## **Notes**

<sup>&</sup>lt;sup>1</sup> Eugene V. Rostow, "A Practical Program for Peace: The Twentieth Anniversary of the Harmel Report," *Atlantic Community Quarterly* 25 (1987); Frédéric Bozo, "Détente versus Alliance: France, the United States and the Politics of the Harmel Report (1964–1968)," *Contemporary European History* 7, 3 (November 1998); Ronald D. Asmus, "Rebuilding the Atlantic Alliance," *Foreign Affairs* 82, 5 (September/October 2003).

<sup>&</sup>lt;sup>2</sup> http://cms.polsci.ku.dk/english/performance\_contract/Production\_\_\_servicecontract\_for\_2012.pdf/

<sup>&</sup>lt;sup>3</sup> The Centre for Military Studies project manual stipulates a set of quality control procedures for projects that are part of the research-based government services offered by the Centre. This report has been carried out by the Centre for Military Studies in accordance with the contract between the University of Copenhagen on behalf of the parties to the Danish Defence Agreement 2009–2014. For more information about the Centre, the quality control procedures, and the contract, see the Centre's homepage at http://www.cms.polsci.ku.dk.

<sup>&</sup>lt;sup>4</sup> James W. Forsyth, Jr., B. Chance Saltzman, and Gary Schaub, Jr., "Remembrance of Things Past: The Enduring Value of Nuclear Weapons," *Strategic Studies Quarterly* 4, 1 (Spring 2010); James W. Forsyth, Jr., B. Chance Saltzman, and Gary Schaub, Jr., "Minimum Deterrence and Its Critics," *Strategic Studies Quarterly* 4, 4 (Winter 2010); Joseph I. Coffey and Gary Schaub, Jr., "Extended Deterrence After the Cold War," paper presented at the 36<sup>th</sup> Annual Conference of the International Studies Association, Chicago, Illinois, February 21–25, 1995; Gary Schaub, Jr., "Nuclear Weapons and the New European Security Architecture," paper presented at the Joint Annual Meeting of the Northeastern Political Science Association and the International Studies Association–North East, Newark, New Jersey, November 10–12, 1993; Gary Schaub, Jr., "Back to the Future ... Again: Perpetuating Stability in Post-Cold War Europe," paper presented at the Joint Annual Meeting of the International Studies Association (South) and the International Security Studies Section of the ISA, Maxwell Air Force Base, Montgomery, Alabama, October 15–17, 1993; Gary Schaub, Jr., "START and Strategic Stability," paper presented at the 33<sup>rd</sup> Annual Convention of the International Studies Association, Atlanta, Georgia, April 1992; and Joseph I. Coffey with Gary Schaub, Jr., Deep Cuts and Extended Deterrence: START and the Implications for NATO, prepared for the United States Institute of Peace (Washington: U.S. Institute of Peace, 1992).

<sup>&</sup>lt;sup>5</sup> Gary Schaub, Jr., "Détente," in The Encyclopedia of Political Science, Volume 2 (Washington: CQ Press, 2011).

<sup>&</sup>lt;sup>6</sup> Hedley Bull, The Anarchical Society: A Study of Order in World Politics (London: Macmillan, 1977), pages 207–212; Daniel N. Nelson, editor, Soviet Allies: The Warsaw Pact and the Issue of Reliability (Boulder: Westview, 1984).

<sup>&</sup>lt;sup>7</sup> John Lewis Gaddis, "The Long Peace: Elements of Stability in the Postwar International System," *International Security* 10, 4 (Spring 1986); John J. Mearsheimer, "Back to the Future: Instability in Europe After the Cold War," *International Security* 15, 1 (Summer 1990).

<sup>&</sup>lt;sup>8</sup> NATO, "NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats," (Brussels: NATO, 1 September 2009), paragraph 5, available at http://www.nato.int/cps/en/natolive/official\_texts\_57218.htm, accessed 23 July 2013.

<sup>&</sup>lt;sup>9</sup> Michael Mandelbaum, "The Post-Cold War Settlement in Europe: A Triumph of Arms Control," *Arms Control Today* 27, 1 (March 1997).

<sup>&</sup>lt;sup>10</sup> "Deterrence and Defence Posture Review," Press Release (2012) 063 (20 May 2012), available at http://www.nato.int/cps/en/natolive/official\_texts\_87597.htm?mode=pressrelease, accessed 18 July 2012. *Emphasis* in original.

<sup>&</sup>lt;sup>11</sup> "Deterrence and Defence Posture Review," Press Release (2012) 063 (20 May 2012), available at http://www.nato.int/cps/en/natolive/official texts 87597.htm?mode=pressrelease, accessed 18 July 2012.

<sup>&</sup>lt;sup>12</sup> "Deterrence and Defence Posture Review," Press Release (2012) 063 (20 May 2012), available at http://www.nato.int/cps/en/natolive/official\_texts\_87597.htm?mode=pressrelease, accessed 18 July 2012.

<sup>&</sup>lt;sup>13</sup> Daryl G. Kimball, "NATO Agrees on New Arms Control Body," *Arms Control Now* (26 February 2013), available at http://armscontrolnow.org/2013/02/26/nato-agrees-on-new-arms-control-body/

<sup>&</sup>lt;sup>14</sup> "Deterrence and Defence Posture Review," Press Release (2012) 063 (20 May 2012), available at http://www.nato.int/cps/en/natolive/official\_texts\_87597.htm?mode=pressrelease, accessed 18 July 2012.

<sup>&</sup>lt;sup>15</sup> Donald G. Brennan, "Setting and Goals of Arms Control," in Donald G. Brennan, editor, Arms Control, Disarmament, and National Security (New York: George Braziller, 1961), page 20.

<sup>&</sup>lt;sup>16</sup> Thomas C. Shelling and Morton Halperin, Strategy and Arms Control (New York: Twentieth Century Fund, 1961), page 1.

<sup>&</sup>lt;sup>17</sup> Thomas C. Schelling, "Reciprocal Measures For Arms Stabilization," in Donald G. Brennan, editor, Arms Control, Disarmament, and National Security (New York: George Braziller, 1961), pages 168–169.

<sup>&</sup>lt;sup>18</sup> NATO, "Arms control, disarmament and non-proliferation in NATO," NATO website, available at http://www.nato.int/cps/en/natolive/topics 48895.htm, accessed 22 July 2013.

<sup>&</sup>lt;sup>19</sup> Jerome B. Wiesner, "Comprehensive Arms-Limitation Systems," in Donald G. Brennan, editor, Arms Control, Disarmament, and National Security (New York: George Braziller, 1961), page 198.

<sup>&</sup>lt;sup>20</sup> Jeffrey Larsen, "Arms Control," in The Encyclopedia of Political Science, Volume 1 (Washington: CQ Press, 2011), page 77.

<sup>&</sup>lt;sup>21</sup> NATO, "NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats" (Brussels: NATO, 1 September 2009), appendix, available at http://www.nato.int/cps/en/natolive/official\_texts\_57218.htm, accessed 23 July 2013.

<sup>&</sup>lt;sup>22</sup> NATO, "NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats" (Brussels: NATO, 1 September 2009), paragraph 5, available at http://www.nato.int/cps/en/natolive/official\_texts\_57218.htm, accessed 23 July 2013.

<sup>&</sup>lt;sup>23</sup> Bertrand Goldschmidt, "A Historical Survey of Nonproliferation Polices," *International Security* 2, 1 (Summer 1977), page 70.

<sup>&</sup>lt;sup>24</sup> "The Atomic Energy Act of 1946," *Bulletin of the Atomic Scientists* 2, 3/4 (August 1946); Raymond Dawson and Richard Rosecrance, "Theory and Reality in the Anglo-American Alliance," *World Politics* 19, 1 (October 1966).

<sup>&</sup>lt;sup>25</sup> David C. Elliott, "Project Vista and Nuclear Weapons in Europe," *International Security* 11, 1 (Summer 1986); John Lewis Gaddis, Strategies of Containment: A Critical Appraisal of Postwar American National Security Policy (Oxford: Oxford University Press, 1982), pages 167–168.

<sup>&</sup>lt;sup>26</sup> Lawrence S. Kaplan, NATO and the United States: The Enduring Alliance, Updated Edition (New York: Twayne, 1994), page 88; Henry D. Sokolski, "What Does the History of the NPT Tell Us about its Future?" in Henry D. Sokolski, editor, Reviewing the Nuclear Nonproliferation Treaty (NPT) (Carlisle: Strategic Studies Institute, May 2010), page 31.

<sup>&</sup>lt;sup>27</sup> Dawson and Rosecrance, "Theory and Reality in the Anglo-American Alliance," page 35.

<sup>&</sup>lt;sup>28</sup> Henry A. Kissinger, "The United States and Nassau," *Survival* 5, 3 (May-June 1963); Dawson and Rosecrance, "Theory and Reality in the Anglo-American Alliance," page 42; Richard E. Neustadt, Alliance Politics (New York: Columbia University Press, 1970); Donette Murray, Kennedy, Macmillan, and Nuclear Weapons (Basingstoke: Macmillan, 2000). This was formalized in the bilateral US–UK Mutual Defence Agreement of 1958.

<sup>&</sup>lt;sup>29</sup> Kaplan, NATO and the United States, pages 91–95.

<sup>&</sup>lt;sup>30</sup> There was great pressure to declassify the scientific studies behind many basic nuclear technologies, such as plutonium production. More stringent controls were applied to transferring technology, particularly military technology.

<sup>&</sup>lt;sup>31</sup> Goldschmidt, "A Historical Survey of Nonproliferation Polices," pages 71–74.

<sup>&</sup>lt;sup>32</sup> Goldschmidt, "A Historical Survey of Nonproliferation Polices," page 73.

<sup>&</sup>lt;sup>33</sup> Smoke, National Security and the Nuclear Dilemma, pages 139–154.

<sup>&</sup>lt;sup>34</sup> Smoke, National Security and the Nuclear Dilemma, pages 144–145; Bureau of Arms Control, Verification, and Compliance, United States Department of State, "Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water," available at http://www.state.gov/t/isn/4797.htm, accessed 18 November 2012.

<sup>&</sup>lt;sup>35</sup> Neither the People's Republic of China nor France joined the NPT regime until 1992. Indeed, the PRC pledged that it would "support the proliferation of nuclear weapons in order to break the hegemony of the superpowers," and proceeded to assist Pakistan with scientific personnel, design specifications, enriched uranium, tritium gas, and other assistance that permitted Pakistan to develop its own nuclear weapons program (P.R. Rajeswari, "The Missile Technology Control Regime: Chinese and US Positions," *Strategic Analysis* 22, 5 (August 1998), pages 738 and 742).

<sup>&</sup>lt;sup>36</sup> NPT text quoted by Goldschmidt, "A Historical Survey of Nonproliferation Polices," page 76.

<sup>&</sup>lt;sup>37</sup> Joseph I. Coffey, "Part I Introduction: Where We Are ...," *The Annals of the American Academy of Political and Social Science* 430 (March 1977), page 14; Seymour M. Hersch, The Samson Option: Israel's Nuclear Arsenal and American Foreign Policy (New York: Random House, 1991); Avner Cohen and Marvin Miller, "Bringing Israel's Bomb Out of the Basement," *Foreign Affairs* 89, 5 (September/October 2010); Victor Gilinsky, "Casting a Blind Eye: Kissinger and Nixon Finesse Israel's Bomb," in Henry D. Sokolski, editor, The Next Arms Race (Carlisle: Strategic Studies Institute, July 2012).

<sup>&</sup>lt;sup>38</sup> Albert Wohlstetter, "Nuclear Sharing: NATO and the N+1 Country Problem," *Foreign Affairs* 39, 3 (April 1961); John F. Kennedy, "The President's News Conference," 21 March 1963, online by Gerhard Peters and John T. Woolley, The American Presidency Project, available at http://www.presidency.ucsb.edu/ws/index.php?pid=9124, accessed 13 November 2012; Richard N. Rosecrance, The Dispersion of Nuclear Weapons: Strategy and Politics (New York: Columbia University Press, 1964); Lawrence Scheinman, Atomic Energy Policy in France under the Fourth Republic (Princeton: Princeton University Press, 1965); Albert Wohlstetter, "Spreading the Bomb Without

Quite Breaking the Rules," in Henry D. Sokolski, editor, Reviewing the Nuclear Nonproliferation Treaty (NPT) (Carlisle: Strategic Studies Institute, May 2010), page 140; Matthew Fuhrmann, "Spreading Temptation: Proliferation and Peaceful Nuclear Cooperation Agreements," *International Security* 34, 1 (Summer 2009); George H. Quester, The Politics of Nuclear Proliferation (Baltimore: Johns Hopkins University Press, 1973); and Ashok Kapur, "Nth Powers of the Future," *Annals of the American Academy of Political and Social Science* 430 (March 1977).

<sup>&</sup>lt;sup>39</sup> Source: International Law and Policy Institute Nuclear Weapons Project, "The Treaty on the Non-Proliferation of Nuclear Weapons," available at: http://nwp.ilpi.org/wp-content/uploads/2011/10/NPT members.png.

<sup>&</sup>lt;sup>40</sup> United Nations Security Council Resolutions 1696, 1737, 1747, 1803, 1835, and 1929. See Lauren Weiss, "UN Security Council Resolutions on Iran," Arms Control Association website, available at http://www.armscontrol.org/factsheets/Security-Council-Resolutions-on-Iran, accessed 25 July 2013.

<sup>&</sup>lt;sup>41</sup> Ian Anthony, Christer Ahlstrom, and Vitaly Fedchenko, Reforming Nuclear Export Controls: The Future for the Nuclear Suppliers Group SIPRI Research Report Number 22 (Oxford: Oxford University Press, 2007); Scott D. Sagan, "The International Security Implications of U.S. Domestic Nuclear Power Decisions," Prepared for the Blue Ribbon Commission on America's Nuclear Future (18 April 2011).

<sup>&</sup>lt;sup>42</sup> Daniel Horner, "IAEA Board Approves Fuel Bank Plan," *Arms Control Today* (January/February 2011), available at http://www.armscontrol.org/act/2011\_01-02/Fuel%20Bank

<sup>&</sup>lt;sup>43</sup> Sagan, "The International Security Implications of U.S. Domestic Nuclear Power Decisions," page 4.

<sup>&</sup>lt;sup>44</sup> Savita Pande, "Missile Technology Control Regime: Impact Assessments," *Strategic Analysis* 23, 6 (September 1999), page 923.

<sup>&</sup>lt;sup>45</sup> Pande, "Missile Technology Control Regime," pages 923–924.

<sup>&</sup>lt;sup>46</sup> Arms Control Association, "Fact Sheet: The Missile Technology Control Regime at a Glance" (Washington: Arms Control Association, September 2004), page 1.

<sup>&</sup>lt;sup>47</sup> Arms Control Association, "Fact Sheet: The Missile Technology Control Regime at a Glance," page 1; Principal Deputy Assistant Secretary, Bureau of International Security and Nonproliferation, "The Missile Technology Control Regime in U.S. Nonproliferation Strategy" (Washington: Department of State, 30 July 2012), page 2.

<sup>&</sup>lt;sup>48</sup> Pande, "Missile Technology Control Regime," pages 924–925.

<sup>&</sup>lt;sup>49</sup>Principal Deputy Assistant Secretary, Bureau of International Security and Nonproliferation, "The Missile Technology Control Regime in U.S. Nonproliferation Strategy," page 1.

<sup>&</sup>lt;sup>50</sup> Arms Control Association, "Fact Sheet: The Missile Technology Control Regime at a Glance," pages 1–2; Stephanie Lieggi, "From Proliferator to Model Citizen? China's Recent Enforcement of Nonproliferation-Related Trade Controls and its Potential Positive Impact in the Region," *Strategic Studies Quarterly* 4, 2 (Summer 2010).

<sup>&</sup>lt;sup>51</sup> Source: Wikipedia. Available at: http://upload.wikimedia.org/wikipedia/commons/2/23/MTCR Map.GIF

<sup>&</sup>lt;sup>52</sup> Arms Control Association, "Fact Sheet: The Missile Technology Control Regime at a Glance," page 1.

- Fisher Smoke, National Security and the Nuclear Dilemma: An Introduction to the American Experience, Second Edition (New York: Random House, 1984), page 53. Matthew A. Evangelista, "Stalin's Postwar Army Reappraised," *International Security* 7, 3 (Winter 1982/1983) provides a critical assessment of the size and offensive capabilities of Soviet forces in 1947–1948, "which coincides with the completion of Soviet demobilization" (page 111). Evangelista argues that Western perceptions of Soviet capability were exaggerated; nevertheless, they drove Western defense planning and strategic thinking to a considerable extent.
- <sup>56</sup> Secretary of Defense Forrestal wrote to President Truman: "Throughout my trip in Europe I was increasingly impressed by the fact that the only balance that we have against the overwhelming manpower of the Russians, and therefore the chief deterrent to war, is the threat of immediate retaliation with the atomic bomb," (Walter Millis with E.S. Duffeld, editors, The Forrestal Diaries, New York: Viking, 1951), page 538.
- <sup>57</sup> This is the "stability–instability paradox," whereby the inability of either side to disarm the other at the strategic nuclear level (stability) reduces the credibility of the threat to escalate to that level in the event of conventional war, thereby making such a war more likely (instability). See Glenn H. Snyder, "The Balance of Power and the Balance of Terror," in Paul Seabury, editor, The Balance of Power (San Francisco: Chandler, 1965) and Robert Jervis, The Illogic of American Nuclear Strategy (Ithaca, NY: Cornell University Press, 1984).

<sup>&</sup>lt;sup>53</sup> Principal Deputy Assistant Secretary, Bureau of International Security and Nonproliferation, "The Missile Technology Control Regime in U.S. Nonproliferation Strategy," page 2.

<sup>&</sup>lt;sup>54</sup> Bernard Brodie, "Nuclear Weapons: Strategic or Tactical?" *Foreign Affairs* 32, 2 (January 1954); Henry A. Kissinger, Diplomacy (Boston: Simon and Schuster, 1994), pages 607–608.

<sup>&</sup>lt;sup>58</sup> Thomas C. Schelling, The Strategy of Conflict (London: Oxford University Press, 1960).

<sup>&</sup>lt;sup>59</sup> Other agreements that shaped and regulated the relationship between the United States and Soviet Union, such as the establishment of a "hotline" to facilitate crisis communication and those that limited superpower competition geographically (the Antarctic Treaty, the Seabed Treaty, and the Outer Space Treaty) contributed greatly to reducing the risk of war. See Gaddis, "The Long Peace" and Alexander L. George, Avoiding War: Problems of Crisis Management (Boulder: Westview, 1991).

 $<sup>^{60}</sup>$  SALT limited the United States to 1,054 ICBM silos and 657 SLBM tubes on SSBNs. It limited the Soviet Union to 1,607 silos and 740 SLBM launch tubes.

<sup>&</sup>lt;sup>61</sup> Throw-weight is defined "for an ICBM or SLBM the final stage of which executes a procedure for dispensing reentry vehicles, the aggregate weight of that stage including its propellant and elements not separated from the stage, at the time at which the first release of a reentry vehicle or penetration aid occurs, and its payload" (United States Department of State), "Protocol on ICBM and SLBM Throw-weight Relating to the Treaty between the United States of America and the Union of Soviet Socialist Republics on the Reduction and Limitation of Strategic Offensive Arms," page 1, available at: http://www.state.gov/documents/organization/27381.pdf).

<sup>&</sup>lt;sup>62</sup> But not entirely. See Gary Schaub, Jr. "START and Strategic Stability," paper presented at the 33<sup>rd</sup> Annual Convention of the International Studies Association, Atlanta, Georgia, (April 1992); Keir A. Lieber and Daryl G. Press. "The End of MAD? The Nuclear Dimension of U.S. Primacy," *International Security* 30, 4 (Spring 2006); Keir A. Lieber and Daryl G. Press, "The Rise of U.S. Nuclear Primacy," *Foreign Affairs* 85, 2 (March/April 2006); and Keir A. Leiber and Daryl G. Press, "Correspondence: The Short Shadow of U.S. Primacy?" *International Security* 31, 3 (Winter 2006/07).

<sup>&</sup>lt;sup>63</sup> "First Agreed Statement Relating to the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems of May 26, 1972," available at http://armscontrol.org/act/1997\_09/docsept, accessed 10 November 2012.

<sup>&</sup>lt;sup>64</sup> Wade Boese, "Bush Announces U.S. Intent to Withdraw From ABM Treaty," *Arms Control Today* (January/February 2002), available at http://armscontrol.org/act/2002\_01-02/abmjanfeb02, accessed 10 November 2012.

<sup>&</sup>lt;sup>65</sup> Wade Boese, "U.S. Withdraws from ABM Treaty; Global Response Muted," *Arms Control Today* (July/August 2002), available at http://armscontrol.org/act/2002\_07-08/abmjul\_aug02, accessed 10 November 2012.

<sup>&</sup>lt;sup>66</sup> Jeff Kueter, "Missile Defense and Arms Control," in Henry D. Sokolski, editor, The Next Arms Race (Carlisle: Strategic Studies Institute, July 2012).

<sup>&</sup>lt;sup>67</sup> David Alan Rosenberg, "U.S. Nuclear War Planning, 1945–1960," in Desmond Ball and Jeffrey Richelson, editors, Strategic Nuclear Targeting (Ithaca: Cornell University Press, 1986).

<sup>&</sup>lt;sup>68</sup> John Lewis Gaddis, Strategies of Containment: A Critical Appraisal of Postwar American National Security Policy (Oxford: Oxford University Press, 1982); John Lewis Gaddis, We Now Know: Rethinking Cold War History (Oxford: Clarendon, 1997); Richard K. Betts, Nuclear Blackmail and Nuclear Balance (Washington: The Brookings Institution, 1987).

<sup>&</sup>lt;sup>69</sup> David Alan Rosenberg, "The Origins of Overkill: Nuclear Weapons and American Strategy, 1945–1960," *International Security* 7, 4 (Spring 1983); Robert S. Norris, William M. Arkin, and William Burr, "Where They Were," *Bulletin of the Atomic Scientists* (November/December 1999).

<sup>&</sup>lt;sup>70</sup> Bernard Brodie, "Unlimited Weapons and Limited War," *The Reporter* 11, 9 (November 18, 1954); Henry A. Kissinger, Nuclear Weapons and Foreign Policy (New York: Harper & Brothers, 1957); David C. Elliott, "Project Vista and Nuclear Weapons in Europe," *International Security* 11, 1 (Summer 1986); and Thomas C. Schelling, "Nuclear Strategy in Europe," *World Politics* 14, 3 (April 1962).

<sup>&</sup>lt;sup>71</sup> Joseph I. Coffey, Arms Control and European Security: A Guide to East–West Negotiations (New York: Praeger, 1977), page 106; Lawrence S. Kaplan, NATO and the United States: The Enduring Alliance, Updated Edition (New York: Twayne, 1994); Lawrence Freedman, The Evolution of Nuclear Strategy (New York: St. Martin's, 1983), page 304; Lawrence Freedman, "British Nuclear Targeting," in Desmond Ball and Jeffrey Richelson, editors, Strategic Nuclear Targeting (Ithaca: Cornell University Press, 1986), page 115.

<sup>&</sup>lt;sup>72</sup> Source: International Law and Policy Institute Nuclear Weapons Project, "The Nuclear Umbrella States," available at: http://nwp.ilpi.org/?p=1221.

<sup>&</sup>lt;sup>73</sup> Richard Smoke, National Security and the Nuclear Dilemma: An Introduction to the American Experience, Second Edition (New York: Random House, 1984), pages 197–200.

<sup>&</sup>lt;sup>74</sup> Bernard Rogers, "Sword and Shield: ACE Attack of Warsaw Pact Follow-On Forces," *NATO's Sixteen Nations* 28, 1 (1983); Bernard W. Rogers, "Follow-on Forces Attack (FOFA): Myths and Realities," *NATO Review* 32, 6 (1984); Boyd D. Sutton, John R. Landry, Malcolm B. Armstrong, Howell M. Estes III, and Wesley K. Clark, "Deep Attack Concepts and the Defence of Central Europe," *Survival* 26, 2 (1984).

<sup>&</sup>lt;sup>75</sup> Phil Williams and William Wallace, "Emerging Technologies and European Security," *Survival* 26, 2 (1984); Jeffrey Record and David B. Rivkin, Jr., "Defending Post-INF Europe," *Foreign Affairs* 66, 4 (Spring 1988).

<sup>&</sup>lt;sup>76</sup> Catherine McArdle Kelleher, "The Present As Prologue: Europe and Theater Nuclear Modernization," *International Security* 5, 4 (Spring 1981); Joseph I. Coffey, Deterrence and Arms Control: American and West German Perspectives (Denver: Graduate School of International Studies, University of Denver, 1985); Christopher Kirkey, "The NATO Alliance and The INF Treaty," *Armed Forces and Society* 16, 2 (Winter 1990).

<sup>&</sup>lt;sup>77</sup> Lawrence S. Kaplan, NATO and the United States: The Enduring Alliance. Updated Edition (New York: Maxwell Macmillan, 1994), page 154.

<sup>&</sup>lt;sup>78</sup> Kaplan, NATO and the United States, page 154.

<sup>&</sup>lt;sup>79</sup> Arms Control Association, "The Intermediate-Range Nuclear Forces (INF) Treaty at a Glance," available at http://www.armscontrol.org/factsheets/INFtreaty, accessed 20 August 2012.

<sup>&</sup>lt;sup>80</sup> Susan J. Koch, The Presidential Nuclear Initiatives of 1991–1992. Center for the Study of Weapons of Mass Destruction Case Study 5 (Washington: National Defense University Press, September 2012), pages 3–4; Peter Grier, "When the Nuke Plan Changed," *Air Force Magazine* 94, 9 (September 2011), page 120.

<sup>&</sup>lt;sup>81</sup> Indeed, "close allies of the United States were apprised of the PNI only at the most senior level, and just hours before the announcement" (Koch, The Presidential Nuclear Initiatives of 1991–1992, page 9).

<sup>82</sup> Grier, "When the Nuke Plan Changed," page 120.

Arms Control Association, "The Presidential Nuclear Initiatives (PNIs) on Tactical Nuclear Weapons at a Glance," available at http://armscontrol.org/factsheets/pniglance, accessed 29 October 2012; Dunbar Lockwood, "U.S. Completes Announced Tactical Nuclear Withdrawal," *Arms Control Today* 22, 6 (July/August 1992), page 27.

<sup>&</sup>lt;sup>84</sup> Zoltan Barany, Democratic Breakdown and the Decline of the Russian Military (Princeton: Princeton University Press, 2009).

<sup>&</sup>lt;sup>85</sup> The National Security Strategy of the Russian Federation until 2020, Presidential Decree No. 537, Moscow, Russia, 12 May 2009, quoted by Daniel Goure, "Caught Between Scylla and Charybdis: The Relationship Between Conventional and Nuclear Capabilities in Russian Military Thought," in Stephen J. Blank, editor, Russian Nuclear Weapons: Past, Present, and Future (Carlisle: Strategic Studies Institute, November 2011), page 266.

<sup>&</sup>lt;sup>86</sup> Goure, "Caught Between Scylla and Charybdis," page 267.

<sup>&</sup>lt;sup>87</sup> George E. Hudson, "Russian Perspective on Tactical Nuclear Weapons," in Tom Nichols, Douglas Stuart, and Jeffrey D. McCausland, editors, Tactical Nuclear Weapons and NATO (Carlisle: Strategic Studies Institute, April 2012), page 113; Jacob W. Kipp, "Asian Drivers of Russia's Nuclear Force Posture," in Henry D. Sokolski, editor, The Next Arms Race (Carlisle: Strategic Studies Institute, July 2012).

<sup>&</sup>lt;sup>88</sup> John J. Mearsheimer, Conventional Deterrence, (Ithaca: Cornell University Press, 1983); Stephen D. Biddle, "Offense, Defense, and the End of the Cold War: Criteria for an Appropriate Balance," *Defense Analysis* 11, 1 (April 1995); Sean Lynn-Jones, "Offense–Defense Theory and its Critics," *Security Studies* 4, 4 (Summer 1995); Charles L. Glaser and Chaim Kaufmann, "What is the Offense–Defense Balance and How Can We Measure It?" *International Security* 22, 4 (Spring 1998); Stephen Van Evera, "Offense, Defense, and the Causes of War," *International Security* 22, 4 (Spring 1998); James W. Davis Jr. "Correspondence: Taking Offense at Offense–Defense Theory," *International Security* 23, 3 (Winter 1998/99); Bernard I. Finel, "Correspondence: Taking Offense at Offense–Defense Theory," *International Security* 23, 3 (Winter 1998/99); Stacie E. Goddard, "Correspondence: Taking Offense at Offense–

Defense Theory," *International Security* 23, 3 (Winter 1998/99); Charles L. Glaser and Chaim Kaufmann, "Correspondence: Taking Offense at Offense–Defense Theory," *International Security* 23, 3 (Winter 1998/99); Stephen Van Evera, "Correspondence: Taking Offense at Offense–Defense Theory," *International Security* 23, 3 (Winter 1998/99); Peter Liberman, "The Offense–Defense Balance, Interdependence, and War," *Security Studies* 9, 1/2 (Autumn 1999/Winter 2000).

<sup>&</sup>lt;sup>89</sup> Mancur Olson, Jr. and Richard Zeckhauser, "An Economic Theory of Alliances," *The Review of Economics and Statistics* 48, 3 (August 1966); Glenn Palmer, "Corralling the Free Rider: Deterrence and the Western Alliance," *International Studies Quarterly* 34, 2 (June 1990); Todd Sandler, "The Economic Theory of Alliances: A Survey," *Journal of Conflict Resolution* 37, 3 (September 1993); John A.C. Conybeare, "The Portfolio Benefits of Free Riding in Military Alliance," *International Studies Quarterly* 38, 3 (September 1994).

<sup>&</sup>lt;sup>90</sup> Henry A. Kissinger, White House Years (Boston: Little, Brown and Company, 1979), page 399, *emphasis* in original.

<sup>&</sup>lt;sup>91</sup> Kissinger, White House Years, page 401.

<sup>&</sup>lt;sup>92</sup> Smoke, National Security and the Nuclear Dilemma, pages 195–196.

<sup>&</sup>lt;sup>93</sup> Kissinger, White House Years, page 402. For how the Soviets capitalized on their position, see Jack Snyder, "Limiting Offensive Conventional Forces: Soviet Proposals and Western Options," *International Security* 12, 4 (Spring 1988).

<sup>&</sup>lt;sup>94</sup> Jonathan Dean, "MBFR: From Apathy to Accord," *International Security* 7, 4 (Spring 1983).

<sup>&</sup>lt;sup>95</sup> Indeed, the Soviet Union redeployed "some 17,000 tanks, 25,000 ACV and 34,000 pieces of artillery ... east of the Urals" in the three years prior to signing CFE (International Institute for Strategic Studies, Strategic Survey 1990–1991 (London: Brassey's, May 1991), page 249).

<sup>&</sup>lt;sup>96</sup> Richard Weitz, "The Potential Demise of the CFE Treaty: A Major Concern for Turkey," *Turkey Analyst* 4, 8 (24 April 2011), available at: http://www.crethiplethi.com/the-potential-demise-of-the-cfe-treaty-a-major-concernfor-turkey/islamic-countries/turkey/2011/.

<sup>&</sup>lt;sup>97</sup> Arms Control Association, "The Conventional Armed Forces in Europe (CFE) Treaty and the Adapted CFE Treaty at a Glance," available at http://www.armscontrol.org/factsheet/cfe, accessed 29 October 2012.

<sup>&</sup>lt;sup>98</sup> International Institute for Strategic Studies, Strategic Survey 1990–1991, page 247.

<sup>&</sup>lt;sup>99</sup> International Institute for Strategic Studies, Strategic Survey 1990–1991, pages 248–249.

<sup>&</sup>lt;sup>100</sup> Richard A. Falkenrath, "Resolving the CFE 'Flank' Dispute," *Arms Control Today* 25, 4 (May 1995); Richard A. Falkenrath, "The CFE Flank Dispute: Waiting in the Wings," *International Security* 19, 4 (Spring 1995); Crispin Hain-Cole, "Taking up the Challenge of CFE Treaty Adaptation," *NATO Review* 45, 6 (November/December 1997); Jeffrey D. McCausland, "NATO and Russian Approaches to 'Adapting' the CFE Treaty," *Arms Control Today* 27, 5 (August 1997); Jeffrey D. McCausland, "European/Eurasian Security and the Treaty on Conventional Armed Forces in Europe," in Stephen J. Blank and Louis H. Jordan, Jr., editors, Arms Control and European Security (Carlisle: Strategic Studies Institute, August 2012).

- <sup>103</sup> Wade Boese, "Russia Suspends CFE Treaty Implementation," *Arms Control Today* (January/February 2008), available at http://www.armscontrol.org/act/2008\_01-02/cfe, accessed 11 November 2012; Paul Schulte, "The Precarious and Far-Reaching Current Undecidability of the Conventional Forces in Europe Treaty," in Stephen J. Blank and Louis H. Jordan, Jr., editors, Arms Control and European Security (Carlisle: Strategic Studies Institute, August 2012), page 7; McCausland, "European/Eurasian Security and the Treaty on Conventional Armed Forces in Europe," page 36.
- <sup>104</sup> State Department spokeswoman Victoria Nuland, quoted in Arms Control Association, "The Conventional Armed Forces in Europe (CFE) Treaty and the Adapted CFE Treaty at a Glance."
- <sup>105</sup> State Department Press Release, quoted in Arms Control Association, "The Conventional Armed Forces in Europe (CFE) Treaty and the Adapted CFE Treaty at a Glance."
- <sup>106</sup> NATO, "NATO's Role in Conventional Arms Control: Conventional Arms Control Agreements: The Conventional Forces in Europe (CFE) Treaty," available at http://www.nato.int/cps/en/natolive/topics\_48896.htm, accessed 25 July 2013.
- <sup>107</sup> Schulte, "The Precarious and Far-Reaching Current Undecidability of the Conventional Forces in Europe Treaty," page 9.
- <sup>108</sup> Schulte, "The Precarious and Far-Reaching Current Undecidability of the Conventional Forces in Europe Treaty," page 10.
- <sup>109</sup> In 2011, NATO's collective defense spending was \$1.039 trillion while Russian defense spending was \$71.853 billion—or 6.9% of NATO's (in current 2011 U.S. dollars) (Stockholm Peace Research Institute, SIPRI Military Expenditure Database, available at http://milexdata.sipri.org/files/?file=SIPRI+milex+data+1988-2011.xls, accessed 20 November 2012).
- <sup>110</sup> North Atlantic Treaty Organization, Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization, Adopted by the Heads of State and Government in Lisbon (Brussels: North Atlantic Treaty Organization, 2010), pages 2–3.
- <sup>111</sup> Stephen Blank, "Russia Challenges the Obama Administration," *Op-Ed* (Carlisle: Strategic Studies Institute, December 2008), available at http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubid=900, accessed 19 November 2012.
- <sup>112</sup> "Deterrence and Defence Posture Review," Press Release (2012) 063 (20 May 2012), available at http://www.nato.int/cps/en/natolive/official\_texts\_87597.htm?mode=pressrelease, accessed 18 July 2012.
- <sup>113</sup> "Deterrence and Defence Posture Review," Press Release (2012) 063 (20 May 2012), available at http://www.nato.int/cps/en/natolive/official\_texts\_87597.htm?mode=pressrelease, accessed 18 July 2012.

Wade Boese, "CFE Adapted at OSCE Summit in Istanbul," *Arms Control Today* 29, 7 (November 1999), available at http://www.armscontrol.org/act/1999\_11/cfeno99, accessed 11 November 2012; McCausland, "European/Eurasian Security and the Treaty on Conventional Armed Forces in Europe," pages 33–34.

<sup>&</sup>lt;sup>102</sup> McCausland, "European/Eurasian Security and the Treaty on Conventional Armed Forces in Europe," page 34.

- "Deterrence and Defence Posture Review," Press Release (2012) 063 (20 May 2012), available at http://www.nato.int/cps/en/natolive/official\_texts\_87597.htm?mode=pressrelease, accessed 18 July 2012. *Emphasis* in original.
- <sup>115</sup> Malcolm Chalmers and Andrea Berger, "Introduction," in Hugh Chalmers, Malcolm Chalmers, and Andrea Berger, editors, A Problem Deferred? NATO's Non-Strategic Nuclear Weapons After Chicago (London: Royal United Services Institute, October 2012), page 1.
- <sup>116</sup> Damon Coletta, "Deterrence Logic and NATO's Nuclear Posture," *Strategic Studies Quarterly* 7, 1 (Spring 2013); Hans M. Kristensen, U.S. Nuclear Weapons in Europe: A Review of Post-Cold War Policy, Force Levels, and War Planning (Washington: Natural Resources Defense council, February 2005), pages 24–35.
- "Remarks by President Barak Obama, Hradcany Square, Prague, Czech Republic" (Washington: The White House, Office of the Press Secretary, 5 April 2009), available at: http://www.whitehouse.gov/the press office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered.
- <sup>118</sup> Nuclear Posture Review Report (Washington: Department of Defense, April 2010), available at: http://www.defense.gov/npr/docs/2010%20nuclear%20posture%20review%20report.pdf.
- <sup>119</sup> Chalmers and Berger, "Introduction," page 1; George Perkovich, Malcolm Chalmers, Steven Pifer, Paul Schulte, and Jaclyn Tandler, Looking Beyond the Chicago Summit: Nuclear Weapons in Europe and the Future of NATO (Washington: Carnegie Endowment for International Peace, april 2012), page 3.
- <sup>120</sup> Karl-Heinz Kamp, "NATO's New Nuclear Consensus," in Hugh Chalmers, Malcolm Chalmers, and Andrea Berger, editors, A Problem Deferred? NATO's Non-Strategic Nuclear Weapons After Chicago (London: Royal United Services Institute, October 2012), page 7.
- <sup>121</sup> "Remarks by President Barak Obama, Hradcany Square, Prague, Czech Republic."
- 122 Kamp, "NATO's New Nuclear Consensus."
- 123 "Remarks by President Barak Obama, Hradcany Square, Prague, Czech Republic."
- <sup>124</sup> Hans M. Kristensen, Non-Strategic Nuclear Weapons (Washington: Federation of American Scientists, May 2012), page 17.
- <sup>125</sup> Kristensen, U.S. Nuclear Weapons in Europe, pages 55–59.
- <sup>126</sup> Coletta, however, argues that they will do so nonetheless. See Coletta, "Deterrence Logic and NATO's Nuclear Posture."
- <sup>127</sup> Kamp, "NATO's New Nuclear Consensus," page 9.
- "Deterrence and Defence Posture Review," Press Release (2012) 063 (20 May 2012), available at http://www.nato.int/cps/en/natolive/official\_texts\_87597.htm?mode=pressrelease, accessed 18 July 2012.
- <sup>129</sup> "The Nuclear Planning Group (NPG)," available at http://www.nato.int/cps/en/natolive/topics 50069.htm.
- $^{130}$  Denmark also possesses 14 spare F-16 A/B MLU aircraft. "Denmark," F-16.net, available at http://www.f-16.net/f-16\_users\_article3.html.

- "Deterrence and Defence Posture Review," Press Release (2012) 063 (20 May 2012), available at http://www.nato.int/cps/en/natolive/official\_texts\_87597.htm?mode=pressrelease, accessed 18 July 2012.
- "Deterrence and Defence Posture Review," Press Release (2012) 063 (20 May 2012), available at http://www.nato.int/cps/en/natolive/official\_texts\_87597.htm?mode=pressrelease, accessed 18 July 2012.
- <sup>136</sup> NATO, "Ballistic Missile Defence," (8 May 2012), available at http://www.nato.int/cps/en/natolive/topics\_49635.htm, accessed 23 January 2013.
- <sup>137</sup> Quoted by Steven Pifer, Missile Defense in Europe: Cooperation or Contention? (Washington: Brookings Institution, May 2012), pages 15–16.

- <sup>139</sup> Arms Control Association, "Worldwide Ballistic Missile Inventories," available at https://www.armscontrol.org/factsheets/missiles, accessed 29 October 2012.
- <sup>140</sup> Arms Control Association, "The Intermediate-Range Nuclear Forces (INF) Treaty at a Glance," available at www.armscontrol.org/factsheets/INFtreaty, accessed 29 October 2012.
- <sup>141</sup> Elaine M. Grossman, "U.S. Brass Reviews Prompt Global Strike, Mulling Submarine-Fired Arms," *Global Security Newswire* (6 November 2012).

<sup>&</sup>lt;sup>131</sup> These are the four original European Participating Air Force (EPAF) countries. "Denmark," F-16.net, available at http://www.f-16.net/f-16\_users\_article3.html.

<sup>&</sup>lt;sup>132</sup> Kristensen, U.S. Nuclear Weapons in Europe, page 42.

<sup>&</sup>lt;sup>133</sup> Kamp, "NATO's New Nuclear Consensus," page 10.

<sup>&</sup>lt;sup>138</sup> Quoted by Steven Pifer, Missile Defense in Europe, page 15.

<sup>&</sup>lt;sup>142</sup> Department of Defence, Nuclear Posture Review Report (Washington: Department of Defence, April 2010).

<sup>&</sup>lt;sup>143</sup> James Forsyth, Bradley Chance Saltzman, and Gary Schaub, Jr., "Remembrance of Things Past: The Enduring Value of Nuclear Weapons," *Strategic Studies Quarterly* 4, 1 (Spring 2010); Gary Schaub, Jr., and James W. Forsyth, Jr., "An Arsenal We Can All Live With," *The New York Times* (24 May 2010); James Forsyth, Bradley Chance Saltzman, and Gary Schaub, Jr., "Minimum Deterrence and Its Critics," *Strategic Studies Quarterly* 4, 4 (Winter 2010); Elaine M. Grossman, "U.S. can safely take deeper nuclear arms cuts, senior Defense official says," *Global Security Newswire* (16 February 2012); Henry A. Kissinger and Brent Scowcroft, "Nuclear Weapon Reductions Must be Part of Strategic Analysis," *The Washington Post* (22 April 2012); Thom Shanker, "Former Commander of U.S. Nuclear Forces Calls for Large Cut in Warheads," *The New York Times* (15 May 2012); Robert A. Manning, Envisioning 2030: US Strategy for a Post-Western World (Washington: The Atlantic Council, 2012), pages 47–49.

David J. Baylor, "Considerations for a US Nuclear Force Structure Below a 1,000-Warhead Limit," *Strategic Studies Quarterly* 5, 2 (Summer 2011), page 55, Table 1: Global Nuclear Weapons Inventories, 1945–2010. Jim Wolf, "China Submarines Soon to Carry Nukes, Draft U.S. Report Says," *Reuters* (8 November 2012).

Douglas Seay, "What are the Soviets' Objectives in their Foreign, Military, and Arms Control Policies?" in Lynn Eden and Steven E. Miller, editors, Nuclear Arguments: Understanding the Strategic Nuclear Arms and Arms

Control Debates (Ithaca, NY: Cornell University Press, 1989); George F. Kennan, "Toward Peace on Two Fronts" *Christianity and Crisis* (13 December 1982).

<sup>&</sup>lt;sup>146</sup> Daryl G. Kimball, "NATO Agrees on New Arms Control Body," *Arms Control Now* (26 February 2013), available at http://armscontrolnow.org/2013/02/26/nato-agrees-on-new-arms-control-body/

<sup>&</sup>quot;Deterrence and Defence Posture Review," Press Release (2012) 063 (20 May 2012), available at http://www.nato.int/cps/en/natolive/official\_texts\_87597.htm?mode=pressrelease, accessed 18 July 2012.

<sup>&</sup>lt;sup>148</sup> Quoted in "Russia calls on NATO to Review Cold War Methods of Arms Control," *RT* (25 July 2013), available at http://rt.com/politics/russia-nato-conventional-control-572/, accessed 25 July 2013.

<sup>&</sup>quot;Russia calls on NATO to Review Cold War Methods of Arms Control," *RT* (25 July 2013), available at http://rt.com/politics/russia-nato-conventional-control-572/, accessed 25 July 2013.