

## Notes

<sup>1</sup> Paul Huth and Bruce Russett, "What Makes Deterrence Work?: Cases from 1900 to 1980," in World Politics, vol. XXXVI, no. 4, July 1984, p. 503 and p. 523 and Bruce M. Russett, "The Calculus of Deterrence," in his Power and Community in World Politics (San Francisco: W.H. Freeman & Company, 1974), p. 210 and p. 213.

<sup>2</sup> Russett, "The Calculus of Deterrence," p. 214.

<sup>3</sup> For instance, see Masashi Nishihara, "Expanding Japan's Credible Defense Role," International Security, vol. 8, no. 3, Winter 1983-84, pp. 198-199 and Hiroomi Kurisu, Kaku-senso no Ronri [Logic of Nuclear War] (Tokyo: Futami Shobo, n.d.), pp. 272-274.

<sup>4</sup> Nishihara, "Expanding Japan's Credible Defense Role," pp. 198-199.

<sup>5</sup> Ibid., p. 198.

<sup>6</sup> The Japan Times, trans., Defense of Japan: 1981 (Tokyo: The Japan Times, 1981), by Defense Agency, p. 158.

<sup>7</sup> Ibid., pp. 158-159.

<sup>8</sup> Ibid., p. 158.

<sup>9</sup> Ibid. Nine months after the signature of the Treaty on the Non-proliferation of Nuclear Weapons, the Japanese government reiterated this legal position in the first post-World War II White Paper on Defense published in October 1970 under the direction of the Director General of the Defense Agency, Yasuhiro Nakasone. It stated: "... if small-size nuclear weapons are within the scale of real power needed for the minimum necessary limit for self-defense, and if they are such as will not be a threat of aggression toward other countries, it is possible to say that possession thereof is possible, in legal theory." See Japan, Defense Agency, Boei Hakusho: Showa 45 [White Paper on Defense: 1979] (Tokyo: Ministry of Finance Printing Bureau, 1970), p. 48.

<sup>10</sup> The Asahi Shimbun, Evening Edition, December 11, 1967.

<sup>11</sup> Refer to the reports on the debate held in the Diet on December 11, 1967 in The Mainichi Shimbun, December 12, 1967.

<sup>12</sup> Takuya Kubo, "Meaning of the U.S. Nuclear Umbrella for Japan," in Franklin B. Weinstein, ed., U.S.-Japan Relations and the Security of East Asia: The Next Decade (Boulder: Westview Press, 1978), p. 109.

<sup>13</sup> Ibid.

<sup>14</sup> Fred Greene, Stresses in U.S.-Japanese Security Relations

(Washington, D.C.: The Brookings Institution, 1975), p. 95.

15 Ibid.

16 The Asahi Shimbun, June 17, 1975.

17 The Yomiuri Shimbun, February 2, 1988.

18 Refer to Article 2 of the Basic Law on Atomic Energy and Article X of the Agreement for Cooperation Between the Government of the United States of America and the Government of Japan Concerning Civil Uses of Atomic Energy.

19 The one and only legal stipulation that is interpreted to endorse the "non-introduction" clause is the prior consultation agreement reached by the U.S. and Japan in 1960, under the exchange of notes between U.S. Secretary of State and Japanese Premier. The provision for prior consultation stipulates:

Major changes in the deployment into Japan of United States armed forces, major changes in their equipment, and the use of facilities and areas in Japan as bases for military combat operations to be undertaken from Japan other than those conducted under Article V of the said Treaty, shall be the subjects of prior consultation with the Government of Japan.

However, the implementation arrangement for prior consultation was handled loosely so that no written understanding exists to define the detailed requirements for prior consultation. The Japanese government offered details which the U.S. only tacitly accepted. In the deployment of forces, a major change requiring prior consultation is the movement of one army division, one naval task force, or one air force division of seventy-five fighter-bombers. In equipment, major changes mean the introduction of nuclear weapons, intermediate and long-range missiles or the construction of missile sites or launchers.

20 There is a third notable case, a statement by retired Rear Admiral Gene La Rocque in September 1974, in testimony before the Joint Committee on Atomic Energy of the U.S. Congress. La Rocque, however, is under the indictment for his words and writing, and therefore it is better to withhold his statement here.

21 The Mainichi Shimbun, October 28, 1974 or The Asahi Shimbun, October 28, 1974. The English with the double quotation marks is cited in David C. Morrison, "Japanese principles, U.S. policies," in Bulletin of the Atomic Scientists, vol. 41, no. 6, June/July 1985, pp. 23-24. The Times report, however, was denied by Douglas MacArthur II and Aiichiro Fujiyama, respectively the U.S. Ambassador to Japan and Japanese Foreign Minister at that time. See The Mainichi Shimbun, October 28, 1974. Richard Halloran, who wrote this article, reported a similar story in the

April 25, 1971 issue of The New York Times.

22 For the English within the double quotation mark, as quoted in Morrison, "Japanese principles, U.S. policies," p. 24.

23 The Mainichi Shimbun, May 18, 1981, The Asahi Shimbun, Evening Edition, May 18, 1981 and The New York Times, May 19, 1981.

24 The most explicit statement that endorses this speculation is Reischauer's. He stated that "Right from the start I had been informed that the meaning of 'introduction' meant putting nuclear weapons ashore or storing them." The New York Times, May 19, 1981.

25 See, for example, The Mainichi Shimbun, October 28, 1974 and May 18, 1981. Also see testimony by Foreign Minister Shintaro Abe of the Nakasone Cabinet before the House of Representatives on January 30, 1986 in Japan, Defense Agency, Dai 103, 104, 105 Kokkai Gijiroku [The 103rd, 104th, and 105th Diet Record] (Tokyo: Defense Agency, 1987), p. 512.

26 The initiative of prior consultation has been assumed to be an American prerogative. The Japanese government changed its position on whether Japan had a right to invoke prior consultation. In 1964, then Foreign Minister Masayoshi Ohira declared that Japan could propose prior consultation. However, since 1968 when the government said that it was reasonable to assume that the U.S. should first propose consultation, successive Japanese governments have taken the position that Japan does not have the right to invoke prior consultation. As a recent illustration, former Japanese Foreign Minister Shintaro Abe of the Nakasone Cabinet, in June 1984, declared in the Diet that Japan did not have the right to invoke prior consultation. See Japan, Defense Agency, Dai 101 Kokkai Gijiroku [The 101st Diet Record] (Tokyo: Defense Agency, 1985), p. 492.

27 Morrison, "Japanese principles, U.S. policies," p. 22.

28 In an Asahi Shimbun public opinion survey conducted from June 19 to 20 in 1985, seventy-three percent of the respondents stated that they did not think the non-introduction clause had been observed. Similarly, 78.9 percent of the respondents in a Nippon Yoron Chosa Kai [Japan Public Opinion Survey Association] poll of June 29 to 30 in 1985 did not believe that the non-introduction principle had been observed. Refer to Japan, Defense Agency, Boei Antenna [Defense Antenna], no. 325, August 1986, pp. 19-20.

29 Reischauer disclosed that during his ambassadorship to Japan, he raised an objection to the then Foreign Minister Masayoshi Ohira not to state in the Diet that the non-introduction clause prohibited nuclear-capable warships and aircraft from visiting Japanese ports on the ground that the Japanese statement was not consistent with the understanding of the U.S. government. The Mainichi Shimbun, May 8, 1981.

30 For example, one defense specialist notes that the total number of port calls by U.S. nuclear-powered submarines from 1968 to 1986 amounted to 285. See Hisao Maeda, "Waku-hazushi, Seiyaku-hazushi no Go-nen" [Lifting the Restrictions in the Last Five Years], in Sekai [The World], no. 500, April 1987, pp. 70-72. In addition to these, U.S. aircraft carriers and major warships have made occasional visits.

31 According to William M. Arkin and Richard W. Fieldhouse, 28 places in Japan have some kind of nuclear infrastructure. William M. Arkin and Richard W. Fieldhouse, Nuclear Battlefields: Global Links in the Arms Race (Cambridge, MA: Ballinger Publishing Company, 1985), pp. 224-226. Also see Morrison, "Japanese principles, U.S. policies," p. 24.

32 Ibid.

33 Japan, Defense Agency, Dai 101 Kokkai Gijiroku [The 101st Diet Record], pp. 519-520 and p. 524 and Japan, Defense Agency, Dai 103, 104, and 105 Kokkai Gijiroku [The 103rd, 104th, and 105th Diet Record], pp. 537-538.

34 For instance, in an Asahi Shimbun public opinion poll conducted from June 19 to 20 in 1985, seventy-two percent of the respondents stated that Japan should reject any port calls or transit visits with bases in Japan by foreign nuclear-capable warships and aircraft. Refer to Japan, Defense Agency, Boei Antenna [Defense Antenna], no. 325, August 1986, p. 20.

35 Yahihiro Nakagawa, Gendai Kaku Senriyaku Ron [Contemporary Nuclear Strategy] (Tokyo: Hara Shobo, 1985), pp. 170-172. Ikutaro Shimizu, Nippon yo Kokka-tare: Kaku no Sentaku [Japan, Being a State: Nuclear Option] (Tokyo: Bungei Shunju, 1980), pp. 147-148. Hiroomi Kurisu also refers to this policy in his four policy options concerning Japan's nuclear security. See Kurisu, Kaku-senso no Ronri [Logic of Nuclear War], pp. 283-286.

36 Author's translation. For the original text, see Nakagawa, Gendai Kaku Senriyaku Ron [Contemporary Nuclear Strategy], p. 164 and p. 169.

37 For a long time in the United States, nuclear forces had been grouped into 1) strategic and tactical nuclear weapons, 2) strategic, theater, and tactical nuclear weapons, or 3) strategic and theater nuclear weapons. The Reagan Administration, however, probably to avoid the ambiguity of the aforementioned categorization, has grouped U.S. nuclear forces into strategic and non-strategic nuclear forces (NSNFs). This categorization first appeared in the Reagan Administration's first Annual Defense Department Report. See U.S. Secretary of Defense Caspar W. Weinberger, Annual Defense Department Report for FY 1983 (Washington, D.C.: USGPO, 1982), pp. III-57-III-75. NSNFs were further grouped into INFs and SNFs to support U.S.-Soviet arms control negotiations on theater nuclear forces, which was begun in Geneva on November 30, 1981. The INFs include 1) longer-range INF missiles

(between 1,800 km and 5,500 km), 2) shorter-range INF missiles (1,800 km down to SNFs), and 3) nuclear capable aircraft (aircraft with less than an intercontinental capability). The SNFs consist of missiles, rockets, and artillery capable of striking only those targets in the general region of the battlefield. For details, refer to U.S. Joint Chiefs of Staff, United States Military Posture for FY 1983 (Washington, D.C.: USGPO, 1982), p. 26.

38 U.S. Joint Chiefs of Staff, United States Military Posture for FY 1987 (Washington, D.C.: USGPO, 1986), p. 30. The NATO countries that have deployed U.S. NSNFs in peacetime are Belgium, Greece, Italy, the Netherlands, Turkey, West Germany, and the United Kingdom (Greece declared that it would force withdrawal of U.S. NSNFs by 1989). For an estimated national distribution of U.S. NSNFs among NATO countries before the deployments of Pershing IIs and GLCMs, see Paul Bracken, The Command and Control of Nuclear Forces (New Haven Yale University Press, 1983), p. 139. On the other hand, the NATO nations that have not accepted U.S. NSNFs in peacetime are Canada, Denmark, (France), Iceland, Luxemburg, Norway, Portugal, and Spain. Refer to William M. Arkin and Richard W. Fieldhouse, "Focus on the nuclear infrastructure," in Bulletin of the Atomic Scientists, vol. 41, no. 6, June/July 1985, p. 13.

39 The only country in Northeast Asia that has accepted deployment of U.S. NSNFs in peacetime is the Republic of Korea. In the Persian Gulf region, the U.S. has no land-based nuclear weapons. The Staff of the Carnegie Panel on U.S. Security and the Future of Arms Control, Challenges for U.S. National Security, A Third Report, (New York: The Carnegie Endowment for International Peace, 1983), p. 178 and p. 183.

40 Ibid., pp. 137-139. Also U.S. Secretary of Defense Caspar W. Weinberger, Annual Defense Department Report for FY 1984 (Washington, D.C.: USGPO, 1983), pp. 56-57.

41 U.S. Joint Chiefs of Staff, United States Military Posture for FY 1987, p. 30 and U.S. Joint Chiefs of Staff, United States Military Posture for FY 1986 (Washington, D.C.: USGPO, 1987), p. 34.

42 As quoted in U.S. Joint Chiefs of Staff, United States Military Posture for FY 1983, p. 27.

43 Helmut Schmidt, "The Alastair Buchan Memorial Lecture," Survival, vol. XX, no. 1, January/February 1978, pp. 3-4.

44 The Staff of the Carnegie Panel, Challenges for U.S. National Security, A Third Report, p. 144.

45 The U.S. at that time did not deploy land-based long-range theater nuclear forces in Europe that could reach Soviet territory. Although the U.S. had once deployed this category of weapons in Europe in the late 1950s and the 1960s, the Thor intermediate-range ballistic missiles (IREMs) in the United Kingdom, the Jupiter IREMs in Italy and Turkey, and the Mace and Matador cruise missiles in West Germany, these

had all been withdrawn by the late 1960s, largely because of their vulnerability. See Bracken, The Command and Control of Nuclear Forces, p. 154.

46 It is reported that 400 U.S. Poseidon SLBM warheads are administratively assigned to the Supreme Allied Commander in Europe and would come under his operational control in a state of war. The International Institute for Strategic Studies, The Military Balance 1986-1987, p. 208. For a U.S. government publication that referred to a possible theater use of the Poseidon SLBMs in Europe, see U.S. Secretary of Defense Caspar W. Weinberger, Annual Defense Department Report for FY 1983, p. III-71.

47 This line of thinking is introduced by the Staff of the Carnegie Panel on U.S. Security and the Future of Arms Control, although they at the same time criticize it. See The Staff of the Carnegie Panel, Challenges for U.S. National Security, A Third Report, p. 148. Also many others raise questions on this way of thinking. For instance, see Leon V. Sigal, Nuclear Forces in Europe: Enduring Dilemmas, Present Prospects (Washington, D.C.: The Brookings Institution, 1984), pp. 37-38 and Kevin N. Lewis, "Intermediate-Range Nuclear Weapons," in Arms Control and the Arms Race: Readings from Scientific American, introd. Bruce M. Russett and Fred Chernoff (New York: W.H. Freeman & Company, 1985), p. 180.

48 Strobe Talbott, Endgame: The Inside Story of SALT II (New York: Harper & Row, 1980), p. 141. The U.S. agreed not to deploy cruise missiles capable of a range in excess of 600 km on sea- and land-based launchers in Article II of the Protocol to the Salt-II. The Protocol remained in force until the end of 1981.

49 Ibid.

50 The breakdown of the deployments is as follows: 108 Pershing II launchers (with 108 missiles) and 24 GLCM launchers (with 4 missiles each) in West Germany, 40 GLCM launchers in the United Kingdom, 28 GLCM launchers in Italy, and 12 GLCM launchers each in Belgium and the Netherlands. The International Institute for Strategic Studies, Strategic Survey 1979, p. 101.

51 By December 12, 1987, when the U.S.-Soviet INF Treaty was concluded in Washington, the total INF warheads deployed in Western Europe numbered 364. The New York Times, December 11, 1987.

52 Leon V. Sigal notes that the choices of Pershing II and GLCM and the decision on the number to be deployed were matters of symbol and politics rather than military arithmetic. For the details, see Sigal, Nuclear Forces in Europe, pp. 51-52. For reference, the guidelines for the choices and the particular number of these missiles, which were prepared by the High-Level Group of NATO, are as follows: 1) INF modernization should not entail any increase in the role of nuclear weapons in allied defense or any change in the strategy of flexible response; 2) There should be no change in the overall total of nuclear

weapons in Western Europe; 3) There was no need for a direct matching capability to the SS-20; instead, the alliance should create an offsetting capability that provided a 'credible response;' 4) The weapon systems themselves should have as much visibility as possible, to enhance the force's deterrent value (thus a preference for land-based systems); 5) The weapon systems should strive for survivability (e.g., mobility), penetrability and accuracy; and 6) There should be a mix of systems, for a 'synergistic' effect (e.g., to complicate Soviet defense planning and increase NATO targeting options). Quoted in Jeffrey D. Boutwell, "NATO Theater Nuclear Forces: The Third Phase, 1975-85," in The Nuclear Confrontation in Europe, ed. Jeffrey D. Boutwell, Paul Doty, and Gregory F. Treverton (Dover, MA: Auburn House Publishing Company, 1985), p. 73.

53 For example, Steven Canby and Ingemar Dorfer, "More Troops, Fewer Missiles," Foreign Policy, no. 53, Winter 1983-84, p. 8.

54 President Reagan's careless comment on the possibility of a limited nuclear war in October 1981 caused serious repercussions in Europe. He told newspaper editors, in Washington, that "... I could see where you could have the exchange of tactical weapons against troops in the field without it bringing either one of the major powers to pushing the button." Five days later, he withdrew his remarks. The New York Times, October 21 and 22, 1981. For an analysis of the magnitude of popular anti-nuclear protest and political disputes over nuclear issues in Western Europe, see The International Institute for Strategic Studies, Strategic Survey 1982-1983, pp. 48-50.

55 As quoted in Sigal, Nuclear Forces in Europe, p. 40, note 14.

56 As quoted in Bruce M. Russett, "Stabilizing Extended Deterrence," TS., New Haven, Yale University, fol. 23-24. Also see Bruce M. Russett, The Prisoners of Insecurity: Nuclear Deterrence, the Arms Race, and Arms Control, (New York: W.H. Freeman & Company, 1983), pp. 159-160 and Bracken, The Command and Control of Nuclear Forces, pp. 129-178.

57 Bracken, The Command and Control of Nuclear Forces, pp. 167-174.

58 Doubts about the survivability of Pershing IIs and GLCMs have been raised because of their deployment mode. During peacetime, they are stored at a limited number of bases, theoretically making them vulnerable to a Soviet preemptive strike or even sabotage. In the case of GLCMs, although 464 GLCMs are planned to be deployed, they are, in time of crisis and after dispersion, to be grouped into "flights" of four launchers (Transporter-Erector Launchers: TELs), with each TEL containing four GLCMs. Thus this operating procedure may in fact offer only 29 aim points to the Soviets. The Staff of the Carnegie Panel, Challenges for U.S. National Security, A Third Report, p. 151.

59 Pershing II's accuracy (CEP: 40 m) and short flight time (5 to 7 minutes) poses a worrisome new time-urgent counterforce threat to C<sup>3</sup>I

installations as well as to some missile sites in the western military districts of the Soviet Union. One analyst argues that 108 Pershing IIs can disarm as much as 10 percent of the total Soviet strategic forces. See William M. Arkin, "Pershing II and U.S. nuclear strategy," in Bulletin of the Atomic Scientists, vol. 39, no. 6, June/July 1983, pp. 12-13.

60 Quoted in John Erickson, "The Soviet View of Deterrence: A General Survey," in Survival, vol. XXIV, no. 6, November/December 1982, p. 244. For other publications that discuss Soviet nuclear doctrine of emphasizing the importance of initiating hostilities with a massive attack, see among others The Harvard Nuclear Study Group: Albert Carnesale, Paul Doty, Stanley Hoffmann, Samuel P. Huntington, Joseph S. Nye, Jr., and Scott D. Sagan, Living With Nuclear Weapons (New York: Bantam Books, 1983), pp. 136-137, William G. Hyland, "The USSR and Nuclear War," in Rethinking the U.S. Strategic Posture: A Report from the Aspen Consortium on Arms Control and Security Issues, ed. Barry M. Blechman (Cambridge, MA: Ballinger Publishing Company, 1982), p. 59, and Robert P. Berman and John C. Baker, Soviet Strategic Forces: Requirements and Responses (Washington, D.C.: The Brookings Institution, 1982), pp. 35-36.

61 The term "intermediate-range missile" means a ground-launched ballistic missile (GLBM) or a GLCM having a range capability in excess of 1,000 km but not in excess of 5,500 km. The term "shorter-range missile" means a GLBM or a GLCM having a range capability equal to or in excess of 500 km but not in excess of 1,000 km. See Article II of the U.S.-Soviet INF Treaty in Arms Control Today, vol. 18, no. 1, January/February 1988, p. INF Supplement 2.

62 Prominent critics include Richard M. Nixon, Henry Kissinger, and the former SACEUR, Bernard Rogers. See Robert W. Tucker, "The INF Debate: The Nos Have It," in The National Interest, no. 10, Winter 1987/88, p. 116.

63 As quoted in Helga Haftendorn, "Europe after Double-Zero," TS., Cambridge, the Center for International Affairs, Harvard University, March 1988, fol. 2.

64 Arkin and Fieldhouse, Nuclear Battlefields, pp. 120-121. Another source estimates the total number to be about 600-700 warheads. The Far Eastern Economic Review, September 24, 1987, p. 38.

65 The Staff of the Carnegie Panel, Challenges for U.S. National Security, A Third Report, p. 178 and The Far Eastern Economic Review, September 24, 1987, p. 38.

66 Arkin and Fieldhouse, Nuclear Battlefields, p. 121.

67 After confirming the presence of U.S. nuclear weapons in the Republic of Korea, Schlesinger declared the possibility of first nuclear use in the Korean Peninsula at a press interview in Washington in June 1975. The Yomiuri Shimbun, Evening Edition, June 21, 1975 or

The Asahi Shimbun, Evening Edition, June 21, 1975.

68 For the strength of U.S. forces in South Korea, see for example Japan, Defense Agency, Boei Hakusho: Showa 61 [White Paper on Defense: 1986], p. 47. North Korean forces outnumber the South Korean military in manpower, tanks, armored personnel carriers, and combat aircraft. For details, refer to The International Institute for Strategic Studies, The Military Balance 1986-1987, pp. 159-161.

69 Richard H. Solomon and Masataka Kosaka, "Nuclear Dilemmas and Asian Security: Problems of Coalition Defense in the Nuclear Era," in The Soviet Far East Military Buildup: Nuclear Dilemmas and Asian Security, ed. Richard H. Solomon and Masataka Kosaka (Dover, MA: Auburn House Publishing Company, 1986), p. 6.

70 Ibid. Also see Harry Gelman, "The Soviet Far East Military Buildup: Motives and Prospects," in Ibid., pp. 40-55.

71 The U.S. and Japan have been deploying dual-capable F-16 fighter-bombers at Misawa in northern Honshu since April 1985, but the Japanese side assumes these fighter-bombers are not equipped with nuclear weapons. The Soviet Union, on the other hand, tends to treat the F-16s as nuclear-armed. For instance, Mikhail Gorbachev cited this F-16 deployment at the 1985 U.S.-Soviet summit in Geneva as a regional nuclear threat to the Soviet Union.

72 For this line of military balance assessment, see for instance, U.S. Secretary of Defense Caspar W. Weinberger, Annual Defense Department Report for FY 1988, p. 32 and pp. 34-35.

73 The prospect of the controllability of nuclear war, or a limited nuclear war, is hindered by many factors including: 1) the unavailability of highly accurate and low-yield weapons capable of limiting collateral damage to civilians, 2) inadequate and vulnerable C<sup>3</sup>I systems that do not ensure controlled weapons use, 3) uncertainties over whether an adversary maintains excellent information-gathering and processing capacities for differentiating whether limited nuclear use was occurring, and 4) uncertainty that the adversary really would limit its response to such limited nuclear use. See Russett, "Stabilizing Extended Deterrence," fol. 29.

74 The U.S. first deployed the modern SLCMs in 1983. See The International Institute for Strategic Studies, The Military Balance 1986-1987, p. 200. But the nuclear-capable SLCM was first deployed in the Western Pacific in June 1984. Refer to James P. Rubin, "U.S. and Soviet SLCM Programs," in Arms Control Today, vol. 16, no. 3, April 1986, p. 4 and Peter Hayes, Lyuba Zarsky, and Walden Bello, American Lake: Nuclear Peril in the Pacific (Middlesex: Penguin Books, 1987), p. 256.

75 According to Arkin and Fieldhouse, the U.S. has a plan for producing ultimately as many as 3,994 SLCMs, and out of which 758 will be for nuclear land-attack missions, 593 will be for conventional

antiship missions, and 2,643 will be for conventional land-attack missions. Arkin and Fieldhouse, Nuclear Battlefields, p. 125. Also see Rubin, "U.S. and Soviet SLCM Programs," p. 4.

76 The U.S. warships that now carry nuclear-capable SLCMs are attack submarines, some cruisers, some destroyers, and reactivated battleships. Refer to Secretary of the U.S. Navy John F. Lehman, Jr., Posture Statements by the Secretary of the Navy (Arlington: Navy Internal Relations Activity, 1987), p. 30. In wartime, the Reagan Administration has a plan to deploy five carrier battle groups, two battleship battle groups, and four underway replenishment groups to the Seventh Fleet, about two-thirds of which are transferred from the Third Fleet. See Ibid., p. 10. For an estimate of SLCM-capable, either nuclear or conventional, U.S. Pacific Fleet warships, see Hayes, Zarsky, and Bello, American Lake, p.437.

77 For a strong advocate of this merit, Stansfield Turner, "The Right Questions About Cruise Missiles," in Arms Control Today, vol. 16, no. 3, April 1986, p. 11. The cruise missile is a pilotless, self-guiding jet bomber and will take two to three hours to cover its maximum range—unsuitable for a time-urgent destruction mission although highly reliable and accurate.

78 Refer to Lehman, Posture Statement by the Secretary of the Navy, p. 30 and The International Institute for Strategic Studies, "Cruise Missiles: Slow But Deadly," Strategic Survey: 1984-1985, p. 21.

79 Desmond Ball, "Nuclear War at Sea," in International Security, vol. 10, no. 3, Winter 1985-86, pp. 11-15. Also, see Paul G. Johnson, "Tomahawk: The Implications of a Strategic/Tactical Mix," Proceedings, April 1982, pp. 26-33.

80 For the difficulties of communications with submarine forces, see, for example, The Harvard Nuclear Study Group, Living With Nuclear Weapons, p. 174 and Ball, "Nuclear War at Sea," p. 18.

81 Hayes, Zarsky, and Bello, American Lake, p. 256.

82 Statement of Commodore Roger F. Bacon, Director, Strategic and Theater Nuclear Warfare Division, office of the Chief of Naval Operations, before the Strategic and Theater Nuclear Forces Subcommittee, U.S. Senate Armed Services Committee, March 13, 1984. As quoted in Terumasa Nakanishi, "U.S. Nuclear Policy and Japan," in The Washington Quarterly, vol. 10, no. 1, Winter 1987, p. 87.

83 For the cruise missile's implications for arms control, see The International Institute for Strategic Studies, "Cruise Missiles: Slow But Deadly," pp. 22-23. For the difficulties pertaining to SLCMs in particular and arms control proposals for them, see James P. Rubin, "Sea-Launched Cruise Missiles: Facing Up to the Arms Control Challenges," in Arms Control Today, vol. 16, no. 3, April 1986, pp. 2-11.

84 The Harvard Nuclear Study Group, Living With Nuclear Weapons, p. 179.

85 The Reagan Administration once rejected putting SLCMs on arms control agenda on the ground that limitations on the system could not be verified and therefore should not be included.

86 The Soviet Union once argued for a complete ban on long-range SLCMs. However, because of the failure to secure significant and lasting constraints on the U.S. programs on modern SLCMs, Moscow seems to have decided to deploy its own long-range SLCMs. It is estimated that the Soviets will soon deploy (or have already deployed) modern SLCMs, the SS-NX-21, on any of five types of Soviet attack submarines. The SS-NX-21 maintains roughly comparable operational capabilities to its American counterparts. Furthermore, the U.S. government is reported to declare that the SS-NX-24, capable of flying at supersonic speeds, could be ready for deployment in the next couple of years. See Rubin, "U.S. and Soviet SLCM Programs," p. 4 and The International Institute for Strategic Studies, "Cruise Missiles: Slow But Deadly," pp. 19-20.

87 Shimizu, Nippon yo Kokka tare: Kaku no Sentaku [Japan, Being a State: Nuclear Option], p. 147. Shimizu, however, does not present detailed examinations concerning a strategic feasibility of Japan's nuclear forces and political consequences that might be produced in such a course. The other prominent scholar of this school is Tetsuya Kataoka, a professor of Saitama University. Nonetheless he sees little chance of acceptance for such a policy in the absence of some cataclysmic event capable of shocking the Japanese out of their current self-satisfied pacifism. See Tetsuya Kataoka, Waiting for a "Pearl Harbor": Japan Debates Defense (Stanford: Hoover Institution Press, 1980). Kurisu also lists Japan's independent nuclear forces among his four policy options. See Kurisu, Kaku-senso no Ronri [Logic of Nuclear War], pp. 284-285.

88 Nakagawa, Gendai Kaku Senriyaku Ron [Contemporary Nuclear Strategy], pp. 172-176 and p. 188.

89 This perception is held by many in the Japanese defense community, not limited to the people belonging to the second school. For instance, see Makoto Momoi, Ikinokori no Senriyaku [Strategy for Survival] (Tokyo: Orient Shobou, 1978), pp. 18-22 and Akira Saito, Kaku Senriyaku Game [Nuclear Strategy Game] (Tokyo: Kodan-Sha, 1984), p. 176 and pp. 181-183.

90 Kurisu, Kaku-senso no Ronri [Logic of Nuclear War], p. 307.

91 Although it might be blamed for drawing some partisan-oriented inferences, the U.S. Joint Chiefs of Staff has reported the past trends and the trends projected for the 1980s and beyond in hard-target and prompt hard-target kill potential of U.S. and Soviet strategic forces. For the latest estimate, see U.S. Joint Staff, United States Military Posture for FY 1988 (Washington, D.C.: USGPO, 1987); p. 34 and p. 37.

<sup>92</sup> For a U.S.-Soviet comparison of overall strategic defense capabilities, see Ibid., p. 45. For breakdown of defensive measures against ballistic missiles, see Ibid., p. 41.

<sup>93</sup> Author's translation. For the original text, see Nakagawa, Gendai Kaku Senriyaku Ron [Contemporary Nuclear Strategy], pp. 184-185.

<sup>94</sup> Ibid., p. 187.

<sup>95</sup> Ibid., p. 174.

<sup>96</sup> Article I of the NPT stipulates: "Each nuclear-weapon State Party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not in any way to assist, encourage, or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices." Article II: "Each non-nuclear-weapon State Party to the Treaty undertakes not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices." For the essence of the 1978 Nuclear Non-Proliferation Act of the United States, refer to International Arms Control: Issues and Agreements, ed. Coit D. Blacker and Gloria Duffy, 2nd edition, (Stanford: Stanford University Press, 1984), pp. 166-167.

<sup>97</sup> U.S. Secretary of State George P. Schultz, "Preventing the proliferation of Nuclear Weapons," Current Policy, no. 631, November 1, 1984, p. 4.

<sup>98</sup> John Prados, Joel S. Wit and Michael J. Zagurek, Jr., "The Strategic Nuclear Forces of Britain and France," Scientific American, vol. 255, no. 2, August 1986, p. 34 and p. 36.

<sup>99</sup> For example American shares in total Japanese imported food and other natural resources are considerable. In 1985, the U.S. supplies 32.7 percent of total Japanese imported food, 11.1 percent of ores and minerals, and 34.9 percent of other raw materials including lumber, rubber, leather, and animal oils. Japan, Ministry of International Trade and Industry, Tsusho Hakusho: Showa 61 [White Paper on International Trade: 1986] (Tokyo: Ministry of Finance Printing Bureau, 1986), vol. 2, p. 149, p. 179, and p. 191. Masamichi Inoki, a former president of Japan's National Defense Academy, also predicts the incompatibility between Japan's decision to go nuclear and the current U.S.-Japanese security relationship. See Masamichi Inoki, "From Utopian Pacifism to Utopian Militarism," in Japan's Defense Debate, ed. Foreign Press Center/Tokyo (Tokyo: Foreign Press Center/Tokyo, 1986), pp. 30-31.

100 U.S. Arms Control and Disarmament Agency, Arms Control and Disarmament Agreements (Washington, D.C.: USGPO, 1982), 1982 edition, p. 62.

101 The New York Times, September 27, 1987.

102 The U.S. supplies about 92 percent of total Japanese imported enriched uranium. Japan, Committee on Atomic Energy, Genshiriyoku Hakusho: Showa 60 [White Paper on Atomic Energy: 1985] (Tokyo: Ministry of Finance Printing Bureau, 1985), p. 346. Full-scope safeguards cover the facilities built both by international suppliers and by the non-NPT member country itself.

103 Japan, Ministry of International Trade and Industry, ed., 21 Seiki no Genshiriyoku o Kangaeru [Thinking about Atomic Energy in the 21st Century] (Tokyo: Tsu-sho Sangiyo Chosakai, 1986), p. 65.

104 The United States, in order to find a survivable MX basing mode, examined about thirty alternatives including the Carter Administration's "multiple protective shelters" and the Reagan Administration's "closely spaced basing." But it is reported that none of them satisfied both strategic and political needs. As a result, some of the planned fifty MXs are now stationed in existing but more hardened ICBM silos.

105 For more or less negative views on Japan's nuclear option, see Albert Wohlstetter, et al., Swords from Plowshares: The Military Potential of Civilian Nuclear Energy (Chicago: The University of Chicago Press, 1979), pp. 111-125; Kunio Muraoka, "Japanese Security and the United States," Adelphi Papers, no. 95, (London: The International Institute for Strategic Studies, 1973), pp. 23-28; Junnosuke Kishida, "Japan's Non-nuclear Policy," in Survival, vol. XV, no. 1, January/February 1973, pp. 15-20; and Kiichi Saeki, "Japan's Security in a Multipolar World," Adelphi Papers, no. 92, (London: The International Institute for Strategic Studies, 1972), pp. 23-25. For a more comprehensive view on Japan's nuclearization, see John E. Endicott, Japan's Nuclear Option: Political, Technical, and Strategic Factors (New York: Praeger Publishers, 1975).

106 Quoted in Christoph Bertram, "Strategic Defense and the Western Alliance," in DAEDALUS, vol. 114, no. 3, Summer 1985, p. 294.

107 By the end of the 1960s, the era of MAD had arrived. The Harvard Nuclear Study Group, Living With Nuclear Weapons, p. 89.

108 Thomas C. Schelling, Strategy of Conflict (Cambridge, MA: Harvard University Press, 1960), p. 207. Also see Paul Stockton, "Strategic Stability between the Super-powers," Adelphi Papers, no. 213, (London: The International Institute for Strategic Studies, 1986), pp. 9-10.

109 For other elements, both international and domestic, that cause arms race, see Russett, The Prisoners of Insecurity, pp. 69-96.

110 Michael D. Wallace, "Arms Races and Escalation: Some New Evidence," Journal of Conflict Resolution, vol. 23, no. 1, march 1979, pp. 3-16.

111 Ibid., pp. 14-15.

112 In the United States, a group that calls for this policy orientation is called the "nuclear-war-fighting" school. A leading advocate of this school is Colin S. Gray. See, among his articles, Colin S. Gray and Keith Payne, "Victory is Possible," in Foreign Policy, no. 39, Summer 1980, pp. 14-27. Since the late 1970s the nuclear-war-fighting school has vehemently challenged dominant U.S. thinking of nuclear strategy that places importance on nuclear stability and emphasizes the condition of MAD and has influenced considerably the Reagan Administration's nuclear policy. Critics of this school and the Reagan Administration's inclination toward war-fighting strategy are abundant. Refer, for instance, to Michael E. Howard, "On Fighting a Nuclear War," in International Security, vol. 5, no. 4, Spring 1981, pp. 3-17 and Robert Scheer, With Enough Shovels: Reagan, Bush and Nuclear War (New York: Random House, 1982).

113 See, for instance, Glenn Snyder, Deterrence and Defense: Toward a Theory of National Security (Westport, CT: Greenwood Press, 1975), Reprinted, p. 6 and Jerome H. Kahan, Security in the Nuclear Age: Developing U.S. Strategic Arms Policy (Washington, D.C.: The Brookings Institution, 1975), p. 247.

114 Japanese affiliates of the Pugwash movement constitute the mainstream of this school.

115 Soichi Iijima, Toshiyuki Toyoda, and Jiro Maki, et al., Kaku Haizetsu wa Kano Ka [Is Complete Elimination of Nuclear Weapons Possible?] (Tokyo: Iwanami, 1984), pp. 18-19.

116 Author's translation. For the original text, see Toshiyuki Toyoda, Shin Kaku Senriyaku Hihan [New Critique of Nuclear Strategy] (Tokyo: Iwanami, 1983), pp. 75-78.

117 Ibid., pp. 94-95. For reference, Article IV stipulates: "If at any time relations between the Parties or between either Party and other countries appear to involve the risk of a nuclear conflict, or if relations between countries not party to this Agreement appear to involve the risk of nuclear war between the United States of America and the Union of Soviet Socialist Republic or between either Party and other countries, the United States and the Soviet Union, acting in accordance with the provisions of this Agreement, shall immediately enter into urgent consultations with each other and make every effort to avert this risk." U.S. Arms Control and Disarmament Agency, Arms Control and Disarmament Agreements, 1982 edition, p. 160.

118 Toyoda, Shin Kaku Senriyaku Hihan [New Critique of Nuclear Strategy], p. 160.

119 Iijima, Toyoda, and Maki, et al., Kaku Haizetsu wa Kano Ka [Is Complete Elimination of Nuclear Weapons Possible?], p. 33 and p. 41.

120 Professor Bruce M. Russett of Yale University has advocated "countercombatant" deterrent strategy that aims to satisfy both moral standards and necessary requirements for effective deterrence. For details, see Russett, "Stabilizing Extended Deterrence," fol. 30-35 and Russett, The Prisoners of Insecurity, pp. 148-153.

121 The Harvard Nuclear Study Group, Living With Nuclear Weapons, p. 5.

122 Article VI reads: "Nothing in this Agreement shall affect or impair: (a) the inherent right of individual or collective self-defense as envisaged by Article 51 of the Charter of the United Nations, (b) the provisions of the Charter of the United Nations, including those relating to the maintenance or restoration of international peace and security, and (c) the obligations undertaken by either party towards its allies or other countries in treaties, agreements, and other appropriate documents." U.S. Arms Control and Disarmament Agency, Arms Control and Disarmament Agreements, 1982 edition, p. 160.

123 For an exemplary U.S. government document that reveals this change, see The President's Strategic Defense Initiative issued in January 1985. This pamphlet, although it addresses the President's ultimate goal of escaping from reliance on deterrence based on the threat of retaliation, lays more stress on the interim or alternative goal of enhancing retaliatory deterrence.

124 The Reagan Administration declares that the defense shield planned by SDI need not be leak-proof. Ibid., p. 2.

125 James R. Schlesinger, "Rhetoric and Realities in the Star Wars Debate," in International Security, vol. 10, no. 1, Summer 1985, p. 6 and Sidney D. Drell, Philip J. Farley, and David Holloway, "Preserving the ABM Treaty: A Critique of the Reagan Strategic Defense Initiative," in International Security, vol. 9, no. 2, Fall 1984, p. 79.

126 The President's Strategic Defense Initiative, p. 3.

127 President Reagan has repeatedly declared that SDI is aimed at finding a way of protecting people, not missiles. For example, see U.S. President Ronald Reagan, "SDI: Progress and Promise," U.S. Department of State, Bureau of Public Affairs, Current Policy, no. 858, (Washington, D.C.: USGPO, August 1986), p. 2.

128 Although hypothetical, it is estimated that the cost ratio between defense and offense is now on the order of three to one, and that it is very difficult to overcome this adverse cost ratio. See Schlesinger, "Rhetoric and Realities in the Star Wars Debate," p. 8.

129 Paul H. Nitze, President Reagan's special adviser on arms

control, has set down these two criteria that any defense system must meet before being deployed. Paul H. Nitze, "On the Road to a More Stable Peace," in Strategic Defense Initiative: Folly or Future?, ed. P. Edward Haley and Jack Merritt (Boulder: Westview Press, 1986), p. 38.

130 For the sample of Soviet threats and countermeasures that could degrade the effectiveness or affect the survivability of space-based defense systems, see Douglas Waller, James Bruce, and Douglas Cook, SDI: Progress and Challenges, Staff Report Submitted to Senators William Proxmire, J. Bennett Johnston, and Lawton Chiles, March 17, 1986, p. 37.

131 George Rathjens and Jack Runia, "EMD and Strategic Instability," in DAEDALUS, vol. 114, no. 3, Summer 1985, p. 243.

132 Quoted in Gerard C. Smith, "Star Wars is Still the Problem," in Arms Control Today, vol. 16, no. 2, March 1986, p. 3.

133 For the opposite view, refer to Colin S. Gray, "A Case for Strategic Defense," in Survival, vol. XXVII, no. 2, March/April 1985, p. 51 and Keith B. Payne and Colin S. Gray, "Nuclear Policy and the Defensive Transition," in Foreign Affairs, vol. 62, no. 4, Spring 1984, p. 840.

134 Waller, Bruce, and Cook, SDI: Progress and Challenges, p. 38 and p. 40.

135 Douglas Waller, James Bruce, and Douglas Cook, "Star Wars: Breakthrough or Breakdown?", in Arms Control Today, vol. 16, no. 4, May/June 1986, pp. 9-10; Cosmo Dimaggio, "The Strategic Defense Initiative: U.S. Criteria and Policy Considerations," CRS Review, May 1986, pp. 14-15; Stockton, "Strategic Stability between the Super-powers," pp. 50-51; The Aspen Strategy Group, The Strategic Defense Initiative and American Security (Ilanham: The Aspen Strategy Group and University Press of America, 1987), p. xi and pp. 22-23.

136 Ibid.

137 For an identical view, see Richard K. Betts, "Conventional Deterrence: Predictive Uncertainty and Policy Confidence," in World Politics, vol. XXXVII, no. 2, January 1985, p. 177. However, Paul H. Nitze, an advocate of SDI, maintains that deterrence by denial can function as effectively as deterrence by punishment. He says: "... SDI is not designed to produce a regime that would replace deterrence but rather to shift its means. Deterrence requires that a potential opponent be convinced that the problems, risks, and costs of aggression far outweigh the gains he might hope to achieve.... [Thus] deterrence can also function effectively if one has the ability to deny the attacker the gains he might otherwise hope to realize." Paul H. Nitze, "SDI: Its Nature and Rationale," U.S. Department of State, Bureau of Public Affairs, Current Policy, no. 751 (Washington, D.C.: USGPO, October 1985), p. 3.

138 Barry M. Blechman and Stephan S. Kaplan, et al., Force Without War: Armed Forces as a Political Instrument (Washington, D.C.: The Brookings Institution, 1978), pp. 47-49.

139 Ibid.

140 The Harvard Nuclear Study Group, Living With Nuclear Weapons, pp. 150-151.

141 The Strategic Defense Initiative Organization within the U.S. Department of Defense estimates that SDI research program will cost about \$26 billion between fiscal years 1985 and 1989. According to the Organization, this amount represents less than two percent of the defense budget, and less than fifteen percent of the total defense research budget for this period, and is less than is proposed for strategic offensive R & D. (James Abrahamson, SDI Has Already Made Substantial Progress, Testimony by Lieutenant General James Abrahamson, Director, Strategic Defense Initiative Research Program before the Senate Subcommittee on Strategic and Theater Nuclear Forces, February 21, 1985, p. 12, document provided by the American Center, Tokyo, U.S. Information Service.) If, however, the SDI research activities were extended for another five years, John Pike of the Federation of American Scientists estimates that the 10-year SDI research bill alone could reach \$90 billion by 1994, a figure which exceeds the research and production costs of the MX and the B-1 bomber. (See Hartung, "Star Wars pork barrel," p. 20.) As to additional costs of the production, deployment, operations, and maintenance of SDI defense shield, the SDI office has been unwilling to try to estimate. Nevertheless, former Secretary of Defense James R. Schlesinger has argued, based on his knowledge of earlier efforts to develop ABM in the 1960s, that costs of producing and deploying the multi-layered defense could cost as much as \$1 trillion. Quoted in Hartung, "Star Wars pork barrel," p. 20.

142 The Aspen Strategy Group, The Strategic Defense Initiative and American Security, p. 32. For a more comprehensive analysis of the SDI's implication for the security of Western Europe, see Bertram, "Strategic Defense Initiative and the Western Alliance," pp. 279-296.

143 The Soviet Union is reported to have invested as much resources in its strategic defense as in its offensive forces. Nitze, "SDI: Its Nature and Rationale," p. 1.

144 However, there is an opinion that in the foreseeable future the Soviet Union is unlikely to abrogate the ABM Treaty for the purpose of deploying general BMD defense. This is because, despite the strong and continuing efforts on R & D in the Soviet Union, the Soviet leaders seem to see no prospect of improving their relative military position by launching a competition against the U.S. in BMD deployments. See, for instance, Raymond L. Garthoff, "BMD and East-West Relations," in Ballistic Missile Defense, ed. Ashton B. Carter and David N. Schwartz (Washington, D.C.: The Brookings Institution, 1984), pp. 278-279.

Nevertheless, in view of steady Soviet efforts in defensive measures, it might be necessary to prepare for unexpected major Soviet technological breakthroughs and substantial change in Soviet minds. For Soviet R & D efforts in BMD technologies, see Sayre Stevens, "The Soviet BMD Program," in Ibid., pp. 182-220. For a more concise analysis, Drell, Farley, and Holloway, "Preserving the ABM Treaty: A Critique of the Reagan Strategic Defense Initiative," pp. 63-67. As for Soviet R & D in exotic BMD technologies, refer to U.S. Department of Defense, Soviet Military Power 1986 (Washington, D.C.: USGPO, 1986), pp. 45-48.

145 The President's Strategic Defense Initiative, p. i and Caspar W. Weinberger, "U.S. Defense Strategy," in Foreign Affairs, vol. 64, no. 4, Spring 1986, pp. 682-683.

146 The Aspen Strategy Group, The Strategic Defense Initiative and American Security, p. 51 and Waller, Bruce, and Cook, "Star Wars: Breakthrough or Breakdown?", p. 12.

147 For an example of calculations about the theoretical effectiveness of a layered defense of ICBMs, see Ashton B. Carter, "BMD Applications: Performance and Limitations," in Ballistic Missile Defense, ed. Carter and Schwartz, pp. 128-137. But if the Soviet Union deployed the comparable BMD in defense of its ICBMs, the story would be different. The stabilizing benefit would depend largely on perceptions of the capabilities of the BMDs and ICBM forces. For the details, see Ibid., pp. 177-178. An alternative for keeping U.S. ICBMs survivable is to deploy small mobile ICBMs. The mobile "Midgetman" concept currently under consideration in the United States, if limited to a single-warhead version, would have the stabilizing quality of being a low-value target as well as being hard to target. Some defense analysts prefer this option to the ICBM defense because the small and mobile single-warhead ICBM plan does not necessitate the U.S. to amend or abandon the ABM Treaty. For instance, see Deborah Nutter Miner and Alan H. Rutan, "What Role for Limited BMD?", in Survival, vol. XXIX, no. 2, March/April 1987, pp. 125-128.

148 It might be strategically desirable to defend the National Command Authority in Washington under the terms (100 interceptors) of the ABM Treaty. But a defense of Washington without a nationwide defense would not be politically feasible. See Harold Brown, "The Strategic Defense Initiative: Defensive Systems and Strategic Debate," in Survival, vol. XXVII, no. 2, March/April 1985, p. 61.

149 Gray, "A Case for Strategic Defense," pp. 50-51.

150 Malcolm W. Browne, "The Star Wars Spinoff," The New York Times Magazine, August 24, 1986, p. 24, p. 67, and p. 69.

151 For comprehensive actions and principles for avoiding nuclear war, see Albert Carnesale, Joseph S. Nye, Jr., and Graham T. Allison, "An Agenda for Action," in Hawks, Doves, and Owls: An Agenda for Avoiding Nuclear War, ed. Graham T. Allison, Albert Carnesale, and

Joseph S. Nye, Jr. (New York: W.W. Norton & Company, 1985), pp. 223-246.

152 Michael Howard, "The Causes of Wars," in The Causes of Wars, ed. Michael Howard (London: Temple Smith, 1983), p. 22.

153 Russett, "Stabilizing Extended Deterrence," fol. 14-15. Professor Russett defines the immediate military balance as consisting of force present in the immediate area of the conflict, typically the vicinity of the state being threatened. For the short-term military balance, it consists of all active-duty forces and readily mobilizable reserves. See Ibid., p. 14.

154 For the similarity and difference between a deterrent threat and compellent threat, see William H. Kincade, "Arms Control or Arms Coercion?," in Foreign Policy, no. 62, Spring 1986, pp. 24-45.

155 The U.S., the White House, National Security Strategy of the United States, January 1988, p. 17.

156 Huth and Russett, "What Makes Deterrence Work?," p. 502.

157 Ibid., p. 497.

158 Russett, "The Calculus of Deterrence," p. 214.

## SELECTED BIBLIOGRAPHY

### I. Japanese Materials

#### A. Government Publications

Japan. Committee on Atomic Energy. Genshiriyoku Hakusho: Showa 60 [White Paper on Atomic Energy: 1985]. Tokyo: Ministry of Finance Printing Bureau, 1985.

Japan. Defense Agency. Dai 101 Kokkai Gijiroku [The 101st Diet Record]. Tokyo: Defense Agency, 1985.

\_\_\_\_\_ Dai 103, 104, 105 Kokkai Gijiroku [The 103rd, 104th, and 105th Diet Record]. Tokyo: Defense Agency, 1987.

\_\_\_\_\_ Boei Hakusho: Showa 45 [White Paper on Defense: 1970]. Tokyo: Ministry of Finance Printing Bureau, 1970.

\_\_\_\_\_ Boei Hakusho: Showa 61 [White Paper on Defense: 1986]. Tokyo: Ministry of Finance Printing Bureau, 1986.

\_\_\_\_\_ Boei Antenna [Defense Antenna]. No. 325, (August 1986).

Japan. Ministry of International Trade and Industry. Tsu-sho Hakusho: Showa 61 [White Paper on International Trade: 1986]. Vol. 2. Tokyo: Ministry of Finance Printing Bureau, 1986.

Japan. Ministry of International Trade and Industry, ed. 21 Seiki no Genshiriyoku o Kangaeru [Thinking about Atomic Energy in the 21st Century]. Tokyo: Tsu-sho Sangiyo Chosakai, 1986.

#### B. Books, Articles and Others

Iijima, Soichi, et al. Kaku Haizetsu wa Kano Ka [Is Complete Elimination of Nuclear Weapons Possible?]. Tokyo: Iwanami, 1984.

Kurisu, Hiroomi. Kaku-senso no Ronri [Logic of Nuclear War]. Tokyo: Futami Shobo, n.d.

Maeda, Hisao. "Waku-hazushi, Seiyaku-hazushi no Go-nen" [Lifting the Restrictions in the Last Five Years]. Sekai. (April 1987).

Momoi, Makoto. Ikinokori no Senriyaku [Strategy for Survival]. Tokyo: Orient Shobo, 1978.

Nakagawa, Yahiro. Gendai Kaku Senriyaku Ron [Contemporary Nuclear Strategy]. Tokyo: Hara Shobo, 1985.

Saito, Akira. Kaku Senriyaku Game [Nuclear Strategy Game]. Tokyo: Kodansha, 1984.

Shimizu, Ikutaro. Nippon wo Kokka-tare: Kaku no Sentaku [Japan, Being a State: Nuclear Option]. Tokyo: Bungei Shunju, 1980.

Toyoda, Toshiyuki. Shin Kaku SenriYaku Hihan [New Critique of Nuclear Strategy]. Tokyo: Iwanami, 1983.

The Asahi Shimbun

The Mainichi Shimbun

The Yomiuri Shimbun

## II. English Materials

### A. Government Publications

U.S. White House. National Security Strategy of the United States. Washington, D.C.: n.p., January 1988.

\_\_\_\_\_. The President's Strategic Defense Initiative. Washington, D.C.: n.p., January 1985.

U.S. Department of Defense. Secretary of Defense Caspar W. Weinberger. Annual Report to the Congress. FY 1988. Washington, D.C.: USGPO, 1987.

\_\_\_\_\_. Annual Report to the Congress. FY 1987. Washington, D.C.: USGPO, 1986.

\_\_\_\_\_. Annual Report to the Congress, FY 1986. Washington, D.C.: USGPO, 1985.

\_\_\_\_\_. Annual Report to the Congress. FY 1985. Washington, D.C.: USGPO, 1984.

\_\_\_\_\_. Annual Report to the Congress. FY 1984. Washington, D.C.: USGPO, 1983.

\_\_\_\_\_. Annual Report to the Congress. FY 1983. Washington, D.C.: USGPO, 1982.

U.S. Department of Defense. Report to the Congress on the Strategic Defense Initiative. Washington, D.C.: U.S. Department of Defense, 1986.

\_\_\_\_\_  
Defense Against Ballistic Missiles: An Assessment of Technologies and Policy Implications. Washington, D.C.: USGPO, 1984.

U.S. Joint Chiefs of Staff. United States Military Posture for FY 1989. Washington, D.C.: USGPO, 1988.

\_\_\_\_\_  
United States Military Posture for FY 1988. Washington, D.C.: USGPO, 1987.

\_\_\_\_\_  
United States Military Posture for FY 1987. Washington, D.C.: USGPO, 1986.

\_\_\_\_\_  
United States Military Posture for FY 1986. Washington, D.C.: USGPO, 1985.

\_\_\_\_\_  
United States Military Posture for FY 1985. Washington, D.C.: USGPO, 1984.

\_\_\_\_\_  
United States Military Posture for FY 1984. Washington, D.C.: USGPO, 1983.

\_\_\_\_\_  
United States Military Posture for FY 1983. Washington, D.C.: USGPO, 1982.

Secretary of the U.S. Navy John F. Lehman, Jr. Posture Statement by the Secretary of the Navy. Arlington: Navy Internal Relations Activity, 1987.

U.S. Secretary of State George P. Shultz. "Preventing the Proliferation of Nuclear Weapons." Current Policy. No. 631 (November 1984).

Japan. Defense Agency. Defense of Japan: 1987. Trans. The Japan Times. Tokyo: The Japan Times, 1987.

\_\_\_\_\_  
Defense of Japan: 1986. Trans. The Japan Times. Tokyo: The Japan Times, 1986.

\_\_\_\_\_  
Defense of Japan: 1981. Trans. The Japan Times. Tokyo: The Japan Times, 1981.

\_\_\_\_\_  
Defense of Japan: 1977. Trans. The Mainichi Daily News. Tokyo: The Mainichi Daily News, 1977.

\_\_\_\_\_  
Defense of Japan: 1970. Trans. Not specified. Tokyo: 1970.

B. Books, Articles and Others

- Allison, Graham T., Albert Carnesale, and Joseph S. Nye, Jr., ed. Hawks, Doves, and Owls: An Agenda for Avoiding Nuclear War. New York: W. W. Norton & Company, 1985.
- Arkin, William M., and Richard W. Fieldhouse. Nuclear Battlefields: Global Links in the Arms Race. Cambridge, MA: Ballinger Publishing Company, 1985.
- Aspen Strategy Group. The Strategic Defense Initiative and American Security. Lanham: The Aspen Strategy Group and University Press of America, 1987.
- Berman, Robert P., and John C. Baker. Soviet Strategic Forces: Requirements and Responses. Washington, D.C.: The Brookings Institution, 1982.
- Boutwell, Jeffrey D., Paul Doty, and Gregory F. Treverton, ed. The Nuclear Confrontation in Europe. Dover: Auburn House publishing Company, 1985.
- Bracken, Paul. The Command and Control of Nuclear Forces. New Haven: Yale University Press, 1983.
- Canby, Steven, and Ingemar Dorfer. "More Troops, Fewer Missiles." Foreign Policy. No. 53 (Winter 1983-84).
- Carnesale, Albert, Paul Doty, Stanley Hoffmann, Samuel P. Huntington, Joseph S. Nye, Jr., and Scott D. Sagan. Living With Nuclear Weapons. New York: Bantam Books, 1983.
- Carter, Ashton B., and David N. Schwartz, ed. Ballistic Missile Defense. Washington, D.C.: The Brookings Institution, 1984.
- Endicott, John E. Japan's Nuclear Option: Political, Technical, and Strategic Factors. New York: Praeger Publishers, 1975.
- Erickson, John. "The Soviet. View of Deterrence: A General Survey." Survival. Vol. XXIV, no. 6 (November/December 1982).
- Gray, Colin S., and Keith Payne. "Victory is Possible." Foreign Policy. No. 39 (Summer 1980).
- Greene, Fred. Stresses in U.S.-Japanese Security Relations. Washington, D.C.: The Brookings Institution, 1975. Haley,
- Edward, and Jack Merritt, ed. Strategic Defense Initiative: Folly or Future?. Boulder: Westview Press, 1986. Howard,
- Michael E. "On Fighting a Nuclear War." International

Security. Vol. 5, no. 4 (Spring 1981).

Huth, Paul and Bruce Russett. "What Makes Deterrence Work?: Cases from 1900 to 1980." World Politics. Vol. XXXVI, no. 4 (July 1984).

International Institute for Strategic Studies. The Military Balance 1987-1988. London: International Institute for Strategic Studies, 1987.

\_\_\_\_\_. The Military Balance 1986-1987. London: International Institute for Strategic Studies, 1986.

\_\_\_\_\_. The Military Balance 1985-1986. London: International Institute for Strategic Studies, 1985.

\_\_\_\_\_. Strategic Survey 1979. London: International Institute for Strategic Studies, 1979.

\_\_\_\_\_. Strategic Survey 1984-1985. London: International Institute for Strategic Studies, 1985.

Kahan, Jerome H. Security in the Nuclear Age: Developing U.S. Strategic Arms Policy. Washington, D.C.: The Brookings Institution, 1975.

Kincade, William H., and Jeffrey D. Porro, ed. Negotiating Security: An Arms Control Reader. New York: Carnegie Endowment for International Peace, 1979.

Kubo, Takuya. "Meaning of the U.S. Nuclear Umbrella for Japan." In U.S.-Japan Relations and the Security of East Asia: The Next Decade. Franklin B. Weinsten, ed. Boulder: Westview Press, 1978.

Lewis, Kevin N. "Intermediate-Range Nuclear Weapons." In Arms Control and the Arms Race: Reading from Scientific American. Introd. Bruce M. Russett and Fred Chernoff. New York: W. H. Freeman & Company, 1985.

Morrison, David C. "Japanese principles, U.S. policies." Bulletin of the Atomic Scientists. Vol. 41, no. 6 (June/July 1985).

Nakanishi, Terumasa. "U.S. Nuclear Policy and Japan." The Washington Quarterly. Vol. 10, no. 1 (Winter 1987).

Nishihara, Masashi. "Expanding Japan's Credible Defense Role." International Security. Vol. 8, no. 3 (Winter 1983-84).

Russett, Bruce M. "The Calculus of Deterrence." In Power and Community in World Politics. New York: W. H. Freeman & Company, 1974.

- \_\_\_\_\_. The Prisoners of Insecurity: Nuclear deterrence, the Arms Race, and Arms Control. New York: W. H. Freeman & Company, 1983.
- \_\_\_\_\_. "Stabilizing Extended Deterrence." TS. Yale University, New Haven.
- Schelling, Thomas C. Strategy of Conflict. Cambridge: Harvard University Press, 1960.
- Sigal, Leon V. Nuclear Forces in Europe: Enduring Dilemmas, Present Prospects. Washington, D.C.: The Brookings Institution, 1984.
- Smoke, Richard. "National Security Affairs." In vol. 8 of Handbook of Political Science. Reading: Addison-Wesley Publishing Company, 1975.
- Solomon, Richard H., and Masataka Kodaka, ed. The Soviet Far East Military Buildup: Nuclear Dilemmas and Asian Security. Dover: Auburn House Publishing Company, 1986.
- Staff of the Carnegie Panel on U.S. Security and the Future of Arms Control. Challenges for U.S. National Security. A Third Report. New York: Carnegie Endowment for International Peace, 1981.
- Stockton, Paul. "Strategic Stability between the Super-powers." Adelphi Papers. No. 213. London: International Institute for Strategic Studies, 1986.
- Tucker, Robert W. "The INF Debate: The Nos Have It." The National Interest. No. 10 (Winter 1987/88).
- Weinberger, Caspar W. "U.S. Defense Strategy." Foreign Affairs. Vol. 64, no. 4 (Spring 1986).
- Wohlstetter, Albert, et al. Swords from Plowshares: The Military Potential of Civilian Nuclear Energy. Chicago: The University of Chicago Press, 1979.