2019.

⁴³⁸ Interview, US1.

⁴³⁹ Interview, A1.

⁴⁴⁰ The legislation is called “CAATSA” (the Countering America’s Adversaries Through Sanctions Act). “Turkey Snubs U.S. Request to Delay Russian Missile Purchase,” www.bloomberg.com, May 15, 2019.

⁴⁴¹ The White House, Office of the Press Secretary, “Statement by the Press Secretary,” July 17, 2019. The operative portion of this statement reads: “The F-35 cannot coexist with a Russian intelligence collection platform that will be used to learn about its advanced capabilities.”

⁴⁴² “Turkey Weighs New US Call to Delay Buying Russian Missiles,” www.bloomberg.com, May 14, 2019.

However, Turkey's Foreign Minister, Mevlut Cavusoglu, subsequently denounced any delay as "out of the question," saying the S-400 purchase was a "done deal." On July 12, 2020 the first shipments of S-400 components arrived at Murted Air Base outside Ankara.⁴⁴³ For months, COVID concerns allegedly prevented Turkey from making the S-400 operational, but in late 2020 this milestone was effectively passed.

As a consequence, on December 14, 2020 relatively mild sanctions under CAATSA were imposed by the Trump Administration against four senior management officials, including the Chairman, in Turkey's defense procurement agency, the Defense Industries Directorate (SSB). One former senior U.S. State Department official, Daniel Fried, applauded the "finesse" he attributed to limiting the sanctions so markedly, arguing they were "strong enough to capture Turkish attention but not so sweeping as to shut down bilateral security and arms relations with a NATO ally."⁴⁴⁴

Turkey's initial response has been restrained. To be sure, the Turkish Defense Minister said that "This sanctions decision has shaken all values in our countries' alliance., and Erdoğan described the measure as an attack on Turkey's sovereignty."⁴⁴⁵ But two months later, Erdoğan reached out to the new Biden Administration, stating in televised remarks that although the Turkish-US relationship had been "seriously tested" recently, "we believe our common interests with the United States have more in commonalities than they do in differences."⁴⁴⁶ That same day, it was reported that Turkey had hired an influential law firm in Washington, Arnold & Porter, to lobby Congress and the new administration to readmit Turkey to the F-35 program.⁴⁴⁷

Three former Turkish NATO Ambassadors in late December 2020 suggested a way out of this impasse, one that would require compromises on both sides: Turkey would buy the Patriot and promise not to activate the S-400, and the United States would reinstate Turkey in the F-35 program and lift the CAATSA sanctions.⁴⁴⁸ Should the new U.S.-Turkish consultations announced in February not succeed in finding some compromise, such as this package, Turkey's next step could run the gamut from simply trying to isolate the S-400 deployment to some periphery of Turkey's air defense network and living with the sanctions to

⁴⁴³ "Turkey Snubs U.S. Request to Delay Russian Missile Purchase."

⁴⁴⁴ Daniel Fried, "New Atlanticist," *Atlantic Council website*, December 17, 2020.

⁴⁴⁵ Daren Butler and Dominic Evans, "Sanctioned Turkish Defense Industry Chief Expects U.S. Ties to Survive," *Reuters*, December 15, 2020.

⁴⁴⁶ Jordan Williams, "Erdoğan: Turkey wants to strengthen ties with US After Relationship was 'Seriously Tested'," *The Hill*, February 20, 2021.

⁴⁴⁷ "Turkey Hires U.S. Lobbying Firm to Return to F-35 Jet Program," *Reuters*, February 19, 2021.

⁴⁴⁸ Ahmet Üzümcü, Mehmet Fatih Ceylan, and Ümit Pamir, "Turkey and NATO: Resolving the S-400 Spat," *European Leadership Network Commentary*, December 16, 2020.

upping the ante by denying the United States the use of Incirlik Air Base. In an extreme but hypothetical “worst-case,” Turkey could abrogate its responsibilities under the NPT and seek its own independent nuclear capability.⁴⁴⁹ Indeed, on September 4, 2019, in an address to an AKP party meeting in Ankara, Erdoğan had said: “Some countries have missiles with nuclear warheads, not one or two. But [they tell us] we can’t have them. This, I cannot accept.”⁴⁵⁰

An analysis by the *New York Times* of Turkey’s capacity to achieve such a goal concluded it was within the realm of the possible in terms of resource requirements and technical expertise, but it also said this would take several years, could not be kept secret, and would provoke a global political crisis. Analysts are divided as to whether Erdoğan was making this statement to try to deter Iran or Saudi Arabia from following this course, as a bluff to reinforce other foreign and domestic goals, or to provide a larger context for pursuing nuclear power developments with Russian help that would bring his country much closer to a “break-out” option should he so decide.⁴⁵¹ A Task Force of former senior U.S. and allied officials organized by the Chicago Council on Global Affairs recently concluded that it is probably all the above: “What appears to drive Erdoğan to make these statements ... is less concern about the U.S. nuclear guarantee than the increasingly dangerous regional environment, nationalist ambitions, as well as tensions within NATO.”⁴⁵²

6.10.3. Assessment of Factors Pro and Con

6.10.3.1. Extra Cost

Little Effect: 0.25. The DCA infrastructure is reportedly already in place in Turkey. It’s F-16s are available for recertification, and if Turkey and the Biden

⁴⁴⁹ Two professors at the US Air Force Academy, Jahara Matissek and Buddhika Jayamaha, have contended that by “crossing the Rubicon” with the S-400 acquisition, President Erdogan is trying intentionally to provoke his nation’s expulsion from the Alliance and “would dovetail perfectly with the AKP logic of permanent crises and tragic heroism” (i.e., Turkey as a victim) (Dr. Jahara Matissek and Dr. Buddhika Jayamaha, “Turkish Breakup with the U.S. and NATO: The Illogical Logics,” *Journal of Political Risk*, Vol. 7, No. 5, May 2019).

⁴⁵⁰ David E. Sanger and William J. Broad, “Emboldened, Erdoğan Seeks Nuclear Bomb,” *New York Times*, October 21, 2019, A1.

⁴⁵¹ See, for example: Barçın Yinanç, “Will Turkey Reverse its Nuclear Weapons Policy?,” *Hurriyet Daily News*, September 19, 2019 (www.hurriyetdailynews.com/opinion/barcin-yinanc/will-turkey-reverse-its-nuclear-weapons-policy-146681). See also: Aaron Stein and Sebnem Uyum, “A Complicated Decision: Why Turkey is not Likely to Follow in Iran’s Nuclear Footsteps,” *Turkish Political Quarterly*, Vol. 11, No. 2 (Summer 2012), 141-198. For the record, the Turkish MFA website includes the following NPT policy assurance in contradistinction to Erdoğan’s statement: “Turkey attaches particular significance to arms control and disarmament. Active participation in international instruments and their full implementation, as well as maintaining the coordination among relevant institutions are important elements of Turkey’s national security policy.”

⁴⁵² Daalder, 9.

Administration can find a compromise solution on the S-400 issue, that would allow Turkey to resume acquisition of nuclear-wired F-35s. The extra costs of DCA, then, are manageable, given Turkey's mid-range level of annual defense spending (\$13.303 billion) and its high defense spending/GDP ratio (1.91%).

6.10.3.2. Domestic Opposition to Nuclear Weapons

No Effect: 0.0. There is no organized anti-nuclear constituency within Turkey. Turkey has been a strong NPT advocate, Erdogan's 2019 independent capability statement notwithstanding. Given Erdoğan's increasingly authoritarian rule, he can afford to be less responsive to public opinion in his country, were it to turn strongly anti-nuclear.

6.10.3.3. Balance of Threat

Significant Effect: 0.75. Although Erdoğan has formed transactional partnerships with Russia (and Putin in particular) over the S-400 and assistance with nuclear power development, the historical antagonisms run deep. Some maintain that this new partnership "turned sour" when Russia turned a blind eye after its Syrian ally killed Turkish soldiers at Idlib.⁴⁵³ Turkey has supported all NATO deterrence and defense enhancements post-Crimea. Former Turkish NATO Permanent Representative Fatih Ceylan maintains that: "The aggressive actions of Russia in Ukraine which undermined the sovereignty and the territorial integrity of that country clearly demonstrates that Russia is no longer a reliable partner for NATO."⁴⁵⁴

6.10.3.4. Transatlantic Alignment:

Moderate Effect: .50. As the Biden Administration defines its policies vis-à-vis Turkey, the state of play in Turkish-American relations remains in flux. On the one hand, Erdoğan knew that President Trump was inclined to give him considerable latitude in his increased authoritarianism, and the team of "old Obama hands" that has accompanied Biden into office is viewed by Erdoğan with suspicion. In addition, even before Biden's election over Trump, as Ian Lesser has observed: "The U.S. factor has been at the center of Turkey's policy vis-à-vis the Kurds in Syria, and more broadly in the context of Turkish mistrust of allies in general. Dismal Turkish public attitudes toward the United States are now widely shared across the political spectrum."⁴⁵⁵

⁴⁵³ Barçın Yinanç, on-the-record statement during German Marshall Fund of the United States webinar "On Turkey" series, May 1, 2020.

⁴⁵⁴ Fatih Ceylan, "A Proposed Framework for a New Strategic Concept for NATO," *Turkish Center for Economics and Foreign Policy Studies (EDAM) Foreign Policy & Security* 2020/02/EN, May 2020, 2.

⁴⁵⁵ Galip Dalay, Ian Lesser, Valeria Talbot, and Kadri Tastan, "Turkey and the West: Keep the Flame Burning," German Marshall Fund of the United States Policy Paper, June 2020, No. 6, 11.

On the other hand, continuation of its DCA responsibilities, even at lower readiness levels, has historically been seen by Turkey as an enduring “bond” or offset that helps maintain its “strategic alliance” with the United States in the face of strains that have repeatedly arisen in the bilateral relationship, including Turkey’s opposition to the American demand to use Incirlik as a staging base for the invasion of Iraq the 2002 and recurring disputes over Cyprus.⁴⁵⁶ In 2021, Turkey remains a robustly-contributing NATO member, having assumed on January 1st the responsibility for the year ahead of providing the VJTF rapid reinforcement brigade. On February 2d, Presidential Spokesman Ibrahim Kahn and Biden’s National Security Advisor, Jake Sullivan, agreed to redouble efforts to resolve the S-400/F-35 issue.⁴⁵⁷ Moreover, as noted, in late February, Erdoğan told a television interviewer that he wanted a “win-win” relationship with the United States. That said, Turkey continues to play the Russian arms procurements “card” to try to leverage the United States into a more lenient acceptance of its S-400 purchase.⁴⁵⁸

6.10.3.5. Ranking/Status within NATO

Full effect: 1.0. Turkey very clearly sees its participation in the DCA nuclear mission as proof of its *bona fides* and full commitment to fair burden-sharing. It takes pride in its privileged position within the NPG/HLG and would not accept any DCA status lower than that enjoyed by Greece.

“Con” Opting-In		“Pro” Opting-In	
	Factor Weight		Factor Weight
Extra Cost	.25	Balance of Threat	.75
Domestic Opposition to nuclear weapons	0	Transatl. Alignment	.50
		NATO Ranking/Status	1.0
total	.25	total	2.25

Table 25: Turkey: Summary of Independent Variable Interactions

⁴⁵⁶ Kibaroglu, 96.

⁴⁵⁷ “Turkey, US Agree to Increase Efforts to Solve S-400 Row,” *Daily Sabah*, February 2, 2021.

⁴⁵⁸ “Turkey to Go Ahead with Russian Weapons Purchase Despite US Objections,” *Voice of America – English*, May 17, 2021.

CHAPTER SEVEN

CONCLUSIONS

The dissertation has shown that in addressing the research question “why do some U.S. allies with modern fighter aircraft elect to participate in DCA when others who are eligible to do so do not?,” the answer is not that those allies who join in are more vulnerable to U.S. or NATO pressure or coercion to participate. To the contrary, the dissertation has shown that DCA participation is intentionally exempted from the normal “3 C’s” burden-sharing monitoring and enforcement mechanisms within the Alliance. Moreover, most senior U.S. national security officials apparently cannot name which allies are in DCA and which are not. In effect, then, DCA can best be described as a “coalition of the willing” within NATO, and participating in this nuclear tasking is, with the important exception of Germany, regarded as voluntary or discretionary.

This finding leads, then, to a second conclusion: that eligible and capable allies decide whether to participate based on their own sovereign calculations of a complex multicausal framework of factors “pro” and factors “con.” The dissertation contends that these intersecting factors can be summarized as shown below:

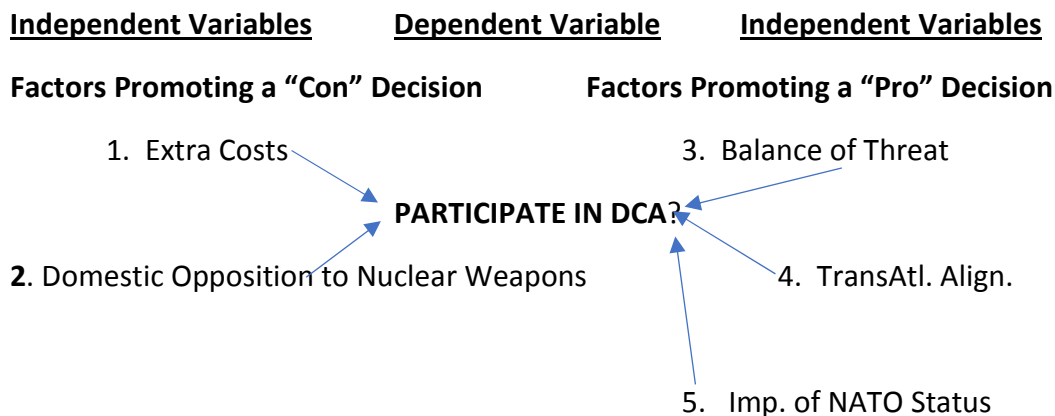


Figure 18: IVs/DV Multicausal Framework

Comparing the 11 cases, the binary DV outcomes (each of the 11 allies is assessed as either being “in” DCA or “out”) suggest that there are two distinct groupings of common IV interactions: one grouping which constitutes a principal “pathway” to opting in on DCA, and another which constitutes a principal “pathway” to opting out. The Table below compiles the data assigned to the five IVs in each of the 11 cases. Not surprisingly, in each case where the aggregate of

the values from the three “external” IVs (which favor a “pro” decision) are greater than the aggregate of the values from the two “internal” IVs (which favor a “con” decision), the ally decided to participate or continue to participate in DCA, and vice versa. It is important, though, to look beyond these aggregates to identify common denominators among each grouping; i.e., for those that opt-in and those that opt-out.

Ally	EC	DO	Σ EC+DO	BT	TA	NR	Σ BT+TA+NR	Δ
Belgium	.25	.75	1.0	.50	.75	1.0	2.25	+1.25
Canada	1.0	1.0	2.0	.25	0.0	0.0	.25	-1.75
Denmark	.50	1.0	1.50	.50	0.0	0.0	.50	-1.00
Germany	.25	1.0	1.25	.25	.75	1.0	2.0	+0.75
Greece	.25	.50	.75	.25	1.0	1.0	2.25	+1.50
Italy	.25	.50	.75	.25	1.0	1.0	2.25	+1.50
Netherlands	.25	.50	.75	.50	1.0	1.0	2.50	+1.75
Norway	1.0	1.0	2.0	.50	.25	0.0	.75	-1.25
Portugal	1.0	1.0	2.0	.25	.25	.25	.75	-1.25
Spain	1.0	1.0	2.0	.25	.25	.25	.75	-1.25
Turkey	.25	0.0	.25	.75	.50	1.0	2.25	+2.00
̄ DCA allies	.25	1.17	.79	.42	.83	1.0	2.25	+1.46
̄ non-DCA allies	.90	1.0	.95	.35	.15	.60	.60	-1.30

EC=Extra Cost; DO=Domestic Opposition to Nuclear Weapons; BT=Balance of Threat; TA=Transatlantic Alignment; and NR=Importance Attached to Standing/Ranking within NATO

Table 26: IV Scores and DV Outcomes

These results suggest two hypotheses in response to the research question: The first hypotheses reflects the principle factors among the DCA participants that these allies have in common. The second hypothesis follows from the principle factors common to those allies who choose to opt-out of DCA.

7.0. Pathway to Opting-In

Ally	EC	DO	Σ EC+DO	BT	TA	NR	Σ BT+TA+NR	Δ
Belgium	.25	.75	1.0	.50	.75	1.0	2.25	+1.25
Germany	.25	1.0	1.25	.25	.75	1.0	2.0	+0.75
Greece	.25	.50	.75	.25	1.0	1.0	2.25	+1.50
Italy	.25	.50	.75	.25	1.0	1.0	2.25	+1.50
Netherlands	.25	.50	.75	.50	1.0	1.0	2.50	+1.75
Turkey	.25	0.0	.25	.75	.50	1.0	2.25	+2.00

(principal determinants con and pro in yellow)

Table 27: Pathway to Opting-In

Of the six U.S. NATO allies assumed in this dissertation to be DCA participants, five (Belgium, Germany, Greece, Italy and the Netherlands) are consistent in placing high value on their status/ranking within NATO (NR), in maintaining a transatlantic alignment in which they “hedge” their dependence on the United States by playing strong roles within the EU, and in viewing the Russian threat in milder degrees, mainly because they are not convinced that its intentions are offensive vis-à-vis NATO allies themselves. In these five nations there is a high degree of domestic opposition to nuclear weapons, but the extra costs are low relative to their mid-range defense budgets. For these five, the weight of the factors favoring using DCA to achieve their external goals vis-à-vis NATO and the United States exceeds that of the factors that tend to make an ally disinclined to participate in this mission.

In addition to these considerations, Germany’s participation in DCA is also uniquely a function of its position as the “lynchpin” of the European DCA posture, which puts it on the receiving end of strong pressure from the United States and NATO to remain in the program. Beyond that, Germany, again uniquely, must deal with the reality that what it does matters not just to the United States, but to the “mid-sized” and smaller allies that typically take their cue from her. All allies may be equal within NATO, but some allies are more equal than others.

The outlier among the six is Turkey. Although Turkey is an Applicant nation for EU membership, its bid is widely seen as stalled, and in recent years Turkey and the EU have grown increasingly estranged. Notwithstanding its S-400 purchase, which has generated its own significant strains with the United States, Turkey’s perception of Russia as a threat is higher. The explanation would appear to lie principally in its history (having fought 17 major wars with Russia) and geography

(it is much more spatially proximate to Russia than any of the other five). In addition, Erdoğan's authoritarian rule and great power aspirations (cast in terms of re-asserting the prestige and power of the former Ottoman Empire) significantly lessen domestic opposition to nuclear weapons. Indeed, he has equated nuclear weapons with achieving such status on the world stage.

7.1 Pathway to Opting-Out

Ally	EC	DO	Σ EC+DO	BT	TA	NR	Σ BT+TA+NR	Δ
Canada	1.0	1.0	2.0	.25	0.0	0.0	.25	-1.75
Denmark	.50	1.0	1.50	.50	0.0	0.0	.50	-1.00
Norway	1.0	1.0	2.0	.50	.25	0.0	.75	-1.25
Portugal	1.0	1.0	2.0	.25	.25	.25	.75	-1.25
Spain	1.0	1.0	2.0	.25	.25	.25	.75	-1.25

(principal determinants highlighted in yellow)

Table 28: Pathway to Opting-Out

Of the five U.S. NATO allies who are DCA non-participants, four (Canada, Denmark, Norway and Portugal) have all five factors in common. They each:

- (1) Would face high degrees of extra costs to join DCA relative to their generally smaller (in the aggregate) defense budgets;
- (2) Have high degrees of domestic opposition to nuclear weapons;
- (3) Perceive the threat from Russia as only low-to-medium;
- (4) Maintain close bilateral alignments with the United States; and
- (5) Are able to utilize other institutional mechanisms to establish their ranking and status within NATO.

Neither Canada nor Norway belong to the EU, and Denmark has opted out of its security dimension, CSDP. Portugal for historical reasons tends to look more to the west – first to the UK and later to the United States – than to Europe for security guarantees, and it has viewed hosting NATO Command Structure headquarters on its soil as a principal means of holding status. Canada regards NORAD as the principal institutional framework for its special bilateral relationship with the United States. Denmark and Norway see their special responsibilities in the Arctic and their many contributions to other NATO missions and operations as establishing their security *bona fides* with Washington. The threat perceptions of Russia vary accordingly to spatial proximity, with medium effect in the Nordic countries and little effect for the more distant Canada and Portugal.

The outlier among these five is Spain. Spain has good relations with the United States, but it looks principally to Europe in framing its national security interests. Spain is an EU Member State in good standing who champions a deeper and broader integration. That said, Spain does value its ranking and status within NATO and resents its exclusion from consultative groupings there such as the Quad and the Big Five. The explanation, though, as to why Spain does not look to DCA to give it entrée to a higher consultative status (i.e., via the NPG/HLG) lies principally – as is the case with Turkey – in its history (remaining non-nuclear was an absolute condition for joining the Alliance in the first place) and its geography (Spain’s principal national security challenges are seen as being located to the south, in North Africa, and not to the east).

7.2. Cross-Check using Fuzzy Set QCA (Stata)

Recognizing that the small sample size (n=11) limits its value as a validation check, the coefficients between the six variables obtained from running pairwise correlations on Stata are broadly consistent with the empirical findings. These results indicate that the main factors in an ally’s opt-out decision are extra cost and domestic opposition to nuclear weapons and the main factors associated with opting-in are a desire for status or ranking within NATO and a transatlantic alignment that is oriented more towards Europe than bilaterally with the United States. Russian threat perceptions play a less significant role.

	1	2	3	4	5	6
1 DCA Dummy	1					
2 Extra Cost	-0.8838*	1				
3 Dom. Opposition	-0.6708*	0.6587*	1			
4 Russia Threat	0.2909	-0.3056	-0.542	1		
5 Transatl. Alignment	0.8237*	-0.7832*	-0.5667	-0.0503	1	
6 Imp. of NATO Status	0.9416*	-0.8794*	-0.7018*	0.1383	0.9160*	1

Table 29: QCA Correlation Coefficients⁴⁵⁹

⁴⁵⁹ Stata Command Coding: `pwcorr dca_dummy extra_cost domestic_opposition Russia_threat transatlantic_alignment nato_status_importance, star(5).`

7.3. Implications for IR Theory

IR theory places high value on integrated frameworks, frameworks that highlight the complex interplay of relevant internal and external factors in their inter-relationship. In the context of Osgood's definition, this dissertation examined in 11 case studies how this specific "latent war community" has since Crimea defined its members' "specified obligations" to participate, or not, in its DCA nuclear-sharing arrangements, and how the Alliance has assessed and reacted to its allies' "fidelity" to these obligations, in terms of generally-accepted definitions in the IR literature of "burden-sharing" versus "free-riding." The dissertation found that there were no "specified obligations" regarding DCA, hence each ally was "free" to decide based on considerations both internal and external whether to participate in this nuclear task or not, as was illustrated in Figure 9.

Nonetheless, a minimally-sufficient number of allies do choose voluntarily to participate, providing for a minimally-sufficient posture, in both political and military terms. The French have an expression – perhaps apocryphal – that is often cited, somewhat derisively, at NATO: "well, it may work in practice, but does it work in theory?" This dissertation has shown that the current nuclear-sharing arrangements at NATO *work in practice*. It also concludes that DCA *"works in theory."* Put differently, DCA as supported and maintained by allies in practice lends support to several leading hypotheses concerning alliance "free-riding" within the body of IR theory. These includes theories relating to the collective action pure public goods model, alliance membership, alliance management, balance of threat formulation, and domestic constraints models. On the other hand, this dissertation contends that its analysis of DCA reveals some other leading IR hypotheses that are impugned or simply non-applicable. These include theories relating to alliance sustainability and the collective action joint product model.

7.3.1. Collective Action Pure Public Goods Model

This dissertation began with definitions of "burden-sharing" and "free-riding," respectively, taken from IR theory: "the distribution of costs and risks among members of a group in the process of accomplishing a goal"⁴⁶⁰ and "enjoying a public good without paying for it."⁴⁶¹ RAND contends that: "Nuclear deterrence ... can be considered a *pure public good* because it meets the two conditions of

⁴⁶⁰ Stephen J. Cimbala and Peter Forster. *The U.S., NATO and Military Burden-Sharing* (New York: Routledge, 2005), 1.

⁴⁶¹ Mallory, Germanovich, Welburn, and Smith, 19. This report contains a useful summary of how three principal schools of IR thought have addressed burden-sharing as a theoretical construct: realism (Waltz, Walt. Et.al.), collective action theory (Olson and Zeckhauser), and the joint product model (Murdoch and Sandler), 21-22.

being nonexcludable and non-rivalrous.”⁴⁶² “Non-excludability” means that it is virtually impossible to deny allies who did not contribute to this public good from enjoying its benefits. “Non-rivalrous” means that the public good is not a “zero sum game,” i.e., one ally’s enjoyment of its benefits does not have to come at the expense of another’s. In this context, Jordan Becker has argued that the central question with regard to “burden-sharing” as practiced by NATO is “how to *share the costs* of the provision of public or collective goods.”⁴⁶³

Consistent with the pure public goods model, it is assumed that the *larger* members of an alliance will “bear a disproportionate share of the burden.”⁴⁶⁴ This is certainly the case with nuclear deterrence in NATO once the strategic level is factored in. All allies agree that the “supreme guarantee” underpinning NATO deterrence is the strategic nuclear forces of the United States, and they also acknowledge the additional deterrent role played by the independent nuclear deterrents of the UK and France. Given the U.S., UK and French investments in these independent strategic nuclear capabilities compared to DCA, total spending on nuclear forces across the Alliance falls overwhelmingly, and thus “disproportionately,” on these three allies. Moreover, even within DCA, the United States not only assumes the multi-billion cost of producing the B-61 bombs and maintaining custody of them, it too provides dual capable fighters, F-15E “Strike Eagles” stationed in Europe, for this NATO mission.

In line with this theoretical framing of “free-riding,” the vast majority of NATO’s 30 members (21) are unquestionably “free-riders” when it comes to the DCA mission. The United States, UK and France, as noted, are obviously not “free riders.” In addition, the 6 U.S. allies this dissertation has considered as DCA participants (Belgium, Germany, Greece, Italy, the Netherlands, and Turkey) are also spending significant portions of their defense Euros and Lira in contributing to this “pure public good.” Hence they too cannot be accused of “free-riding.”

This is clearly not the case with the other 21 members. 14 of these 21 (Albania, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Montenegro, North Macedonia, Poland, Romania, Slovakia and Slovenia) have joined NATO since the Cold War ended and are specifically excluded from nuclear tasks by Alliance policy under the “3 no’s.” Yet each of these 14 enjoy the same benefits of extended nuclear deterrence from the US, UK and France, and from DCA in-theater as well, as any of the 9 allies that are active in assuming

⁴⁶² Mallory *et. al.*, 19-20.

⁴⁶³ Jordan Becker. “Transatlantic Burden-Sharing: Origins and Strategic Implications,” *Defence-in-Depth Research from the Defence Studies Department, Kings College London, Blog at WordPress.com*, November 15, 2011. (emphasis added)

⁴⁶⁴ Mansur Olson & Richard Zeckhauser, “An Economic Theory of Alliances,” *Review of Economics and Statistics* 48 (3), 1966, 268.

nuclear responsibilities. As President Obama said, forcefully, in Tallinn in 2014: “We will defend our NATO allies, and that means every Ally.”⁴⁶⁵

Though “free-riding” in the sense that they all enjoy the benefits of this pure public good, these 14 cannot be labelled as “burden-shifters” or “buck passers,” since it is not of their choice that they are excluded from participating in NATO’s nuclear posture. Indeed, at least one – Poland – has made clear its interest in joining DCA with the F-35s it is acquiring, were NATO policy to change. There are 2 allies (Iceland and Luxembourg) that are simply too small to have air forces with modern fighter aircraft, and thus they, too, have no option for participating in DCA.

Then there are the remaining 5 (Canada, Denmark, Norway, Portugal and Spain) that do have modern air forces and are not excluded from participation under the “3 no’s” policy. They, too, are “free-riders” in that they enjoy the benefits of this pure public good, and they are so by choice. Nonetheless, as elaborated in the case studies, these 5 allies clearly contribute to the Alliance in many other significant ways. Each has found a niche, or a role specialization, that allows it to say, and to say with some credibility, that they are “punching above their weight.” They would all, I am sure, concur in the sentiment expressed by Prime Minister Diefenbaker of Canada who, at the first NATO Summit in 1957, declined to immediately embrace Eisenhower’s atomic stockpile and IRBM offers and said:

The best way for the Alliance to build up the collective military strength required by its defensive strategy was for each member country to make the type of contribution best suited to its resources and capabilities, a fundamental principle long accepted by NATO as a doctrine and which in fact guided the Canadian effort.⁴⁶⁶

Each of these 5 allies has identified, and committed forces and resources to, other NATO operational domains of importance (e.g., Arctic defense, contributing to “out of area” operations and missions, countering terrorism, migration flows, and non-nuclear threats from the south, , etc.), and therefore none can be accused of “buck passing” or “burden-shifting,” as those terms are normally understood in IR theory.⁴⁶⁷ Measured against Thies’ formulation - “maneuvering for advantage, in the sense of burdens avoided by shifting them to someone else ... think[ing] long and hard about how to coax an expanded effort from partners and/or deflect[ing] pressures from the others for an increased effort by their own state” – none can reasonably be accused of acting with such “beggar your neighbor” intent.

⁴⁶⁵ “Remarks by President Obama to the People of Estonia.”

⁴⁶⁶ *NATO 1957 Summit*, 32.

⁴⁶⁷ See Appendix 6 for a tabulation of which NATO operations each of the 11 allies examined in this dissertation participate.

Given the negative connotations normally attached to the term “free-rider” - including as it has been employed derogatorily within NATO when an ally falls short of its burden-sharing obligations with regard to “cash, capabilities, and contributions” - the 21 allies who are not participating in nuclear tasks are naturally a bit defensive. Some might claim that since they are transferring some national funds to DCA-related NSIP common-funded infrastructure and C2 programs, they *are* “contributing to this pure public good.” But the amount of cash being paid to NATO in this respect by these 21 allies is extremely modest, and only a small fraction of their own defense budgets, let alone of overall spending Alliance-wide that is related to nuclear deterrence. To give a sense of perspective here, consider that the United States will most likely spend \$1.36 trillion over the next 10 years to modernize its strategic nuclear Triad, and tens of billions more on the B-61 Mod 12 and F-35 nuclear upgrade, while Spain’s allocation of DCA-related NSIP expenses under its roughly 6% cost share would be measured in less than a million Euros in any NCCRS modernization package.⁴⁶⁸ The UK and France will spend tens of billions on nuclear deterrence in the coming decade as they pursue, respectively, the Trident and SNLE (sous-marin nucléaire lanceur d’engin) programs.

These 21 allies might also claim that they assume “costs” related to nuclear deterrence because they join consensus in the NAC or NPG on decisions that are foundational in regard to the Alliance’s nuclear policies and posture, and hence are, in Paul Schulte’s term (cited in Chapter One), “complicit.” But there is a difference between “cost-sharing” and “risk-sharing.” The latter were assumed when each of these nations made the original decision to join this collective security treaty organization.

7.3.2. Collective Action Joint Product Model

A competing theoretical explanation to the pure public goods model within the domain of collective action is the joint product model. This IR theory holds that although some members may recognize that given the large and disproportionate contributions of the larger members, what they can contribute will not appreciably add to the strategic effect of the Alliance in a specific operational area, they do so anyway because it has consequences that specifically benefit their own country. In short, it produces “excludable” benefits, unlike in the pure public goods model.

The conduct of DCA in NATO impugns this theory. That is because allies participating in this nuclear-sharing arrangement gain no tangible benefit from

⁴⁶⁸ “NATO Common Funded Budgets and Programmes Cost Share Arrangements Valid from 1 January 2021 to 31 December 2024,” NATO IS hand-out, 2020. Estimate of NATO Nuclear Command and Control System program costs from interview, US1.

DCA that is excludable. They do not gain independent access to nuclear weapons, since the B-61 bombs remain under strict U.S. custody at all times, and if released for delivery by the U.S. President in accordance with a decision of the NAC, their role is simply to deliver the weapon. In addition, DCA does not itself result in a modern fighter aircraft that can be used by that ally for non-NATO missions or operations of benefit only to that one ally (e.g., UK air operations in the Falklands War) because, as shown, allies can operate DCA-capable aircraft without equipping it for nuclear delivery. In short, the acquisition of this type aircraft itself is what provides a “joint product,” and not that ally’s modification of that aircraft for the DCA mission.

7.3.3. Alliance Membership Theories

This dissertation also reinforces certain IR theories regarding alliance membership. These include George Liska’s and William Riker’s premises that allies’ decisions to join and remain in alliances can be attributed to their own sovereign and independent calculation that the “marginal utility” of membership is greater than the benefits they might reasonably assume would follow from acting to deter and defend against adversaries unilaterally.⁴⁶⁹ Nations’ decisions to join alliances, in Liska’s view, are for reasons of *security, stability and status* and are taken within the context of a *shared alliance ideology*. The dissertation has shown that a key principle within NATO’s *shared alliance ideology* is the rule of consensus; that is, the relative freedom of action that all NATO members have owing to every ally’s right to veto. The dissertation has noted the single area within NATO in which that rule does not apply: the “consensus minus one” procedure for imposing a Capability Target on a reluctant ally. Notably, there is no NATO “override” of an ally’s right to decide its own position on DCA.

Karl Deutsch’s characterized NATO as a large, *pluralistic* security community in which separate governments retained *legal independence*.⁴⁷⁰ Those qualities – pluralism and legal independence – are crucial in explaining, at least in part, why no ally, once it has acceded to membership, has ever chosen to leave.⁴⁷¹ A second key principle is public support. Although there have been episodes

⁴⁶⁹ George Liska, *Quest for Equilibrium: America and the Balance of Power on Land and Sea* (Washington, DC: Johns Hopkins University Press, 1977). William Riker, *The Theory of Political Coalitions* (New Haven: Yale University Press, 1962). (emphasis added)

⁴⁷⁰ Deutsch, Karl, *Political Community and the North Atlantic Area* (Princeton: Princeton University Press, 1957).

⁴⁷¹ Although there has been some speculation the past few years that Turkey under President Erdogan’s increasingly confrontational policies might opt to exit from NATO, this has not happened. Speaking on the 69th anniversary of his country’s accession to the Alliance, the Turkish Defense Minister, Basat Ozturk, praised NATO as a valuable and important partner and added: “Although we have different opinions with some allies, in the end, NATO is a platform to address these differences.” (Iclal Turan, “NATO Must Respect Security Concerns of Each Ally,” Tugrul Can, February 18, 2021).

during which an ally's society turned sharply negative concerning NATO (including 1966, when France decided to leave the Integrated Military Command, 1974, when Greeks blamed NATO for not supporting their country in the wake of the Turkish invasion of Cyprus, and 2016-2020, when German public opinion turned against America during the Trump era), in each case, the pendulum swung back toward renewed support. Indeed, a late-2020 poll by Pew indicates that on average across NATO's 30 member states, a "favorable" opinion of NATO is held by 60% of citizens, with France at the low end (50%) and Denmark at the high end (79%).⁴⁷²

7.3.4. Alliance Management Theories

As noted in the Introduction to this dissertation, "In the quest for security, alliances may have to be made; once made, they have to be *managed*."⁴⁷³ Alliance membership, as Pfaltzgraff and Dougherty point out, entails "an extensive and continuing bargaining process designed to maximize shared interest and to cope with security challenges posed by the enemy" in which "Allies have the twin fears of defection and realignment, or what has been termed by [Glenn] Snyder as abandonment and entrapment."⁴⁷⁴ Snyder defined "abandonment" as a situation in which an ally realigns with an adversary of the alliance or fails to help when the alliance is threatened or attacked by that adversary.⁴⁷⁵ He defined "entrapment" as a situation in which an ally becomes emmeshed in another ally's or other allies' conflict with an adversary but the issue or issues in dispute are not central to that ally's interests. Other scholars prefer to use the word "entanglement" in lieu of "entrapment."⁴⁷⁶ The "security dilemma," Snyder contends, is that reducing one risk tends to increase the other. For example, pledging absolute fealty to the ally that leads the alliance will reduce the risk of being abandoned, but it clearly increases the risk of becoming entrapped in a conflict in which the leader is engaged. On the other hand, an

⁴⁷² "NATO Seen Positively by Many in 10 Member States," Pew Research Center, November 30, 2020.

⁴⁷³ Waltz, TIP, 166 (emphasis added).

⁴⁷⁴ Dougherty and Pfaltzgraff, 535.

⁴⁷⁵ Glenn Snyder, "The Security Dilemma in Alliance Politics," *World Politics* 36 (July 1984), 461-496.

⁴⁷⁶ "Entanglement" harks back to George Washington's famous admonition in his Farewell Address following his 2d term as President that the United States should avoid "permanent alliances" that would draw it unwillingly or unwittingly into foreign wars (note: he did not actually say the word "entangling"). For a comprehensive review of the U.S. experience in alliances as it has resulted either in "entanglement" or "freedom of action," see: Michael Beckley, "The Myth of Entangling Alliances: Reassessing the Security Risks of U.S. Defense Pacts," *International Security*, Vol. 39, No. 4 (Spring 2015): 7-48.

ally's decision to maintain its distance from the leader clearly reduces the risk of entrapment, but it also increases the risk of abandonment.

In their repeated efforts to pummel the allies into submission (i.e., to demonstrate better performance) on the 2% defense spending issue, President Trump and senior officials in his administration repeatedly threatened "abandonment" both implicitly and explicitly. For example, in directing the Pentagon to reduce U.S. troop strength by 12,000 in 2020, President Trump was sending a clear message: spend more on defense or more troops could be withdrawn. That message was also aimed at a wider audience within the Alliance. As one former Trump NSC staffer wrote, "a politically brutal attack on Germany can only endanger transatlantic relations altogether; increasingly, that appears to be the goal of the administration."⁴⁷⁷ Earlier in the year, the President's Ambassador in Berlin, Richard Grenell, had taken aim at statements by SPD spokesmen and party leaders critical of Germany's continuing role in DCA, asking in an op-ed published by *Die Welt*: "Will Germany bear this responsibility, or will it sit back and simply enjoy the economic benefits of security provided by its other allies?" The U.S. Ambassador in Warsaw, Georgette Mosbacher, quickly chimed in, Tweeting the next day: "If Germany wants to diminish nuclear capability and weaken NATO, perhaps Poland – which pays its fair share, understands the risks, and is on NATO's eastern flank – could house the capabilities here."⁴⁷⁸

Though resented, these threats did seem to have an effect, at least in the near-term. Allies, both individually and collectively, chose to spend more. Germany, for one, in August 2020 increased its defense spending more than 3% from the previous year, to a record €53 billion. No allies were abandoned, and none chose to leave the Alliance. This outcome can, in my view, be best explained by reference to Snyder's concept of allies continuously seeking to maintain an optimum balance between "entrapment" and "abandonment." With the exception just noted of Germany, allies have *not* been threatened on DCA participation. They do not face adverse consequences for not joining. And most senior U.S. national security officials apparently cannot even identify which allies are in DCA and which are not. Given this reality – and the long-standing nature of this reality, dating back to Eisenhower – allies can prioritize insuring against "entrapment" without a concomitant increased risk of "abandonment."

⁴⁷⁷ Richard D. Hooker, Jr., "A Potentially Deadly Blow to NATO," *Defenseone.com*, September 29, 2020.

⁴⁷⁸ "Poland Would Gladly Host American Nukes if Germany Refuses, US Envoy Claims, Fanning 'Cuban Missile Crisis 2.0,'" *RT World News*, May 16, 2020.

For six of the 11 allies, prioritizing the avoidance of entrapment has meant participating in DCA so as to better be in a position to exert a moderating influence on U.S. nuclear decision-making. DCA gives an ally a seat at that NPG/HLG table. For the 5 others, more trusting of the United States' ultimate prerogative in this domain, the price to be paid to be so positioned (i.e., the price of joining DCA), as measured in terms of extra costs and the flaunting of domestic opposition, is deemed simply as too high. Assuming, then, their threat perception of Russia is low and their ambitions regarding status/ranking within NATO can be achieved by means other than DCA, then their leaders' relative "autonomy" to keep faith with the preferences of their civil societies on nuclear matters will likely prevail.

Echoing Mark Twain's famous quip, "the reports of my death have been greatly exaggerated," ardent transatlanticists tend to react with a wry smile whenever a pundit or theoretician proclaims the imminent demise of the Alliance. Walt and Meirshimer both predicted NATO would wither away once the Cold War ended. Years earlier, Kenneth Waltz argued that nuclear weapons would "make alliances obsolete." To be fair, there were many unknowns at the dawn of the nuclear age, and what seems obvious to us now in hindsight concerning alliance behavior in the face of nuclear deterrence was still very much speculative in the 1950s. As Brodie, George and Iklé wrote in 1960:

In the nuclear age, the ancient institution of the military alliance operates under novel burdens, and we have as yet relatively little idea how it will work under these burdens in a serious crisis. In the past, a nation risked less in honoring its alliance obligations than it does today, because then it had a limited-liability obligation while at present, given the nature of nuclear war, its obligation is virtually unlimited.⁴⁷⁹

Obviously, none of the more pessimistic predictions about NATO's ability to remain relevant have been validated. To be sure, NATO has faced serious crises in its 70+ years of existence. But time and time again, it has found a path through such challenges and remains today the most successful alliance in history. The Alliance's adaptability and longevity thus impugns some theories prevalent in the IR academy that tended to portray post-Cold War NATO as an institution in permanent crisis. Liska and Riker contended that alliances tend to disband once their purpose is served. However, NATO has found new purposes for dealing successfully with new and evolving security environments. The imminent demise of DCA has also been predicted since Crimea, including Emmanuel Macron's assertion in 2019 that the Alliance was "brain dead." Yet NATO leaders, including Macron, continue to define the Alliance as essential, and enough participants continue to contribute as to ensure it works in practice.

⁴⁷⁹ Iklé, Speier, Brodie, George, Hsieh, and Kramish, 2.

This dissertation has shown that NATO *consciously excludes* “nuclear” from its well-established and institutionalized burden-sharing monitoring and enforcement mechanisms, as constituted in recent years by the “3 C’s” paradigm. With the exception of Germany (who does participate in DCA), an ally’s decision to opt-in or opt-out of DCA is seen by all as voluntary or discretionary. By avoiding over any effort to achieve universal, or even wider, participation in DCA, NATO shields its solidarity and cohesion from what would surely be a contentious, divisive and potentially futile debate. Hence the *laissez-faire* approach to DCA contributes to the continued relevance, viability and sustainability of the *treaty itself*. As Brodie, George and Iklé observed in 1960, “the cohesion of the alliance” was more important than “the agreement itself.”

7.3.5. Balance of Threat Theory

This dissertation has shown that *in the aggregate* NATO action on DCA is supportive of Walt’s formulation on balance of threat. There is a consensus within the Alliance that Russia’s power is significant, that it has structured its conventional and theater-nuclear forces to optimize offensive warfare, and that its behavior in illegally annexing the Crimea and intervening militarily in eastern Ukraine gives rise to serious concern about the threat it represents to the Alliance, including in particular those allies more geographically near to Russia. That said, the analysis of the 11 cases is not necessarily consistent with the balance of threat model. In part, this is because some of the 11 hold views about Russia’s intentions far more benign than others. In addition, some of the 11 who have decided to opt out of DCA are located closest to Russia. And finally, there is the political reality that within NATO, the most “hardline” views regard Russia’s power, offensive capability and intentions are held by “new” allies (i.e., those admitted after the Cold War ended) who are ineligible to participate in DCA under NATO’s “3 no’s” policy. An interesting finding in the dissertation’s analysis is that several of the allies that do participate in DCA justify that participation, at least in part, by arguing that if they were to drop out, there would inevitably be pressure from Poland, and perhaps other “new” member states, to participate, and that would be deeply alarming to Russia.

7.3.6. Domestic Constraints Theory

In a strategic environment in which an alliance is not *at war*, or where aggression against that alliance is deemed possible but not likely, and hence “latent,” strategy and defense planning must take place in what has been called a “fog of

peace.”⁴⁸⁰ This “gray zone” presents strategists and defense planners with particular challenges. Jordan Becker and I have argued elsewhere that in such an environment, strategy and defense planning in NATO nations respond *less* to external geostrategic dynamics than to dynamics internal to the individual country and the Alliance itself.⁴⁸¹ As Colin Gray observed: “Strategy is always subject to a domestic, and possibly allied, audit on criteria far removed from strict military-strategic utility.”⁴⁸² In the fog of peace, this domestic and allied audit of burden-sharing is, as H.R. McMaster has noted, the nearest approximation of a “final audit” of preparation *for war*.⁴⁸³

This “internal” audit relates to what Bennett, Leggold and Unger termed “state autonomy” vis-à-vis “domestic society.” Their hypothesis was that the degree of burden-sharing contributions by an ally can be explained, at least in part, on the basis of the existence, or not, of that state’s “autonomy with respect to the preferences of civil society, most often reflected by legislators” as it is engaged “within particular issue areas.”⁴⁸⁴ Across its 11 case studies, this dissertation has made subjective assessments of each of the DCA allies’ degree of domestic opposition to nuclear weapons. The “domestic audit” of burden-sharing, together with an ally’s calculation of the extra financial cost of participation, are in effect the two “internal” factors bearing on the DCA decision.

7.4. Implications for U.S. Policy

As Joseph Biden completes his first five months in office, the dissertation closes by drawing a number of implications for U.S. policy.

A first order of business for the new Administration has been to restore the sense of trust, confidence, mutual respect and commitment to a consultative approach that had distinguished NATO across the near-seven decades before the election of President Trump, and with Trump’s presidency, the adoption of a far more transactional and skeptical U.S. approach. President Biden appears to have made a very good start in this regard. In February 2021 he addressed his NATO counterparts directly via a virtual Munich Security Conference appearance in which he described America’s commitment to Article 5 as “a guarantee” and

⁴⁸⁰ Jordan Becker and Robert Bell, “Defense Planning in the Fog of Peace: The Transatlantic Currency Conversion Conundrum, *European Security*, 29:2, January 20, 2020, 125 <https://doi.org/10.1080/09662839.2020.1716337>.

⁴⁸¹ *Ibid.*, 125-148.

⁴⁸² Colin S. Gray, *The Strategy Bridge: Theory for Practice*, (Oxford: Oxford University Press, 2010).

⁴⁸³ H.R. McMaster, “Learning from Contemporary Conflicts to Prepare for Future War,” *Orbis*, 52 (4), 564-584.

⁴⁸⁴ Bennett, Leggold and Unger, 45.

“our unshakable vow.”⁴⁸⁵ This message was further underscored in phone calls he quickly made with his major allied counterparts, in reassurances delivered in person at Defense and Foreign Affairs Ministerials in Brussels in March delivered by Biden’s Secretaries of Defense and State, and by Biden’s statements at the June 14th Summit in Brussels. That said, more will be required. As a recent Task Force of former senior U.S. and allied leaders concluded: “If Washington is to reestablish its credibility, it will take time and great effort on the part of both the United States and its allies to rebuild confidence in their joint framework for collective defense.”⁴⁸⁶

In the strained post-Crimea/Ukraine era of NATO-Russia relations, with Putin’s Russia also blamed by NATO for effectively terminating the INF Treaty by deploying an illegal INF-range nuclear cruise missile and modernizing and expanding its non-strategic nuclear weapons inventory across-the-board, eliminating NATO’s remaining “countervailing” force – DCA - would seem out of the question, unless, that is, there should be a paradigm shift in Russia’s behavior and policies that might open the door to a future arms control process. That leaves open, though, the question of whether the B-61s need to remain forward-deployed. Most current and former U.S. and NATO officials interviewed for this dissertation believe that on purely military grounds, the answer would be no; that is, that a so-called theater nuclear posture based on crisis redeployment of the bombs to Europe or at-sea nuclear alternatives would be viable, but that the political considerations militating against such an action “trump” the military calculation.⁴⁸⁷ As one former SACEUR interviewed said, “If the United States alone is in DCA, NATO loses credibility as a nuclear Alliance. First, any withdrawal decision would have to be agreed by consensus, and it would fare better if it was in the form of a pan-European request rather than a unilateral U.S. *fait accompli*.”⁴⁸⁸

In this context, maintaining the status quo with the *current* forward-deployed B61 force with multiple allies participating in the DCA posture is seen by many in NATO as clearly necessary to balance the Russian threat. No consensus could be expected in the North Atlantic Council were the United States to propose to deploy *new* nuclear weapons types (e.g., new U.S. NSNW systems no longer banned by the lapsed INF Treaty) on European soil as a counter to Russia’s behavior and actions, hence NATO seems destined, for better or worse, to “play

⁴⁸⁵ “Remarks by President Biden at the 2021 Virtual Munich Security Conference,” White House Briefing Room: Speeches and Remarks, February 19, 2021.

⁴⁸⁶ Daalder, 2.

⁴⁸⁷ Interviews, US1, US2, A1, N1 and N2.

⁴⁸⁸ Interview, N2.

the hand it still holds.”⁴⁸⁹ For all five of the eligible and capable U.S. allies not participating in DCA, the likelihood of any now deciding to opt-in is remote at best. Thus, NATO’s focus will need to be on trying to preserve what it now has in DCA.

For all six U.S. allies considered as active DCA participants, the “pro” considerations supporting a decision to staying has to date been assessed as outweighing the “con” considerations. That said, for these allies, with the exception of Turkey, the margins are not that wide, and the balance for Germany between “in” and “out” considerations is particularly tight. One senior NATO official interviewed described the situation with regard to Belgium, Germany, Italy and the Netherlands as “precarious,” and cautioned that for all four it was “unclear” whether the governments’ position “will hold.”⁴⁹⁰ In sum, as one Obama official said, it is “quite possible” that support for forward-based DCA could be lost among all four of these allies.⁴⁹¹

Others interviewed agreed, especially were Trump to have been re-elected, New START were to have been allowed to lapse, and/or Germany were to decide to drop out. But Trump was not re-elected, the New START agreement has been extended, and Germany, or at least the CDU leadership, appears intent on staying in DCA. Hence some are more sanguine. One senior NATO official interviewed acknowledged the many challenges, but he expressed confidence “the F-35 and B-61 Mod 12 will be here to stay.”⁴⁹² It is also significant that the November 25, 2020 Report of the “NATO 2030” Reflection Group recommends that allies “should continue and revitalize the nuclear-sharing arrangements that constitute a critical element of NATO’s deterrence policy” – a recommendation that was reaffirmed in the June 14th Summit Communiqué.⁴⁹³

The history of NATO across its 72 years suggests the Alliance has been strong enough to absorb the defection on one, or even more, of its Member States from a key operational mission role. Under President de Gaulle, France withdrew from the integrated NATO Command Structure (though it later rejoined under President Sarkozy). Canada dropped a combat role in ISAF long before others, and not all allies bore the brunt of the heaviest fighting in its early years.

⁴⁸⁹ The Trump NPR, as noted, calls for R&D and procurement of three new NSNW types, but it does not propose to deploy any of these systems as nuclear systems, once available, on European soil – an option that was ruled out in the June 14th Summit Communiqué.

⁴⁹⁰ Interview, N1.

⁴⁹¹ Interview, US1.

⁴⁹² Interview, N2.

⁴⁹³ “NATO 2030: United for a New Era,” Report by the Reflection Group on NATO 2020 (PO(2020)0375), November 25, 2020, 13.

Germany and over half of the other allies chose not to participate in Operation Unified Protector (OUP) in Libya.⁴⁹⁴ The UK and Canada withdrew from DCA participation years ago.

Hence DCA as now constituted could likely survive the loss of a Belgium, Netherlands, Greece or Turkey. Were any of these DCA participants now to back out of this role, the overall nuclear posture would in all likelihood carry on as long as the remaining posture could credibly be described as “widespread.” But if two or more left at the same time, the strain on DCA would be severe. Whether the DCA posture could be sustained would largely depend on whether those remaining in the posture, especially Germany, stepped up and increased their roles, in terms either of the number of DCA aircraft and/or bases it might provide. For Germany to be expected, though, to assume the full burden would be highly unlikely, recognizing that in the past it has insisted it not be “singularized” in a nuclear role.⁴⁹⁵

Germany, then, is again clearly a special case. This is not only because of its pivotal role within NATO throughout its history on nuclear matters, but also because of “its central location, its political weight, and its economic and military potential.”⁴⁹⁶ As noted, President Trump’s condemnations over the defense spending issue have provoked resentments and alienation across the political spectrum in Germany, leading some German politicians to call for a total U.S. withdrawal. Without forward bases in Germany, NATO would be hard pressed to devise credible strike plans for its DCA force against notional Russian targets in the event of an Article 5 aggression. If the strike formation had to start its penetration mission from as far westward as Belgium or the Netherlands, the challenge of defeating Russia’s air and missile defenses would be greatly magnified. Moreover, if Germany should decide to opt out of any nuclear-sharing role, the domestic pressures in Belgium, the Netherlands and Italy would be significantly magnified. In short, an abandonment of DCA by Germany could precipitate a falling of other DCA dominos that could, potentially if not probably, constitute a “perfect storm” for NATO’s current nuclear posture.

In the case of Turkey, its complete withdrawal from DCA would actually be welcomed by many allies as a prudent step, in light of the growing

⁴⁹⁴ For an instructive examination of why some allies joined NATO’s operations in Libya and others did not, see: Tim Haesebrouck, “NATO Burden Sharing in Libya: A Fuzzy Set Qualitative Comparative Analysis,” *Journal of Conflict Resolution*, February 2016. This article is an excellent example of how the “fuzzy set” variant of QCA can be used to assess NATO burden-sharing issues.

⁴⁹⁵ In the 1979 NATO “double-track” cruise missile/PLI deployment decision, it insisted on “non-singularization,” i.e., that it not be alone in hosting such weapons. See Yost, 1411.

⁴⁹⁶ Brauss and Mölling, 5.

unpredictability of President Erdoğan's policies, his alarming turn towards authoritarianism, and his military incursion into northeastern Syria and intervention in Libya, not to mention concern about the vulnerability of nuclear weapons that open sources assert remain deployed at Incirlik airbase.⁴⁹⁷

Were Turkey to abandon its nuclear-sharing role, Greece might follow suit, since its main interest in DCA has been to demonstrate equivalence with its long-time antagonist. Alternatively, it might offer to take on nuclear support roles abandoned by its neighbor. For example, in the wake of Turkey's expulsion from the F-35 program due to its purchase of the S-400, Greece on November 6, 2020 formally submitted a Letter of Request to purchase the F-35, including seven aircraft that had been slated to go to Turkey.⁴⁹⁸

A major question related to the future of DCA, though, not to mention extended nuclear deterrence more broadly, concerns what action, if any, Biden will take with regard to his "sole purpose" convictions, as stated in his January 2017 Brookings speech and reaffirmed during the presidential campaign. Since Biden's initial priority concerning NATO has been to reassure allies of the enduring nature of America's commitment under Article 5, proposing a new formulation regarding the purpose of NATO's nuclear deterrent that many would equate with a "no first use" policy would be very divisive within the Alliance. As candidate, President Biden promised that such a shift in doctrine would not be taken absent thorough consultation with the U.S. military and alliance partners.

For NATO, these consultations will undoubtedly occur in the course of drafting its new Strategic Concept – a process that SYG Stoltenberg officially launched in February. Reaching consensus on this new overarching guidance will be challenging. A number of thorny issues beyond nuclear deterrence policy will test Alliance cohesion and solidarity. These include, most prominently, what policy and posture to take vis-à-vis China; to what extent should NATO's post-Crimea retrenchment vis-à-vis Russia be maintained; how long can NATO's Open Door policy on new members remain credible if Georgia and Ukraine are not admitted in the next few years; how can the Alliance be made "more political" in its orientation and increase the speed of its decision-making?

Compromises and trade-offs will certainly be necessary *within* each of these topics if unanimity is to be achieved, and if history is a guide, trade-offs *across*

⁴⁹⁷ See footnote 7.

⁴⁹⁸ "It's Official: Greece Requests Purchase of 5th Generation American F-35 Stealth Fighter Jets," Greek City Times, November 16, 2020 (<https://greekcitytimes.com/2020/11/16/greece-request-f-35-fighter-jet/>).

each of these topics may be required.⁴⁹⁹ For example, to secure allied backing for a firm line on China, the Biden Administration may need to forego seeking allies' agreement on the "sole purpose" issue or, should it be so inclined, to seek to withdraw B61s from their forward bases in Europe.

Another key building block of refining and updating NATO's overall strategy for addressing current and future threats will be implementing, ideally through increased common funding, the enhanced collective defense recommendations outlined in the "Concept for Deterrence and Defense of the Euro-Atlantic Area (DDA)," a Multi-Domain Operations (MDO) strategy paper NATO's current SACEUR, General Tod Wolters, persuaded Defense ministers to endorse in 2020. The DDA brings MC 400 and other critical defense planning documents together in MDO-oriented responses to several of the principal challenges NATO now confronts, including cyber, space, hybrid warfare and artificial intelligence. The DDA also addresses the Russian escalate-to-deescalate doctrine and how best to achieve coherence between the various GRPs.⁵⁰⁰ Decisions on DCA cannot be separated from decisions on these matters.

Last but not least, there is a clear imperative for the United States under President Biden to try to restore U.S. credibility in championing a "parallel" track on arms control, consistent with the 1967 Harmel Report. As President Trump's U.S. Ambassador to NATO, Kay Bailey Hutchison, reaffirmed in 2017: "if anything, the Harmel Report reminds us that a dual-track approach is still valid in NATO's work and that new perspectives on security and peace in Europe have to be combined with a strong Transatlantic link."⁵⁰¹ The arms control pillar of NATO's traditional dual-track came under particular stress during President Trump's four years in office, as the United States progressively withdrew from more and more treaties and international agreements (e.g., INF, Open Skies, and JCPOA). One former SACEUR interviewed described the "dual-track imperative" as follows:

NATO stood united 29/29 on the demise of INF, but the vote in the NAC was not easy. So leaders understood the narrative, but the Trump factor

⁴⁹⁹ In the negotiation of the DDPR during the Obama Administration in 2011-2012, the "grand bargain" that secured agreement between the United States and France was the U.S. acceptance of a "harder" line on the role of nuclear deterrence than it might otherwise have preferred (which was a priority for France) in return for France's willingness to accept the need for deploying a NATO-owned and operated Ballistic Missile Defense system in Europe (which was a priority for the United States). Personal experience of the author.

⁵⁰⁰ Interview, US2.

⁵⁰¹ "50th Anniversary of the Harmel Report: National Approaches," NATO Archives: 2294-17 NATO Graphics and Printing, 2017, 1.

[created] resentment and distrust. The senior leadership is ok – they get it, even in opposition parties – but not in the electorate.⁵⁰²

Putting more stress on the United States to make more progress in meeting its NPT Article VI commitments, the 2017 UN General Assembly-adopted Nuclear Ban Treaty (NBT) entered into force on January 22, 2021 after secured the required 50th States Party ratification from Honduras the previous October. Referencing the pressure the NBT is placing on NATO allies, Heather Williams has observed: “Providing a strong extended deterrent to allies while also being sensitive to disarmament pressures is indeed a *delicate balance*, but it is one that the United States has to pursue with greater nuance.”⁵⁰³ One former Obama described this challenge as “huge, huge.”⁵⁰⁴ Or, as a senior Obama official interviewed put it, rather colorfully: “if you don’t take on the anti-nuclear constituencies for 25-30 years, those chickens come home to roost.”⁵⁰⁵ Another senior Trump official interviewed agreed, arguing:

This is terribly important. The big risk to DCA is domestic politics – as manifested in parliaments – and pressure from the left. These governments need to point to progress on NPT, etc. ... There is a parallel in the United States with Democrats linking support Chapter One, parliaments must counter NBT advocates.⁵⁰⁶

In this context, then, nothing was perhaps more crucial for NATO cohesion on DCA than securing the automatic 5-year extension of the 2009 New START Treaty, as was accomplished by President Biden and President Putin on February 4, 2021.⁵⁰⁷ The Biden Administration has bought crucial time in terms of re-establishing European belief in America’s arms control *bona fides*, but the 4-year presidential term of office “clock” will be “ticking” as it now pivots to try to negotiate a new strategic arms control accord that Russia will sign on to and that the U.S. Senate will ratify. In addition, the demise of the INF Treaty has left a lacuna in which sub-strategic missile proliferation, both conventional and

⁵⁰² Interview, N2.

⁵⁰³ Heather Williams, “What the Nuclear Ban Treaty Means for America’s Allies,” *War-on-the-Rocks*, November 5, 2020, 16 (emphasis in original).

⁵⁰⁴ Interview, US1.

⁵⁰⁵ Interview, US2.

⁵⁰⁶ Interview, US2.

⁵⁰⁷ Jim Garamone, “U.S., Russia Extend Arms Reduction Treaty,” *DoD News*, February 4, 2021. In a strong statement of support, SYG Stoltenberg said: “I don’t see the treaty’s extension as the end, but the beginning of an effort to further strengthen international nuclear arms control.” (NATO Press Release, January 22, 2021)

nuclear, threatens to spread rapidly, creating risks of new arms races and new regional instabilities.

7.5. A Concluding Observation

This dissertation has had as its focus DCA. But to explain burden-sharing as it relates to DCA, it has drawn contrasts with the conduct of burden-sharing at NATO in the far broader, and some might argue pivotal, domains of the “3 C’s” – cash, capabilities and contributions. In contrast to the bottom-up “domestic audit” that the 11 allies studied here have made with regard to deciding whether to share the burdens of DCA, this “alliance audit” of burden-sharing within each of the “3 C’s” is top-down and externally-driven; that is, it is executed by the organization itself and conducted against well-defined, understood and monitored yardsticks. Pursuant to these burden-sharing processes, NATO allies have since Crimea continued to audit each other with the objective not only of ensuring “fairness,” but also of insuring themselves and one another against war. As Patricia Weissman has argued, NATO continues, seven decades on, to deter its adversaries, defend against Russia, maintain the transatlantic bond, and help manage the intra-European balance of power by tethering potential adversaries to one another, thereby diffusing wars.⁵⁰⁸ On February 19, 2021, President Biden told the Munich Security Conference: “America is back, and the transatlantic alliance is back.” The challenge will be to keep them both “back.”

⁵⁰⁸ Patricia A. Weissman, *Dangerous Alliances: Proponents of Peace, Weapons of War*, (Stanford: Stanford University Press, 2004).

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APPENDIX ONE

Dissertation Interviews

Name	Title	Date	Code
1. Ms Jessica Cox	Head, Nuclear Policy Directorate, NATO IS	04/08/19	N1
2. AMB Jiri Sedivy	Perm Rep of Croatia to NATO	04/08/19	A1
3. Diego Ruiz Palmer	Policy Advisor to SYG, NATO IS	04/09/19	N1
4. LTC Kevin Steele*	Defense Policy Officer, USNATO/ODA	04/09/19	US2
5. William Alberque	Dir., Arms Ctl.&Non-Pro. Ctr., NATO IS	04/09/19	N1
6. Frank Rose*	Asst. Sec. of State for Arms Control	08/14/19	US1
7. GEN Phil Breedlove	SACEUR (2014-2016)	08/22/19	N2
8. Rob Soofer**	DASD/Nuclear Policy & Missile Defense	08/26/19	US2
9. John Rood**	Under Secretary of Defense for Policy	08/27/19	US2
10. A.L. Winternitz**	Acting DASD/Europe and NATO Policy	08/27/19	US2
11. Jeremiah Getler	Defense Policy Analyst, CRS	08/27/19	TT
12. Robert Scher*	Asst Sec Def/Strategy, Plans & Caps.	08/27/19	US1
13. Elaine Bunn*	DASD/Nuclear Policy & MD	08/28/19	US1
14. James Hursch* **	Deputy Defense Adviser, USNATO	12/05/19	US1/2
15. Jed Royal	Head, DPP Directorate, USNATO/ODA	12/05/19	US2
16. LTC Troy Uhlman	Defense Policy Officer, USNATO/ODA	12/05/19	US2
17. GEN Rupert Smith	Deputy SACEUR (1998-2001)	12/05/19	N2
18. AMB S. Stefanini	Former Italian Perm Rep to NATO	12/06/19	A1
19. Alex. Mattelaer	Sr. Research Fellow, Egmont Institute	12/06/19	TT
20. Sven Biscop	Director for Europe Program, Egmont	12/06/19	TT
21. COL M. Rodrigues	Spanish Defense Counsellor at NATO	12/06/19	A1
22. AMB P. Heyman	Perm Rep of Belgium to NATO	12/09/19	A1
23. Graham Evans	Defense Policy & Plans Staff Officer, NATO IS	12/09/19	N1
24. Simon Lunn	Former SYG, NATO Parliamentary Assembly	12/10/19	N1
25. Ethan Corbin	Director, Def & Sec Cmte, NPA	12/10/19	N1
26. AMB F. van Daele	Former Belgian Perm Rep to NATO	12/11/19	N1
27. LTC Onno Sluter	Sr. Policy Officer, Neth Del to NATO	12/12/19	A1
28. AMB M. Gerards	Perm Rep of the Netherlands to NATO	12/12/19	A1
29. R. in den Bosch	Defense Counsellor, Dutch NATO Delegation	12/12/19	A1
30. AMB H-D. Lucas	Perm Rep of Germany to NATO	12/12/19	A1
31. LTC Gerard Weber	NSG/AVC Rep, German NATO Delegation	12/12/19	A1
32. AMB T. Stamatooulus	Former Greek Perm Rep to NATO	12/12/19	A1
33. Ms E. Grammatika	Defense Counselor, Greek Del to NATO	12/12/19	A1
34. Andreas Kintis	Minister-Counsellor, Greek NATO Delegation	12/12/19	A1
35. Diego Ruiz Palmer	Def Policy & Plans Staff Officer, NATO IS	12/12/19	N1
36. AMB F. Talo	Perm Rep of Italy to NATO	12/13/19	A1
37. Jessica Cox	Head, Nuclear Policy Directorate, NATO IS	12/16/19	N1

38. Vasco Arvila	Defense Adviser, Portuguese Del. to NATO	12/17/19	A1
39. Hasit Thankey	Former Defense Counselor, Can. NATO Del	12/18/19	A1
40. AMB L. Plesner	Perm Rep of Denmark to NATO	12/19/19	A1
41. Thomas Larsen	Danish Asst. Defense Adviser at NATO	12/19/19	A1
42. AMB Oystein Bo	Perm Rep of Norway to NATO	12/19/19	A1
43. CdA Doug Jones**	Acting US Perm Rep to NATO	12/19/19	US2
44. COL Kyle B. Head**	Defense Adviser, US Embassy Brussels	02/10/20	US2
45. COL M. Stephenson**	Defense Adviser, USEU	02/10/20	US2
46. AMB Lise Wisborg	Ambassador of Denmark to US	02/11/20	A1
47. ADM J. Stavridis*	SACEUR (2009-2013)	02/18/20	N2
48. BGen N.L. Pires	Portuguese MoD, Def Pol Dep Director	03/14/20	A1
49. R. Gottemoeller*	NATO Dep SYG (2015-2020)	03/20/20	N1
50. Brad Roberts*	DASD/Nuclear Policy and MD	03/22/20	US1
51. AMB Ivo Daalder*	Former Perm Rep of US to NATO	03/30/20	US1
52. LtGEN S. Shepro	Former D/CMC, NATO IMS	03/31/20	N2
53. GEN M. Lange	Chief of Staff, SHAPE (2010-2012)	04/04/20	N2
54. AMB Douglas Lute*	Former Perm Rep of US to NATO	04/06/20	US1
55. James Townsend*	DASD Europe & NATO Policy	04/14/20	US1
56. AMB Fatih Ceylan	Former Turkish Perm Rep to NATO	04/19/20	A1
57. Steve Bradshaw*	Former Budget Analyst, USNATO	05/15/20	US1
58. AMB S. Vershbow*	Former Dep SYG NATO & US Perm Rep	06/08/20	N1
59. ADM S. Winnefeld*	Former V/CJCS	06/12/20	US1
60. COL R. Hooker**	Former NSC Dir. for NATO	06/25/20	US2
61. GEN C. Scaparotti**	SACEUR (2016-2019)	08/21/20	N2
62. Tim Morrison**	NSC Sr. Dir./WMD	08/21/20	US2
63. Mike Ryan**	DASD/Europe-NATO	10/20/20	US2

INDEX:

- **N1: NATO International Staff Policy Official (Civilian)**
 - **N2: NATO Military Official**
 - **A1: Allied Policy Official**
 - **US1: U.S. Policy Official (* Obama Administration)**
 - **US2: U.S. Policy Official (** Trump Administration)**
 - **TT: Think Tank Policy Expert**
-

APPENDIX TWO

PhD Dissertation Interview Responses

Subject 1: U.S. and NATO Policy and Perspectives Towards Allies' DCA

Participation

Question	# Officials Asked	# Answer: "Yes"	# Answer: "No"	# Answer: "only general or indirect pressure"
Do you think the U.S. pressures eligible and capable allies that don't participate in DCA to participate?	37	2	30	5
Do you think allies that choose <i>not</i> to participate in DCA face adverse consequences?	# Officials Asked 38	Answer: "No" 36	Answer: "Yes" 0	Answer: "only have less influence" 2
Do you think most senior NATO officials engaged in national security matters	# Officials Asked	Answer: "No"	Answer: "Yes"	Answer: "Only Nuclear Specialists"

know which allies are “in” DCA and which are “out”?	26	17	3	6
Do you think NATO is at the <i>de minimis</i> number of allies that must be in DCA if it is to remain viable?	# officials asked	Answer: “yes”	Answer: “No – could lose 1-2”	Answer: “not sure” or “it depends”
	25	10	10	5
If no ally continued to participate in DCA, do you think the US would pull its troops out of Europe?	# officials asked	Answer “yes”	Answer: “no”	
	25	19	6	
Do you think US nuclear guarantee extends any less to allies that opt-out of DCA?	# officials asked	Answer “no”	Answer: “yes”	
	22	21	1	

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Subject 2: Role of Germany

Question	# Officials Asked	# Answering "Yes"	# Answering "No"	# Answering "Not sure"
If Germany were to abandon its DCA role, do you think that would lead other allies to drop out as well?	39	39	0	0

Subject 3: Importance of Arms Control "Parallel Track"

Question	# Officials Asked	# Answering "Yes"	# Answering "No"	# Answering "Not sure" or "maybe"
Is maintaining a robust arms control, disarmament and non-proliferation engagement with Russia a significant factor in maintaining public support for DCA in allied nations?	41	37	2	2

APPENDIX THREE

BURDEN-SHARING: WHAT CONSTITUTES ‘FREE-RIDING’? INTERVIEW QUESTIONS FOR NATO OFFICIALS (IS, MC and SHAPE)

PhD Dissertation Research

Robert G. Bell

Fletcher School of Law and Diplomacy

NAME:

DATE:

METHOD:

TERMS OF REFERENCE:

- Chatham House/non-attribution rules: All interviews strictly on background; can quote those interviewed but cannot cite them as the source of the quotation or otherwise identify them in any way by direct attribution.
- Dissertation will be unclassified and strictly adhere to U.S. and NATO’s “neither confirm nor deny” policy with regard to NATO’s nuclear posture.

QUESTIONS:

1. NATO’s nuclear deterrence policies require political consensus, consultations occur periodically within the all-member (except France) forum of the Nuclear Planning Group (NPG), and certain elements of NATO’s Dual Capable Aircraft (DCA) posture are funded through NATO’s Common-Funded Budgets. In that sense, all allies are engaged in the nuclear dimension of NATO’s deterrent posture. Beyond that, though, some allies choose to participate directly in NATO’s DCA mission, either through agreeing that U.S. B-61 nuclear bombs will be based on their soil or contributing B-61 delivery-capable aircraft (such as the F-16, Tornado or F-35) to this mission, or both. On the other hand, some allies equipped with modern fighter aircraft who could participate in DCA do not. Do you believe most senior officials on the International Staff, Military Committee, and at SHAPE are aware which allies actively participate in DCA and which do not?
2. Do you think they know which allies participate in the DCA-support program named SNOWCAT and which do not?

3. Do you believe the United States actively encourages eligible and capable allies to participate in DCA, or do you believe it views such participation as essentially voluntary or discretionary?
4. Do you think NATO's senior political and military leadership actively encourages eligible allies to participate in DCA, or do these leaders view such participation as essentially voluntary or discretionary?
5. According to a January 2019 Report by the Netherlands Advisory Council on International Relations, chaired by former NATO SYG Jaap de Hoop Schaeffer and produced in response to a formal request by the Dutch Defense and Foreign Ministers, "Besides the United States, a number of NATO's European members (Belgium, Germany, Italy, Netherlands and Turkey) provide dual-capable aircraft that can be equipped with US nuclear gravity bombs." Without asking that you confirm or deny which allies have B61 bombs stored under U.S. custodianship on their soil, is the current group of active DCA participants in your view an "irreducible minimum," or could the DCA nuclear-sharing arrangements that underpin NATO's current nuclear posture continue even if one or more of these allies elected to drop out? In short, is there a *de minimis* "critical mass" of European allies must continue to participate directly in this mission by providing nuclear-capable fighters and trained aircrews, or do you think the U.S. could carry the forward-based B61 mission *alone* with its own European-based fighter aircraft as long as one or more allies continued to allow the bombs to be based on its/their territory?
6. The 14 so-called "new" allies (i.e., those that acceded to the NATO Treaty after the end of the Cold War) are exempted from active DCA participation by NATO's "3 no's" policy. LUX/ICE do not have air forces and hence cannot participate. UK and FR maintain independent strategic nuclear forces and hence more than carry their weight in terms of nuclear roles. Besides the US, then, there are 11 allies left. Five in this group have chosen to "opt out" of DCA (i.e., DK, NO, SP, POR, CA) and six have, to varying degrees, opted-in (BE, NETH, GER, NETH, GR, TUR). We are all familiar with the NATO 2012 Wales defense investment pledge and the emphasis placed, especially under the Trump Administration, on meeting that commitment and not engaging in "free-riding." Do you think there is a "nuclear-sharing equivalent" of the Wales Pledge? In other words, for those eligible, modern fighter aircraft-equipped allies not subject to the "3 no's" policy other than the UK or FR (i.e., DK, NOR, SP, PORT or CA) who have elected to opt out of DCA, do you think there are any adverse political consequences (lower status within the Alliance, less influence with Washington, etc.)?
7. President Trump in 2018 publicly questioned why the U.S. might risk nuclear war over Montenegro. With regard to that ally, as well as the 12, soon to be 13, other allies not eligible to participate in DCA due to the "3 no's" policy, and the allies who opt out of DCA or don't have the fighter aircraft needed to participate, do you think the U.S. extended nuclear deterrent applies any *less* so than it does to allies who do participate directly in DCA or maintain independent strategic nuclear forces?

8. In your estimation does the willingness of the allies who could participate directly in DCA but have chosen not to do so to contribute forces to other NATO operations, such as ISAF/RSM, Baltic Air Policing, or Counter-ISIS, “compensate” for their decisions to opt out of nuclear-sharing roles?
9. In NATO’s history, there has been an expression articulated by some outside observers that links the US willingness to keep US troops forward deployed in Europe with its allies’ willingness to accept basing of US nuclear weapons on their soil. This expression is: “no nukes, no troops.” However, in Asia, the US maintains troops forward deployed (e.g., in South Korea and Japan) although it chose to withdraw its tactical nuclear weapons that had been forward-deployed in that theater. Do you believe the U.S. would keep US troops in Europe if *no* European ally was willing to have the B-61 based on its soil?
10. Germany has always been a special case in NATO nuclear matters. US nuclear-sharing has in many respects over the decades been intended to dampen any German inclination to seek its own independent nuclear capability, and in that respect, the DCA posture serves the broader goals of the NPT and US non-proliferation policy. Do you think that dynamic still applies?
11. Germany has ruled out the F-35 from its next-generation fighter replacement competition. Many experts question whether it can count on the US agreeing to “nuclear certify” a European-produced Advanced Typhoon fighter replacement for its current DCA-capable Tornado fleet (assuming it does not choose the F/A-18 E/F Super Hornet). In that case, there would be a time limit to how much longer Germany could afford to keep its Tornado DCA aircraft flying and capable of carrying out missions against ever-more capable Russian A2/AD defenses. What in your view would be the consequences, both in Washington and at NATO HQ, if Germany dropped out of the DCA mission? Do you think that would inevitably lead other European DCA nations to drop out?
12. Since the Harmel Report in 1967, support by our allies for NATO’s nuclear posture and weapons modernization programs has effectively required a “parallel path” or “double track” strategy balancing nuclear enhancements with a robust nuclear arms control engagement. Under the Trump Administration, with INF terminated and New START possibly on course to expire, there is or soon may be for all intents and purposes no nuclear arms control “pillar” in place under the Alliance’s Strategic Concept, except for general statements of interest by Administration officials in seeking new accords that improve on the earlier treaties and which include China. At the same time, there is clearly deep resentment by allies regarding Russia’s violation of the INF, its NSNF and SNF modernization more generally, and its aggression in Ukraine. In this complex strategic environment, as GER, NETH, BE, IT and TUR confront difficult decisions concerning their 5th generation fighter aircraft procurement programs, how much do you think the perceived demise of arms control complicates their task in ensuring domestic political support for these systems are adapted to make them nuclear delivery-capable?
13. Are there any aspects of this subject that you believe I have overlooked or failed to adequately emphasize?

APPENDIX FOUR

“NATO NUCLEAR BURDEN-SHARING: WHAT CONSTITUTES ‘FREE-RIDING’?”

INTERVIEW QUESTIONS FOR U.S. OFFICIALS

PhD Dissertation Research

Robert G. Bell

Fletcher School of Law and Diplomacy

NAME:

DATE:

METHOD:

TERMS OF REFERENCE:

- Chatham House/non-attribution rules: All interviews strictly on background; can quote those interviewed but cannot cite them as the source of the quotation or otherwise identify them in any way by direct attribution.
- Dissertation will be unclassified and strictly adhere to U.S. and NATO’s “neither confirm nor deny” policy with regard to NATO’s nuclear posture.

QUESTIONS:

1. NATO’s nuclear deterrence policies require political consensus, consultations occur periodically within the all-member (except France) forum of the Nuclear Planning Group (NPG), and certain elements of NATO’s Dual Capable Aircraft (DCA) posture are funded through NATO’s Common-Funded Budgets. In that sense, all allies are engaged in the nuclear dimension of NATO’s deterrent posture. Beyond that, though, some allies choose to participate directly in NATO’s DCA mission, either through agreeing that U.S. B-61 nuclear bombs will be based on their soil or contributing B-61 delivery-capable aircraft (such as the F-16, Tornado or F-35) to this mission, or both. On the other hand, some allies equipped with modern fighter aircraft who could participate in DCA do not. Do you believe most senior U.S. officials with responsibilities for national security are aware which allies actively participate in DCA and which do not?
2. Do you think they know which allies participate in the DCA-support program named SNOWCAT and which do not?

3. Do you believe the United States actively encourages eligible and capable allies to participate in DCA, or do you believe it views such participation as essentially voluntary or discretionary?
4. Do you think NATO's senior political and military leadership actively encourages eligible allies to participate in DCA, or do these leaders view such participation as essentially voluntary or discretionary?
5. According to a January 2019 Report by the Netherlands Advisory Council on International Relations, chaired by former NATO SYG Jaap de Hoop Schaeffer and produced in response to a formal request by the Dutch Defense and Foreign Ministers, "Besides the United States, a number of NATO's European members (Belgium, Germany, Italy, Netherlands and Turkey) provide dual-capable aircraft that can be equipped with US nuclear gravity bombs." Without asking that you confirm or deny which allies have B61 bombs stored under U.S. custodianship on their soil, is the current group of active DCA participants in your view an "irreducible minimum," or could the DCA nuclear-sharing arrangements that underpin NATO's current nuclear posture continue even if one or more of these allies elected to drop out? In short, is there a *de minimis* "critical mass" of European allies must continue to participate directly in this mission by providing nuclear-capable fighters and trained aircrews, or do you think the U.S. could carry the forward-based B61 mission *alone* with its own European-based fighter aircraft as long as one or more allies continued to allow the bombs to be based on its/their territory?
6. The 14 so-called "new" allies (i.e., those that acceded to the NATO Treaty after the end of the Cold War) are exempted from active DCA participation by NATO's "3 no's" policy. LUX/ICE do not have air forces and hence cannot participate. UK and FR maintain independent strategic nuclear forces and hence more than carry their weight in terms of nuclear roles. Besides the US, then, there are 11 allies left. Five in this group have chosen to "opt out" of DCA (i.e., DK, NO, SP, POR, CA) and six have, to varying degrees, opted-in (BE, NETH, GER, NETH, GR, TUR). We are all familiar with the NATO 2012 Wales defense investment pledge and the emphasis placed, especially under the Trump Administration, on meeting that commitment and not engaging in "free-riding." Do you think there is a "nuclear-sharing equivalent" of the Wales Pledge? In other words, for those eligible, modern fighter aircraft-equipped allies not subject to the "3 no's" policy other than the UK or FR (i.e., DK, NOR, SP, PORT or CA) who have elected to opt out of DCA, do you think there are any adverse political consequences (lower status within the Alliance, less influence with Washington, etc.)?
7. President Trump in 2018 publicly questioned why the U.S. might risk nuclear war over Montenegro. With regard to that ally, as well as the 12, soon to be 13, other allies not eligible to participate in DCA due to the "3 no's" policy, and the allies who opt out of DCA or don't have the fighter aircraft needed to participate, do you think the U.S. extended nuclear deterrent applies any *less* so than it does to allies who do participate directly in DCA or maintain independent strategic nuclear forces?

8. In your estimation does the willingness of the allies who could participate directly in DCA but have chosen not to do so to contribute forces to *other* NATO operations, such as ISAF/RSM, Baltic Air Policing, or Counter-ISIS, “compensate” (in burden-sharing terms) for their decisions to opt out of nuclear-sharing roles?
9. In NATO’s history, there has been an expression articulated by some outside observers that links the US willingness to keep US troops forward deployed in Europe with its allies’ willingness to accept basing of US nuclear weapons on their soil. This expression is: “no nukes, no troops.” However, in Asia, the US maintains troops forward deployed (e.g., in South Korea and Japan) although it chose to withdraw its tactical nuclear weapons that had been forward-deployed in that theater. Do you believe the U.S. would keep US troops in Europe if *no* European ally was willing to have the B-61 based on its soil?
10. Germany has always been a special case in NATO nuclear matters. US nuclear-sharing has in many respects over the decades been intended to dampen any German inclination to seek its own independent nuclear capability, and in that respect, the DCA posture serves the broader goals of the NPT and US non-proliferation policy. Do you think that dynamic still applies?
11. Germany has ruled out the F-35 from its next-generation fighter replacement competition. Many experts question whether it can count on the US agreeing to “nuclear certify” a European-produced Advanced Typhoon fighter replacement for its current DCA-capable Tornado fleet (assuming it does not choose the F/A-18 E/F Super Hornet). In that case, there would be a time limit to how much longer Germany could afford to keep its Tornado DCA aircraft flying and capable of carrying out missions against ever-more capable Russian A2/AD defenses. What in your view would be the consequences, both in Washington and at NATO HQ, if Germany dropped out of the DCA mission? Do you think that would inevitably lead other European DCA nations to drop out?
12. Since the Harmel Report, support by our allies for NATO’s nuclear posture and weapons modernization programs has required a “parallel path” or “double track” strategy balancing nuclear enhancements with a robust nuclear arms control engagement. Under the Trump Administration, with INF terminated and New START possibly on course to expire, there is or soon may be for all intents and purposes no nuclear arms control “pillar” in place under the Alliance’s Strategic Concept, except for general statements of interest by Administration officials in seeking new accords that improve on the earlier treaties and which include China. At the same time, there is clearly deep resentment by allies regarding Russia’s violation of the INF, its NSNF and SNF modernization more generally, and its aggression in Ukraine. In this complex strategic environment, as GER, NETH, BE, IT and TUR confront difficult decisions concerning their 5th generation fighter aircraft procurement programs, how much do you think the perceived demise of arms control complicates their task in ensuring domestic political support for these systems are adapted to make them nuclear delivery-capable?
13. Though not probable, one can postulate a “perfect storm” in the coming years where, for a variety of reasons (resentment of President Trump’s “bullying” on the Wales, the popularity within European domestic constituencies of anti-nuclear

movements and initiatives, the extra cost of the nuclear-capability upgrades to their already expensive F-35 procurements, political pressure on EU Member States to “Buy European,” etc.), each of the current active DCA participants drops out of this mission. How do you think the Trump Administration would react in terms of its support for NATO, including US obligations under Article 5?

14. Are there any aspects of this subject that you believe I have overlooked or failed to adequately emphasize?

APPENDIX FIVE

“NATO NUCLEAR BURDEN-SHARING: WHAT CONSTITUTES ‘FREE-RIDING’?”

INTERVIEW QUESTIONS FOR ALLIED OFFICIALS

PhD Dissertation Research

Robert G. Bell

Fletcher School of Law and Diplomacy

NAME:

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METHOD:

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1. Chatham House/non-attribution rules: All interviews strictly on background; can quote those interviewed but cannot cite them as the source of the quotation or otherwise identify them in any way by direct attribution.
2. Dissertation will be unclassified and strictly adhere to U.S. and NATO’s “neither confirm nor deny” policy with regard to NATO’s nuclear posture.

QUESTIONS:

1. At their London Leaders Meeting in December 2019, NATO Heads of State and Government (HoS/G) reaffirmed the conclusion from the 2012 Deterrence and Defense Review that deterrence depends on an “appropriate mix” of conventional, missile defense and nuclear forces. In July 2018, at the Brussels Summit, they agreed that with regard to the latter, in addition to the strategic nuclear forces of the United States, UK and France, nuclear deterrence “also relies on United States’ nuclear weapons forward-deployed in Europe and the capabilities and infrastructure provided by Allies concerned.” Do you think the forward-based Dual Capable Aircraft (DCA) posture is still an essential element of NATO nuclear deterrence?
2. In the Brussels Summit Declaration, HoS/G also agreed that the DCA mission would be “further enhanced” through “supporting contributions by Allies concerned to ensure the broadest possible participation in the agreed nuclear burden-sharing arrangements.” In a similar vein, Secretary General Stoltenberg in an interview with a German newspaper in February 2019 said: “This nuclear participation is important for NATO, and I urge as many Alliance partners as

possible to participate in this nuclear integration, including Germany.” How does your country view these appeals from NATO, collectively, for the “broadest possible participation” in the DCA mission; that is, does your country view it as a *request for voluntary* force contributions (i.e., something that is *discretionary*), or as a policy consensus that in effect imposes an *obligation* for all allies who are capable of doing so to contribute?

3. Beyond having NATO – the institution - appeal for the broadest possible participation, do you believe the United States presses allies who are capable of directly participating in DCA to do so? If so, how is that pressure manifested? If not, why do you think the United States is accepting of the voluntary nature of such participation?
4. Do you think the U.S. stance on nuclear-sharing is relatively constant across administrations, going back at least to President Obama, or do you think it has changed under the Trump Administration?
5. According to a January 2019 Report by the Netherlands Advisory Council on International Relations, chaired by former NATO SYG Jaap de Hoop Schaeffer and produced in response to a formal request by the Dutch Defense and Foreign Ministers, “Besides the United States, a number of NATO’s European members (Belgium, Germany, Italy, Netherlands and Turkey) provide dual-capable aircraft that can be equipped with US nuclear gravity bombs.” Do you think that allies that do participate in DCA - either as delivery nations or basing nations or both – have increased influence within NATO for so doing? In other words, do you think that having a seat at the NATO nuclear table by means of being a direct DCA participant confers a special status with Washington and within the Alliance?
6. Do you think that allies whose air forces are regularly contributed to NAC-approved Operations and Missions and Assurance Measures, such as RSM/ISAF, Counter-ISIS, Baltic Air Policing or Iceland Air Surveillance, in effect create some discretionary flexibility as to whether or not they also choose to participate directly in DCA, or are the two domains completely separate cases when it comes to assessing whether an ally is sufficiently carrying its weight within NATO?
7. Do you believe there is a minimum number of allies who must participate directly in DCA through delivery or basing contributions if the capability is to be deemed credible? If so, does that, in your view, include Germany as a “must participate” ally?
8. Since the Harmel Report, support by U.S. NATO allies for NATO’s nuclear posture and weapons modernization programs has required a “parallel path” or “double track” strategy balancing nuclear enhancements with a robust nuclear arms control engagement. Under the Trump Administration, with INF terminated and New START possibly on course to expire, there is or soon may be for all intents and purposes no nuclear arms control “pillar” in place under the Alliance’s Strategic Concept, except for general statements of interest by Administration officials in seeking new accords that improve on the earlier treaties and which include China. At the same time, there is clearly deep resentment by allies regarding Russia’s violation of the INF, its NSNF and SNF

modernization more generally, and its aggression in Ukraine. In this complex strategic environment, as GER, NETH, BE, IT and TUR confront difficult decisions concerning their 5th generation fighter aircraft procurement programs, how much do you think the perceived demise of arms control and concern about Russia's behavior bear on these allies' challenge in ensuring domestic political support is maintained for adapting these platforms to make them nuclear delivery-capable?

9. Are there any aspects of this subject that you believe I have overlooked or failed to adequately emphasize?

APPENDIX SIX

Allies' Participation in Allied Operations and Missions Since 2014

	RSM	KFOR	VJTF	eFP	BMD/ TMD	SNFs	AP	D- ISIS	DCA
Belgium	X			X		X	X	X	X
Canada	X	X		X	X	X	X	X	
Denmark	X	X		X	X	X	X	X	
Italy	X	X	X	X	X	X	X	X	X
Germany	X	X	X	X	X	X	X	X	X
Greece	X	X				X			X
Netherlands	X		X	X	X	X	X	X	X
Norway	X	X	X	X		X	X	X	
Portugal	X	X		X		X	X	X	
Spain	X		X	X	X	X	X	X	
Turkey	X	X	X		X	X		X	X

(Non-DCA Participating Allies Highlighted in Yellow)

RSM=Resolute Support Mission (Afghanistan)

KFOR=Kosovo Force

VJTF=Very-High Readiness Joint Task Force (Rapid Reinforcement Brigade) Lead Nation

eFP=Enhanced Force Presence battalions in Baltics and Poland (inc. Framework & Contributing nations)

BMD/TMD=NATO Ballistic Missile Defense (Aegis), NORAD (inc. BMEWS), and national Theater Missile Defense battery deployments to Turkey

SNFs=NATO Maritime Standing Naval Forces

AP=Air Policing (Baltics, Black Sea and Iceland)

D-ISIS= Defeat ISIS Coalition (OSD "Large Group" member contributing forces and/or basing)

DCA= Dual Capable Aircraft mission

APPENDIX SEVEN

Modern Nuclear-Capable or Nuclear-Certified Fighter Inventories of the 11 Allies⁵⁰⁹

7.0. BELGIUM

4 Squadrons of F-16AM/BMs with 54 combat-capable aircraft (45 F-16AM, 9 F-16BM). 34 total F-35As to be acquired.

7.1. CANADA

4 Squadrons of F/A-18A/B with 82 combat-capable aircraft (61 F/A-18A and 21 F/A-18B). Fighter replacement competition in progress (88 F/A-18E/F Super Hornets, Grippens or F-35As).

7.2. DENMARK

2 Squadrons of F-16 AM/BM with 44 combat-capable aircraft (34 F-16AM and 10 F-16BM), of which 30 are maintained in an operational status. F-35 acquisition in progress.

7.3. GERMANY

2 Squadrons of Tornado IDS with 68 combat-capable aircraft. MoD has recommended acquisition of 45 F/A-18F Super Hornets for its post-Tornado DCA role, with a decision to be taken in 2022-2023.

7.4. GREECE

3 Squadrons of F-16 CG/DG Block 30/50 with 154 combat-capable aircraft (69 F-16 CG/DG Block 30/50, 55 F-16 C/D Block 52+, and 30 F-16 C/D Block 52+ ADV). . According to media reports following Secretary of State Pompeo's visit to Athens in October 2020, Greece will be allowed to purchase 20 F-35s, including 6 that had been slated for Turkey before its suspension from the program because of its S-400 purchase.

7.5. ITALY

2 Squadrons of Tornados IDS with 34 combat-capable aircraft. F-35A acquisition in progress with 12 F-35A aircraft in 1 squadron. 90 total F-35A/Bs to be acquired.

⁵⁰⁹ *The Military Balance, 2021, International Institute of Strategic Studies* (London: Routledge, 2021).

7.6. NETHERLANDS

3 Squadrons of F-16 AM/BM and F-35A with 73 combat-capable aircraft (61 F-16 AM/BMs and 12 F-35As (in testing)). 46 total F-35As to be acquired.

7.7. NORWAY

1 Squadron of F-16 AM/BM with 35 combat-capable aircraft (30 AM and 5 BM) and 1 Squadron forming of 28 F-35As.

7.8. PORTUGAL

2 Squadrons of F-16 AM/BM with 30 combat-capable aircraft (26 F-16 AM and 4 F-16 BM).

7.9. SPAIN

5 Squadrons of F/A-18 A/B MLU with 84 combat-capable aircraft (20 F/A-18A, 52 EF-18A MLU, and 12 EF-18B MLU).

7.10. TURKEY

8 Squadrons of F-16 C/D with 260 combat-capable aircraft (27 F-16C Block 30, 162 F-16C Block 50, 14 F-16C Block 50+, 8 F-16D Block 30, 33 F-16D Block 50, and 16 F-16D Block 50+). Suspended in 2019 by United States from F-35 acquisition and manufacturing programs due to S-400 procurement from Russia.

APPENDIX EIGHT

Classification and Sources

This dissertation is entirely unclassified. As a former U.S. official who held a security clearance and is hence still bound by its accompanying obligations, the author of this dissertation neither confirms nor denies any publication's or individual's assertions cited herein as to the locations and numbers of B61 bombs in any ally's territory. Unless otherwise specified, the contents of this dissertation are derived solely from publicly available information.

According to a January 2019 report by the Netherlands Advisory Council on International Relations (AIV), chaired by former NATO Secretary General (SYG) Jaap de Hoop Schaeffer and produced in response to a formal request by the Dutch Defense and Foreign Ministers:

Besides the United States, a number of NATO's European members **(Belgium, Germany, Italy, Netherlands and Turkey)** provide dual-capable aircraft that can be equipped with U.S. nuclear gravity bombs. This is why some of these weapons have been stockpiled in Europe.⁵¹⁰

The AIV report notes that "Although stockpiling locations have been mentioned in publications, the Dutch government, like all other NATO partners, has always maintained that, on the basis of Alliance agreements, no information is provided about numbers and locations of U.S. nuclear weapons in Europe." In short, although NATO openly acknowledges which allies provide aircraft to the DCA mission, as a matter of policy it *neither confirms nor denies* the presence of U.S. nuclear weapons on any ally's soil or the numbers of such weapons.

That said, there is an extensive literature from open-source, non-governmental organizations and individual researchers concerning these locations and numbers. For example, see Hans M. Kristensen, "U.S. Nuclear Weapons in Europe: A Review of Post-Cold War Policy, Force Levels, and War Planning," *Natural Resources Defense Council* (NRDC), February, 2005;⁵¹¹ Hans M. Kristensen and Robert S. Norris: "U.S. Tactical Nuclear Weapons in Europe," *Bulletin of the Atomic Scientists*, No. 67-1,

⁵¹⁰ Advisory Council on International Affairs (Adviesesraad Internationale Vraagstukken (AIV)). *Nuclear Weapons in a New Geopolitical Reality: An Urgent Need for New Arms Control Initiatives*, AIV Report No. 109, January 2019. (The Hague: AIV, 2019).

⁵¹¹ Hans M. Kristensen, "U.S. Nuclear Weapons in Europe: A Review of Post-Cold War Policy, Force Levels, and War Planning," *Natural Resources Defense Council* (NRDC), February, 2005.

2011;⁵¹² and Hans M. Kristensen and Matt Korda, “Tactical Nuclear Weapons, 2019,” *Bulletin of the Atomic Scientists*, No. 75-5, 2019.⁵¹³ In this 2019 update, Kristensen and Korda state that “about 150 B61-3 and -4 gravity bombs are thought to be deployed at six bases in five European countries: Aviano AB and Ghedi AB in **Italy**; Buchel AB in **Germany**; Incirlik AB in **Turkey**; Kleine Brogel AB in **Belgium**; and Volkel AB in the **Netherlands**.”

See also: Steve Andreasen, Isabelle Williams, Brian Rose, Hans M. Kristensen, and Simon Lunn, “Building a Safe, Secure and Credible NATO Nuclear Posture,” *Nuclear Threat Initiative*, January 2018.⁵¹⁴

See also: *History of the Custody and Deployment of Nuclear Weapons: July 1945 through September 1977*, Office of the Assistant to the Secretary of Defense (Atomic Energy), February 1978. A redacted version of this document is available in the Office of the Secretary of Defense’s FOIA Reading Room, Room 2C757, The Pentagon. Appendix B, titled “Chronology Deployment by Country 1951-1977” does not redact the information about U.S. nuclear weapons deployments in West Germany during these years.

In July 2019 the NATO Parliamentary Assembly (NPA) posted a draft report on its website that also cited the 150 B61 number and the 6 specific air bases listed by Kristensen in 2019.⁵¹⁵ Following extensive media reporting on the draft report, it was withdrawn from public access and later released officially by the NPA with a disclaimer as to sources.⁵¹⁶

Lunn, a former Secretary General of the NPA, has stated elsewhere that B61 bombs stored at bases in Europe are available for delivery by DCA aircraft from **Belgium, Germany, Italy, the Netherlands and the United States**, and that designated fighter aircraft from **Turkey and Greece** also

⁵¹² Hans M. Kristensen and Robert S. Norris: “U.S. Tactical Nuclear Weapons in Europe,” *Bulletin of the Atomic Scientists*, No. 67-1, 2011, 64-73.

⁵¹³ Hans M. Kristensen & Matt Korda (2019), “Tactical Nuclear Weapons, 2019,” *Bulletin of the Atomic Scientists*, 75:5, 252-261, DOI: [10.1080/00963402.2019.1654273](https://doi.org/10.1080/00963402.2019.1654273).

⁵¹⁴ Steve Andreasen, Isabelle Williams, Brian Rose, Hans M. Kristensen, and Simon Lunn, “Building a Safe, Secure and Credible NATO Nuclear Posture,” *Nuclear Threat Initiative (NTI)*, January 2018 (https://media/nti.org/documents/NTI_NATO_RPT_Web.pdf).

⁵¹⁵ “NATO Parliament Report Confirms US Nuclear Bombs Stored in Belgium,” *Brussels Times*, July 16, 2019, 1.

⁵¹⁶ “A New Era for Nuclear Deterrence? Modernization, Arms Control, and Allied Nuclear Forces,” General Report by Senator (CA) Joseph A. Day, General Rapporteur, Defense and Security Committee, NATO Parliamentary Assembly (136 DSC 19 E rev.1 fin/Original: English/12 October 2019).

have DCA status, “but at a lower operational readiness.”⁵¹⁷ In 2004, NATO released a Fact Sheet stating that whereas during the Cold War a portion of the DCA force was available on quick-reaction alert (QRA) to respond in minutes, this readiness level had been reduced to “weeks” rather than “minutes” in 1999, and in 2002 the readiness of the entire force was further reduced from “weeks” to “months.”⁵¹⁸ The Fact Sheet included a bar graph showing that in the 1999 case, the overall DCA force had been segmented into different readiness levels, with some DCA aircraft at higher readiness levels than others. In effect, then, readiness levels are like a rheostat: they can be modulated down or modulated up, depending on the assessment of the threat.

Kristensen has explained some of the factors that can account for a particular nation’s lower readiness rating; e.g., pilots ceasing proficiency training in nuclear delivery and thus requiring re-certification or “mechanical and electronic equipment on the fighter aircraft needed to arms and deliver the nuclear bombs may have been removed and placed in storage.”⁵¹⁹ In addition to Lunn, other open sources also contend that the readiness level of Turkey’s F-16 DCA aircraft was lowered in the late 1990s. Paul Schulte agrees Turkey stopped training its F-16 pilots for the nuclear mission in the late 1990’s, and Aaron Stein suggests the aircraft were decertified “to save money.”⁵²⁰

Nuclear weapons vaults placed in “caretaker” status can obviously be brought back into active service, but that too takes a period of time, and hence warrants a lower readiness level category. Kristensen has maintained that the B61 storage vaults at Araxos Air Base in **Greece** have since 2001 been empty, and those at Balıkesir Air Base and Akinci Air Base in **Turkey** have been empty since 1996, but that all 3 had been upgraded in terms of their security and are maintained in a caretaker status.⁵²¹ These actions were apparently taken pursuant to the 1995

⁵¹⁷ Simon Lunn, “NATO Nuclear Policy: Reflections on Lisbon and Looking Ahead to the DDPR,” in *Reducing Nuclear Risks in Europe: A Framework for Action*, Steven Andreasen and Isabelle Williams (eds.) (Washington, DC: NTI Report, November 17, 2011), 24.

⁵¹⁸ NATO, “NATO’s Nuclear Forces in the New Security Environment,” NATO Issues, June 3, 2004, 6.

⁵¹⁹ Hans Kristensen, NRDC report, 68.

⁵²⁰ Aaron Stein, “Turkey’s Airplane-less Nuclear weapons: A Classic Crisis Stability Problem? (Updated),” *Turkey Wonk blog: Nuclear and Political Musings in Turkey and Beyond*, A WordPress.com site, April 15, 2014.

⁵²¹ Schulte, *NATO’s Protracted Debate over Nuclear Weapons* (Washington, DC: George Washington University Press, 2015), pp. 114-115. See also: *Ibid.*, 8.

Base Realignment and Closure (BRAC) round, which had an overseas component.⁵²²

On October 16, 2019 many media sources reported that President Trump had appeared to have confirmed the active presence of U.S. nuclear bombs at Incirlik Air Base, when, in response to a reporter's on-the-air question as to whether, in light of the tensions between the United States and Turkey, the weapons reportedly stored there were "safe," the President replied: "We're confident, and we have a great air base there – a very powerful air base."⁵²³

On May 28, 2021, the investigative journalism organization, *Bellingcat*, published an on-line article claiming to correlate detailed information on specific DCA bases in Europe and the vaults and Protective Aircraft Shelters (PAS) at those bases based on publicly accessible on-line "flashcards" used by USAF personnel assigned to various MUNSS to maintain proficiency in their required body of knowledge concerning the assets they were assigned to protect.⁵²⁴

For purposes of this dissertation, then, six U.S. allies - **Belgium, Italy, Greece, the Netherlands, Italy, Germany, Turkey** - will be *assumed* to be DCA participating nations, although all six are not assumed to be at the same level of responsiveness (readiness). There are no assertions in open-source literature that U.S. nuclear weapons are present now on the soil of **Canada, Denmark, Norway, Portugal, or Spain**, or that any of these U.S. allies contribute aircraft to NATO's DCA nuclear weapons-delivery mission, hence they are not assumed to be DCA allies.

⁵²² Stein, Turkey Wonk blog. For the U.S. European Command (EUCOM), the 1995 BRAC consolidated all U.S. Air Force flying operations at four bases: Lakenheath (UK), Ramstein (Germany), Aviano (Italy) and Incirlik (Turkey).

⁵²³ Aaron Blake, "Trump Appears to Confirm U.S. Nukes are in Turkey, an Admission the Would Break with Longstanding Protocol," *Washington Post*, October 16, 2019.

⁵²⁴ Foeke Postma, "US Soldiers Expose Nuclear Weapons Secrets Via Flashcard Apps," *Bellingcat* (on-line), May 28, 2021.