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Information Warfare and Neutrality

George K. Walker

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Information Warfare and Neutrality

*George K. Walker**

ABSTRACT

This Article examines Information Warfare—that is, actions taken to affect adversary information and information systems conducted during a crisis or conflict to achieve or promote specific objectives against the adversary. The Article begins with an explanation of the development and structure

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of the Internet. It then cites examples of the use of information strategies in recent conflicts.

Next, the Article turns to a discussion of the principles of neutrality in the U.N. Charter era. Specifically, the Article examines neutrality in the context of land warfare, naval warfare, aerial warfare, and outer space. Next, the Author discusses application of principles from each of these neutrality contexts to Information Warfare, including additional analysis of the principles of self-defense, reprisals, and retorsions.

The Author continues by exploring the difficulties in analogizing principles of neutrality, customary law, as well as treaty law to the information warfare context. Finally, the Author describes additional considerations that must be addressed in determining guiding principles of international law in the information age.

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Information warfare (IW)¹ may become a new full-scale modality of conflict in this century as part of a revolutionary

1. Cyberwar, information warfare, info-warfare and IW are used interchangeably in this analysis. Information warfare is information operations (IO), *i.e.* actions taken to affect adversary information and information systems while defending one's own information and information systems, conducted during crisis or conflict to achieve or promote specific objectives over a specific adversary or adversaries. U.S. DEPT. OF DEFENSE, JOINT PUBLICATION 1-02: DICTIONARY OF MILITARY AND ASSOCIATED TERMS 422 (1998). *See also* WALTER GARY SHARP, SR., CYBERSPACE AND THE USE OF FORCE 23-24 (1999). Kenneth W. Dam and Herbert S. Lin define IW as follows:

[H]ostile action that targets the information systems and information infrastructure of an opponent (*i.e.*, offensive actions that attack an opponent's communications, weapons systems, command and control systems, intelligence systems, information components of the civil and societal infrastructure such as the power grid and banking system) coupled with simultaneous actions seeking to protect U.S. and allied systems and infrastructure from such attacks.

CRYPTOGRAPHY'S ROLE IN SECURING THE INFORMATION SOCIETY 49 (Kenneth W. Dam & Herbert S. Lin eds., 1996). Dam and Lin note that "looser uses" of the term include "information and tactical intelligence to apply weapon systems more effectively," "targeting . . . companies' information systems for IW attacks," and fighting "terrorism, organized crime, and even street crime . . ." Greenberg *et al.* note that the U.S. Air Force broadly defines IW as "any action to deny, exploit, corrupt, or destroy the enemy's information and its functions; protecting ourselves against those actions; and exploiting our own military information functions." LAWRENCE T. GREENBERG ET AL., INFORMATION WARFARE AND INTERNATIONAL LAW 1 (1997) (quoting U.S. DEP'T OF THE AIR FORCE, CORNERSTONES OF INFORMATION WARFARE 2 (1995)). The ensuing analysis concentrates on the U.S. Department of Defense (DOD), U.S. Air Force, Greenberg *et al.* and Dam and Lin core definitions

global shift from tangible to intangible methods of production and destruction.² Recent conflicts and other events illustrate the trend.

I. INTRODUCTION: CONFLICTS AND COMPUTER-BASED ATTACKS

During the 1999 Kosovo crisis and NATO bombing campaign, Yugoslav hackers reportedly inundated a NATO web site with viruses and thousands of e-mails daily, overloading the site.³ Serbian supporters clogged non-military Internet sites in the United States in what has been characterized as the "first cyberwar."⁴ Backers of Serbia also used e-mail to warn of NATO strikes and to send messages of support.⁵ After NATO mistakenly

in a context of neutrality during international armed conflict. *See generally* Richard W. Aldrich, *How Do You Know You Are at War in the Information Age?*, 22 Hous. J. INT'L L. 223, 225 (2000); *infra* notes 4, 36, 41, 123 and accompanying text.

2. Alvin Toffler & Heidi Toffler, *Foreword* to IN ATHENA'S CAMP: PREPARING FOR CONFLICT IN THE INFORMATION AGE xiii, xiv-xvi (John Arquilla & David Ronfeldt eds., 1997). *See also* ALVIN TOFFLER, POWERSHIFT (1990) [hereinafter TOFFLER, POWERSHIFT]; ALVIN TOFFLER, THE THIRD WAVE (1980) [hereinafter TOFFLER, THE THIRD WAVE] (exploring transitions from land-based agrarian economies, the "first wave," to industrial economies, the "second wave," to information-based economies, the "third wave," in more detail). The fact that some countries are in each wave today can result in asymmetrical conflict.

3. *NATO Site Being Targeted by Hackers*, WINSTON-SALEM J., Apr. 1, 1999, at A6. *See also infra* note 69 and accompanying text.

4. Ellen Joan Pollock & Andrea Petersen, *Serbs Take Offensive in the First Cyberwar, Bombing America*, WALL ST. J., Apr. 8, 1999, at A1. Some commentators claim that nongovernmental organization (NGO) use of the Internet to promote the Zapatista National Liberation Army (EZLN) was the first active Internet response to a distant upheaval and the first "netwar," *i.e.* cyberwar. David Ronfeldt & Armando Martinez, *A Comment on the Zapatista "Netwar,"* in IN ATHENA'S CAMP: PREPARING FOR CONFLICT IN THE INFORMATION AGE, *supra* note 2, at 369, 371. The short-lived EZLN uprising in Chiapas State, Mexico was a non-international conflict, beyond the scope of this article. *See generally* DAVID RONFELDT ET AL., THE ZAPATISTA SOCIAL NETWAR IN MEXICO (1998); *infra* notes 41, 80 and accompanying text. For an analysis of the potential impact of NGOs in cyberwar, see *infra* notes 80-83 and accompanying text. *See also* JOHN ARQUILLA & DAVID RONFELDT, THE ADVENT OF NETWAR 3-6, 45-46 (1996) (predicting that much of the world is ripe for netwar); RONFELDT ET AL., *supra*, at 8; John Arquilla et al., *Networks, Netwar, and Information-Age Terrorism*, in IAN O. LESSER ET AL., COUNTERING THE NEW TERRORISM 39, 46 (1999) [hereinafter Arquilla et al. in LESSER ET AL.] (defining netwar as small-scale contingencies, *i.e.* "low-intensity conflict (LIC) [or] operations other than war (OOTW), and nonmilitary modes of conflict and crime," as distinguished from cyberwar, which includes high-intensity and middle-range conflicts); John Arquilla et al., *Networks, Netwar, and Information-Age Terrorism*, in STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE 75 (Zalmay M. Khalilzad & John P. White eds., 1999) [hereinafter Arquilla et al. in STRATEGIC APPRAISAL].

5. *Serb Supporters Use E-mail as Pipeline for Warnings and Messages of Support*, WINSTON-SALEM J., Apr. 25, 1999, at A18.

bombed the Peoples' Republic of China (PRC) embassy in Belgrade, PRC-based sources brought down the U.S. White House web page and defaced the U.S. Embassy website in Beijing.⁶ The U.S. military has acknowledged that NATO's air war against Serbia included "limited" computer warfare.⁷ The United States mounted computer attacks on Yugoslav President Slobodon Milosevic's and other Serbian leaders' foreign bank accounts over the summer of 1999; "[i]n future wars, United States cyberwarriors will try to disable air defense systems, upset logistics and infect software . . . , according to a Pentagon official."⁸ Other countries or alliances, including rogue nations, may be tempted to resort to IW in the future.⁹

These Internet incursions and the responses to them had counterparts in more traditional methods of aiding Serbia. New NATO partner Hungary blocked a seventy-three-truck convoy, which included fuel tankers, armored trucks, and cargoes of food, medicine, and children's toys, from Belarus and Russia. The situation defused when Russia agreed to leave behind the armored trucks and truckloads of fuel.¹⁰ Television broadcasts from Republika Srpska, an ethnic Serb ministate within neighboring Bosnia-Herzegovina, had unbalanced content favoring Serbia, including Serb state television programs, beamed

6. David Stout, *China Protests Crash White House Web Site*, N.Y. TIMES, May 12, 1999, at A12. See also David C. Gompert, *National Security in the Information Age*, NAVAL WAR C. REV., Autumn 1998, at 22, 23, 34. This phenomenon has happened elsewhere. See, e.g., Stephen J. Glain, *Blind Arab Brothers, Allegedly Hackers, Disconcert Israel*, WALL ST. J., Oct. 21, 1999, at A1. The U.S. General Accounting Office estimated that the Department of Defense experienced 250,000 cyber-attacks in 1995 and that the number of these would increase in the future. COMM. TO REVIEW DOD C4I PLANS AND PROGRAMS, NATIONAL RESEARCH COUNCIL, REALIZING THE POTENTIAL OF C4I: FUNDAMENTAL CHALLENGES 131 n.2 (1999) [hereinafter COMM. TO REVIEW DOD C4I PLANS AND PROGRAMS]. See also GREENBERG ET AL., *supra* note 1, at 65-66 (stating that the 1994 attack on the U.S. Air Force system was probably from the United Kingdom); SHARP, *supra* note 1, at 20; Aldrich, *supra* note 1, at 229-31.

The private sector has also experienced a high volume of intrusions. Robert L. Dunne, *Deterring Unauthorized Access to Computers: Controlling Behavior in Cyberspace Through a Contract Law Paradigm*, 35 JURIMETRICS J. 1, 6 (1994). C4I refers to Command, Control, Computing, Communications and Intelligence. A related acronym, C4ISR, adds Surveillance and Reconnaissance. See *id.* at 29.

7. Elizabeth Becker, *Pentagon Sets Up New Center For Waging Cyberwarfare*, N.Y. TIMES, Oct. 8, 1999, at A16.

8. *Id.* For other C4I methods used in Bosnia-Herzegovina, see COMM. TO REVIEW DOD C4I PLANS AND PROGRAMS, *supra* note 6, at 35-36. See generally RICHARD HUNDLEY ET AL., SECURITY IN CYBERSPACE: CHALLENGES FOR SOCIETY 10-13 (1996) (noting that cyber-attacks on banks have occurred before).

9. Gompert, *supra* note 6, at 32.

10. Michael R. Gordon, *Convoy Sent from Russia Is Blocked by Hungary*, N.Y. TIMES, Apr. 12, 1999, at A8; *The Russian Trucks Arrive in Belgrade*, N.Y. TIMES, Apr. 14, 1999, at A14. See also *infra* notes 272, 292 and accompanying text.

to Bosnian broadcasters by satellite. British and U.S. officials threatened to close the station unless it changed its coverage.¹¹

Although the Kosovo campaign was the first known major use of IW, the 1990-91 Gulf War was a harbinger of the future; information played a major role and decisively affected the battle for Al-Khafji. Coalition forces detected the night movement of Iraqi divisions far behind enemy lines through Joint Surveillance and Target Attack Radar System (JSTARS) aircraft and "unmanned reconnaissance aircraft."¹² Hackers in the Netherlands reportedly offered to help Iraq by penetrating and attacking coalition information networks, but Iraq rejected the offer.¹³ Opponents' IW tactics could disrupt future coalition wars, however.¹⁴ The same could be true for one-on-one disputes, such as the PRC-Taiwan confrontation or the Indonesia-

11. Daniel Pearl, *Propaganda War: A Bosnian TV Station, Staffed by Serbs, Runs Afoul of U.S., NATO*, WALL ST. J., May 13, 1999, at A1. For analysis of the NATO campaign and the former Yugoslavia's suits against NATO members in the International Court of Justice, see J.D. Godwin, *NATO's Role in Peace Operations: Reexamining the Treaty After Bosnia and Kosovo*, 160 MILITARY L. REV. 1 (1999) and Aaron Schwabach, *Yugoslavia v. NATO, Security Council Resolution 1244, and the Law of Humanitarian Intervention*, 27 SYRACUSE J. INT'L L. & COM. 77 (2000).

12. Jeremy Shapiro, *Information and War: Is It a Revolution?*, in STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE, *supra* note 4, at 113. See also COMM. TO REVIEW DOD C4I PLANS AND PROGRAMS, *supra* note 6, at 35. Two authors see the war as a clash between two war-forms, the Second Wave and the Third Wave, or a collision between a predominantly industry-based "smokestack" economy state, Iraq, and an information-based U.S.-led coalition. ALVIN TOFFLER & HEIDI TOFFLER, *WAR AND ANTI-WAR: SURVIVAL AT THE DAWN OF THE 21ST CENTURY* 64-71 (1993). These ideas are more fully developed by Toffler elsewhere. See TOFFLER, *POWERSHIFT*, *supra* note 2; TOFFLER, *THE THIRD WAVE*, *supra* note 2 (describing the First Wave as an agriculture-based economy). Michael N. Schmitt states that this was not the first "smart" war. Michael N. Schmitt, *The Principle of Discrimination in 21st Century Warfare*, 2 YALE HUM. RTS. & DEV. L.J. 143, 164 (1999).

13. TRUST IN CYBERSPACE 18 (Fred B. Schneider ed., 1999); Aldrich, *supra* note 1, at 227. The story may, however, be apocryphal. Zalmay Khalilzad, *Defense in a Wired World: Protection, Deterrence, and Prevention*, in STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE, *supra* note 4, at 403, 408. In January 1999 Indonesia reportedly attacked non-government computers in Ireland and brought down the East Timor virtual country domain and Internet service to more than 3000 customers. SHARP, *supra* note 1, at 22.

14. HUNDLEY ET AL., *supra* note 8, at 16 ("[I]f Saddam Hussein were to make another effort to capture Kuwait, he would likely give more attention to splitting the coalition opposing him—possibly through IW attacks."); ROGER C. MOLANDER ET AL., *STRATEGIC INFORMATION WARFARE: A NEW FACE OF WAR* 28-30 (1996). Cf. Stephen T. Hosmer, *The Information Revolution and Psychological Effects*, in STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE, *supra* note 4, at 217, 238-42. Coalition operations also pose problems for coalition partners, such as the inability to fully predict partners' actions, partners' incompatible or inadequate resources, the unwillingness to share sensitive information with partners, and differences in operational doctrine or language. See COMM. TO REVIEW DOD C4I PLANS AND PROGRAMS, *supra* note 6, at 193-94.

East Timor independence issue.¹⁵ “Knowledge . . . is now the central resource of destructivity, just as it is the central resource of productivity.”¹⁶

Internet use (or abuse) on a worldwide scale not involving military action has occurred within the United States and other countries. In 1997, military security analysts uncovered and stopped computer hackers who had discovered a new way to attack open Pentagon networks on the Internet. The hackers tried to cover their tracks by initiating intrusions through an overseas site not related to where the hackers were.¹⁷ Another attack in 1998 could have compromised military air strike planning.¹⁸ In 1999 the Chernobyl and Melissa viruses wreaked havoc among unprotected computers worldwide.¹⁹ In early 2000, attacks on Internet service providers, such as Yahoo!, and other major websites, such as eBay, E*Trade, and CNN.com, shut down major parts of the Internet. In May 2000 the “I love you” virus attacked e-mail systems, causing millions in damage worldwide.²⁰

15. E.g., SHARP, *supra* note 1, at 22; Jon G. Auerbach & William M. Bulkeley, *Web in Modern Age Is Arena for Activism, Terrorism, Even War*, WALL ST. J., Feb. 10, 2000, at B1.

16. TOFFLER & TOFFLER, *supra* note 12, at 71.

17. Elizabeth Becker, *Computer Hackers Are Stopped; Pentagon Networks Were Victim*, N.Y. TIMES, Mar. 5, 1999, at A15. See also TRUST IN CYBERSPACE, *supra* note 13, at 17-18; John Simons, *How a Cyber Sleuth, Using a “Data Tap,” Busted a Hacker Ring*, WALL ST. J., Oct. 1, 1999, at A1 (describing a similar group, the “Phonemasters”). Ten years before, hackers were discovered in the Federal Republic of Germany selling secrets to the KGB. SYSTEM SEC. STUDY COMM., NATIONAL RESEARCH COUNCIL, *COMPUTERS AT RISK: SAFE COMPUTING IN THE INFORMATION AGE 9* (1991); TOFFLER, *POWERSHIFT*, *supra* note 2, at 160; Billy Barron, *Crackers and Viruses*, in *THE INTERNET UNLEASHED 1027, 1029* (Sams Publishing 1994). These were only a few among many similar attacks. Although Tom Caldwell and others prefer “cracker,” which to computer experts has a nonpejorative connotation, to “hacker”; however, this article refers to those who intentionally try to break into others’ computer systems as hackers. See Tom Caldwell, *Managing Internet Security*, in *THE INTERNET UNLEASHED*, *supra*, at 155, 160.

18. SHARP, *supra* note 1, at 20. Some commentators see a possibility of an “electronic Pearl Harbor” attack on defense facilities. Aldrich, *supra* note 1, at 225.

19. E.g., *Lawyer Likens the Melissa Virus to Graffiti*, N.Y. TIMES, Apr. 9, 1999, at B2; *Taiwan College Says Ex-Student Wrote Chernobyl Virus Program*, N.Y. TIMES, Apr. 30, 1999, at A10. See also *infra* note 69 and accompanying text.

20. See generally Ted Bridis, *Poisonous Message’s Potential to Destroy Files Prompted Vast E-Mail Shutdown*, WALL ST. J., May 5, 2000, at B1; Adam Cohen, *School for Hackers*, TIME, May 22, 2000, at 59; Lee Gomes, *Hacker Hunters Follow Crumbs on Cybertrail*, WALL ST. J., Feb. 24, 2000, at B1; Lee Gomes & Thomas E. Weber, *Hackers’ Weapon Exploits Internet’s Open Nature*, WALL ST. J., Feb. 10, 2000, at B1; David P. Hamilton, *Redesigning the Internet: Can It Be Made Less Vulnerable?*, WALL ST. J., Feb. 11, 2000, at B1; David P. Hamilton & David S. Cloud, *FBI Launches a Vast Manhunt, But the Trail is Byzantine and the Suspects Legion*, WALL ST. J., Feb. 10, 2000, at B1; *Internet Sites Across Europe Move to Step Up Security*, WALL ST. J., Feb. 11, 2000, at B5; John Markoff, *The Strength of the Internet Proves to Be Its Weakness*, N.Y. TIMES, Feb. 10, 2000, at C1; Matt Richtel

It has been suggested that cyberspace usage was a factor in the Columbine High School tragedy in Littleton, Colorado.²¹ Afterward, a wave of threats, some via the Internet and others in writing, graffiti, or by telephone, swept the United States.

Commentators, as well as a 1996 presidential Executive Order, postulate scenarios ranging from precipitation of major disasters—including the destruction of continuity of government, destruction of a national air control system, bringing down a military command and control system during a crucial battle, and alteration of medical data with resulting loss of life—to other serious problems—including major theft from banking systems and a loss of electric power, telecommunications, energy sources, water supply, or vital human services.²² Computer misuse can distort election campaigns, thereby perverting the democratic process.²³ A possibility of domestic terrorist attacks through

& Joel Brinkley, *Spread of Attacks on Web Sites Is Slowing Traffic on the Internet*, N.Y. TIMES, Feb. 10, 2000, at A1. Canadian police arrested "Mafiaboy," a 15-year-old accused of hacking a CNN website; more arrests are expected and damage may run into the millions. Matt Richtel, *Canada Arrests 15-Year-Old in Web Attack*, N.Y. TIMES, Apr. 20, 2000, at C1. Attacks came through a University of California at Santa Barbara computer. See *id.* at C6. Although the "love" attack started in the Philippines, copycat viruses proliferated thereafter. John Schwartz & David A. Wise, "Love" Virus Is Traced to Philippines, WASH. POST, May 6, 2000, at A1. See also *infra* note 69 and accompanying text.

21. Thomas E. Weber, *Did a Web Site Foreshadow a Killing Spree?*, WALL ST. J., Apr. 22, 1999, at B1.

22. In some instances these invasions have already occurred. Exec. Order No. 13010, 61 Fed. Reg. 37347 (1996); ROBERT H. ANDERSON ET AL., SECURING THE U.S. DEFENSE INFORMATION INFRASTRUCTURE: A PROPOSED APPROACH 1-3 (1999); CRYPTOGRAPHY'S ROLE IN SECURING THE INFORMATION SOCIETY, *supra* note 1, at 23, 30-38, 294-95; GREENBERG ET AL., *supra* note 1, at 3-6, 35-38; HUNDLEY ET AL., *supra* note 8, at 13-16; SHARP, *supra* note 1, at 20-23; SYSTEM SEC. STUDY COMM., *supra* note 17, at 9; TRUST IN CYBERSPACE, *supra* note 13, at 17-19, 47-54; Aldrich, *supra* note 1, at 231-32, 235, 262; Robert H. Anderson & Anthony C. Hearn, *An Exploration of Cyberspace Security R&D Investment Strategies for DARPA*, in IN ATHENA'S CAMP: PREPARING FOR CONFLICT IN THE INFORMATION AGE, *supra* note 2, at 253, 253-71; Richard O. Hundley & Robert H. Anderson, *Emerging Challenge: Security and Safety in Cyberspace*, in IN ATHENA'S CAMP: PREPARING FOR CONFLICT IN THE INFORMATION AGE, *supra* note 2, at 231, 235; Roger C. Molander et al., *U.S. Strategic Vulnerabilities: Threats Against Society*, in STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE, *supra* note 4, at 253, 256-63; Schmitt, *supra* note 12, at 156-57. See also NASA *Vulnerable to Attack from Cyberspace*, PROVIDENCE J., May 23, 1999, at A3 (reporting NASA computer systems defects that could lead to a major space exploration disaster like the loss of *Challenger*). On the plus side, however, patients can use computers for a "second opinion" in medical matters. Gina Kolata, *Web Research Transforms Visit to the Doctor*, N.Y. TIMES, Mar. 6, 2000, at A1. This may be part of a general trend toward patients seeking medical knowledge independently of a doctor's diagnosis. TOFFLER, POWERSHIFT, *supra* note 2, at 7-8.

23. For example, hackers tried but failed to get into the Gallup Organization's system before Super Tuesday 2000. This might have had a ripple effect on how people voted in those U.S. primary elections. *Hacker Strikes Gallup Site*, WINSTON-SALEM J., Mar. 7, 2000, at A4. See also Exec. Order No. 13010,

computer networks continues.²⁴ Commentators have suggested that some Internet misuse ripple effects may exist, including hijacking e-mail²⁵ and criminal activity preying on Internet users' fear of Y2K shutdowns.²⁶ (There was a hiccup in e-trading, and several big Internet stocks fell on U.S. exchanges after the early 2000 assault on the Internet.)²⁷ Any of the following may affect the Internet: natural phenomena, such as storms, floods, earthquakes; human carelessness like backhoes cutting phone lines; accidents such as rats chewing cables and system component failure; and oversights due to operator action, inaction, or lack of training.²⁸

A recent series of war games involving attacks on U.S. "cyberspace" suggests that this country's ability and resolve to

supra note 22 (stating that continuity of government is a "critical infrastructure" that if incapacitated would lead to a "debilitating" effect on U.S. "economic security"). Use of e-mail can have a similar effect, to the extent voters might read and believe false messages before voting. This is, of course, no more than electronic rumor-mongering, but it might be equally or more effective than word of mouth or similar communications. There is, of course, a possibility of interactivity with an e-mail sender that traditional media communications cannot afford. TOFFLER & TOFFLER, *supra* note 12, at 208-10. This kind of hacking is also analogous to propaganda attacks that have been used to try to topple governments in prior wars; only the method is different. See generally Aldrich, *supra* note 1, at 245.

24. *Americans' "Addiction" to Computers May Leave U.S. Open to Terror Attacks*, WINSTON-SALEM J., Nov. 5, 1999, at A14. See also *supra* note 15 and accompanying text. Treaties to help combat cyber-terrorism have been proposed. See ABRAHAM SOFAER & SEYMOUR E. GOODMAN, STANFORD UNIV. CENTER FOR INT'L SECURITY & COOPERATION, A PROPOSAL FOR AN INTERNATIONAL CONVENTION ON CYBER CRIME AND TERRORISM (2000).

25. Michael Moss, *Inside the Game of E-mail Hijacking*, WALL ST. J., Nov. 9, 1999, at B1.

26. Y2K referred to the anticipated disruption of computers and related systems, such as banking and businesses, on January 1, 2000 because older computers were programmed to read "00" as 1900. Upgrades tried to correct problems worldwide. See generally *Americans' "Addiction" to Computers May Leave U.S. Open to Terror Attacks*, *supra* note 24; Marc Lacey, *F.B.I. Warns Criminals That It's Year 2000 Ready*, N.Y. TIMES, Nov. 5, 1999, at A24. An electronic ripple effect might have been combining viruses with Y2K. Dean Takahashi, *Y2K and Viruses Could Be an Explosive Mix*, WALL ST. J., Dec. 16, 1999, at B6. As it happened, the millennium began with few ripples in the United States and most "wired" countries. However, perceived emergencies like Y2K or the shift to the Euro may accelerate improvement in information systems or defenses. TRUST IN CYBERSPACE, *supra* note 13, at 187-88. See also *infra* notes 72-79 and accompanying text.

27. E.S. Browning, *Rate Fears, Hackers Fuel Bearish Session Touching All Sectors*, WALL ST. J., Feb. 10, 2000, at C1; Rebecca Buckman, *Cyberassaults Raise Jitters for Investors*, WALL ST. J., Feb. 10, 2000, at C1; Nick Wingfield & Scott Thurm, *As More Sites Get Hit, Web Companies Fortify*, WALL ST. J., Feb. 10, 2000, at B1. See also *supra* note 20 and accompanying text.

28. See SYSTEM SEC. STUDY COMM., *supra* note 17, at 9; TRUST IN CYBERSPACE, *supra* note 13, at 16-17, 37-38, 41-47; WILLIS H. WARE, *THE CYBER-POSTURE OF THE NATIONAL INFORMATION INFRASTRUCTURE* 9-10 (1998).

defend its overseas interests are put at risk by the sorts of IW attacks that could be within the means of unfriendly states in the near future. Coordinated attacks on the command and control of deploying U.S. forces, on U.S. allies, and on the public telephone network could derail an otherwise "routine" projection of military power. The games also show that neither government nor industry is well prepared for this threat, technically, institutionally, or intellectually.²⁹

Nonstate actors, such as international crime rings, terrorists, separatists, and cults, can get IW weapons or hire IW warriors. "Compared to the acts of clumsy governments, their attacks could be hard to trace, punish, and deter. These are increasingly dispersed entities, interconnected by . . . information technology."³⁰

Roberta Cooper Ramo, American Bar Association President, likened the Internet to the Wild West of the United States in the nineteenth century:

What is remarkable about the Internet is that it creates a real-time, worldwide community. Like the first communities of all cultures, but particularly those of America's Old West, it is a community without laws, judges, or even sheriffs. It is a global village where the citizens are . . . good Samaritans, holy monks, and evil Rasputins, where they devise self-help solutions to problems, and use capital punishment with no due process. An entire world exists on your home or office computer screen. In the electronic window you can see American ingenuity, public-spirited volunteers that rival the Red Cross, and a can-do attitude along with the rough-and-ready behavior of the OK Corral. It is a place without race, gender, or age. The global economy was made possible by modern transportation. The global society exists in its earliest primitive stage on the Internet.³¹

Ms. Ramo may have misstated one point and overstated another. More than American ingenuity is afoot on the Internet. There is law, including international law, to be applied in the information age like any other time, including the era of the Old West. What

29. Aldrich, *supra* note 1, at 228; Gompert, *supra* note 6, at 32. See also COMM. TO REVIEW DOD C4I PLANS AND PROGRAMS, *supra* note 6, at 132; SHARP, *supra* note 1, at 19-20; TRUST IN CYBERSPACE, *supra* note 13, at 18-19. To a certain extent the game anticipated reality. Cf. Simons, *supra* note 17, at A1.

30. Gompert, *supra* note 6, at 33. See generally Arquilla et al. in LESSER ET AL., *supra* note 4; Arquilla et al. in STRATEGIC APPRAISAL, *supra* note 4. At least one faction in the Yugoslav civil war, the Muslims, was involved in drug-smuggling operations. "Even more disturbing are the reports that the Italian and Russian Mafias may be organizing international networks to sell weapons-grade nuclear materials from the former Soviet Union to the highest bidder." BRIAN NICHIPORUK & CARL H. BUILDER, INFORMATION TECHNOLOGIES AND THE FUTURE OF LAND WARFARE 34 (1995). See also *supra* notes 4, 15, 24 and accompanying text; *infra* notes 43, 85 and accompanying text.

31. Roberta Cooper Ramo, *Executive Foreword* to G. BURGESS ALLISON, THE LAWYER'S GUIDE TO THE INTERNET xi (1995). See also ALLISON, *supra*, at 29, 42-43 (discussing "community" on the "E-Frontier").

will be interesting to observe, from a social perspective, is not *whether* the new frontier of the information age closes, but *when* it does. The U.S. western frontier is said to have closed about 1890,³² scant decades after the U.S. Army, Native Americans, Wyatt Earp, Wild Bill Hickok, Doc Holliday, the James brothers, other gangs of bank robbers and cattle thieves, miners and timber companies, feuding sheepmen and cattle barons and their ilk, rode and sometimes abused the range and the great spaces of the West. Their east and west coast counterparts, U.S. industry's so-called robber barons, some of whom were involved in the West's economic infrastructure (*e.g.*, the railroads carrying the mails the gangs robbed), began to fall to the Sherman Antitrust Act and the trust-busters, beginning about the same time.³³ Will the information age head to OK Corrals even more quickly?³⁴ We may not be at high noon, but that time may be coming soon.

32. FREDERICK JACKSON TURNER, *THE FRONTIER IN AMERICAN HISTORY* 38-39 (Holt, Rinehart & Winston 1962) (1920). Historians debate the validity of Turner's thesis, but it is fairly clear that this aspect of life in the western United States was mostly over by 1893, when Turner first spoke. *Id.* at 1 n.1. For an example of this debate, see *THE TURNER THESIS CONCERNING THE ROLE OF THE FRONTIER IN AMERICAN HISTORY* (George Rogers Taylor ed., rev. ed. 1956).

33. See *generally* HANS B. THORELLI, *THE FEDERAL ANTITRUST POLICY* (1955) (discussing the origins and application of An Act to Protect Trade and Commerce Against Unlawful Restraints and Monopolies, popularly known as the Sherman Antitrust Act, Pub. L. No. 103-325, 26 Stat. 209 (1890) (codified as amended at 15 U.S.C. §§ 1-7 (1994)). Turner linked these industrialists and capitalists with the frontier spirit of democracy, singling out Andrew Carnegie for praise. TURNER, *supra* note 32, at 264-65. However, Carnegie's media image, which Turner apparently believed, was not reality. Carnegie became an absentee owner, spending much time in Europe and leaving management of his empire to Henry Clay Frick. MARTHA FRICK SYMINGTON SANGER, *HENRY CLAY FRICK: AN INTIMATE PORTRAIT* 223-38, 277-85 (1998). For an example of some of these participants at work, see DAVID HAWARD BAIN, *EMPIRE EXPRESS: BUILDING THE FIRST TRANSCONTINENTAL RAILROAD* (1999) (describing the government support, financing and building of the Central Pacific and Union Pacific Railroads, which ended in the Credit Mobilier scandal).

34. Cf. ALVIN TOFFLER, *FUTURE SHOCK* (1970). Turner declared the frontier closed about 400 years after Columbus's discovery of America and 100 years after the Constitution became the legal foundation for the United States. TURNER, *supra* note 32, at 38. Thorelli says the aftermath of the Civil War, the heyday of unbridled growth of U.S. combinations in restraint of trade, was partly impelled by the phenomenal growth of industry in the North and high war tariffs to protect Northern industry and provide revenue for the war. THORELLI, *supra* note 33, at 55-96. If so, the 1890 Sherman Antitrust Act, *supra* note 33, and the cases decided under it lowered import duties. For example the McKinley and Wilson-Gorman Tariff Acts signaled the beginning of the end for the trusts twenty-five years later. *E.g.*, *United States v. American Tobacco Co.*, 221 U.S. 106 (1911); *Standard Oil Co. v. United States*, 221 U.S. 1 (1911); *Swift & Co. v. United States*, 196 U.S. 375 (1905); *Northern Securities Co. v. United States*, 193 U.S. 197 (1904); *Addyston Pipe & Steel Co. v. United States*, 175 U.S. 211 (1899); THORELLI, *supra* note 33, at 240-247, 466-77, 598-601. Given accelerating computer and Internet technical developments, might changes in Internet structure or freedom occur even more quickly, particularly in view of the risks to society that continue

This Article examines issues from the perspective of the international law of neutrality and its relationship to responses that a target country, such as the United States, might make through claims of individual or collective self-defense, necessity, and other sources of law—*jus ad bellum*. The Article also considers issues arising once international armed conflict or war has begun—*jus in bello*, and neutrals' and belligerents' roles in the context of the Internet. As noted above,³⁵ IW can range from tactical, battlefield contexts to global strategic warfare.³⁶ This spectrum of intensity in armed conflict may occur in any war.³⁷ The information revolution can be a "force multiplier" and "force modifier" for networks, not only in non-international conflicts,³⁸ but also in international armed conflicts, which are this Article's primary focus. Part II discusses the history and development of the Internet and discusses problems facing neutral countries in information warfare situations. Part III reviews the law of

to unfold? See *supra* notes 3-9, 12-29 and accompanying text; *infra* notes 80-107 and accompanying text. Another novel rapid communication method, the Pony Express, lasted only a few years before transcontinental telegraphs supplanted it.

35. See *supra* notes 3-9, 12-29 and accompanying text.

36. See generally ROGER C. MOLANDER ET AL., STRATEGIC INFORMATION WARFARE RISING xi, 5 (1998) (noting that strategic IW could pose threats to U.S. economic or military security); MOLANDER ET AL., *supra* note 14; Edward Harshberger & David Ochmanek, *Information and Warfare: New Opportunities for U.S. Military Forces*, in STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE, *supra* note 4, at 157-78 (stating that IW will be most useful at tactical through operational levels of conflict); Michael N. Schmitt, *Bellum Americanum: The U.S. View of Twenty-First Century War and Its Possible Implications for the Law of Armed Conflict*, 19 MICH. J. INT'L L. 1051, 1057 (1998) [hereinafter Schmitt, *Bellum*] (describing U.S. advanced operational concepts for use in the future); Schmitt, *supra* note 12, at 164; Shapiro, *supra* note 12, at 131-42 (discussing strategic information warfare). Netwar, *i.e.*, noninternational situations involving IW tactics, can also proceed at strategic, operational and tactical levels in a given confrontation. ARQUILLA & RONFELDT, *supra* note 4, at 77-78. See also *supra* note 4 and accompanying text; *infra* note 41 and accompanying text. Although it is not known to have involved computer interactions, changes in information technology facilitated the USSR's collapse. Zalmay Khalilzad & John White, *Introduction to STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE*, *supra* note 4, at 7, 8. Measures for countering IW threats by improved cyberspace security can range from local to strategic efforts. See HUNDLEY ET AL., *supra* note 8, at 37. See also *infra* notes 72-79 and accompanying text.

37. To illustrate the spectrum, see OCEANS LAW & POLICY DEPT., NAVAL WAR COLL. CENTER FOR NAVAL WARFARE STUDIES, ANNOTATED SUPPLEMENT TO THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS (NWP 1-14M/MCWP 5-2.1/COMDTPUB P5800.1) (1997), reprinted in A.R. THOMAS & JAMES C. DUNCAN, ANNOTATED SUPPLEMENT TO THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS, fig. A5-1, at 314 [U.S. Naval War Coll. Int'l Law Studies vol. 73, 1999] [hereinafter NWP 1-14M ANNOTATED]. Similar spectra might illustrate the physical destructiveness of attacks and the relative physical intrusiveness or character of the targets attacked. See generally GREENBERG ET AL., *supra* note 1.

38. Cf. ARQUILLA & RONFELDT, *supra* note 4, at 43-44 (discussing the use of an information revolution in the context of nonstate adversaries such as criminals).

neutrality and self-defense in the U.N. Charter context,³⁹ together with other responses international law allows in claims of information security once war begins,⁴⁰ and the law of neutrality during war. Part IV synthesizes Charter law and the law of neutrality in IW contexts, offering analogies that may be useful in a new area of jurisprudence. Part V is a brief appraisal.

This Article does not discuss IW during non-international armed conflicts or low intensity conflict (LIC) situations not amounting to international armed conflict.⁴¹ Nor does this Article analyze cyberwar-style intrusions that are or might be criminal law violations, tactics in business competition, or products of individuals or groups with lawful intentions resulting in

39. U.N. CHARTER arts. 25 (binding force of decisions), 48 (action to carry out Security Council decisions), 51 (right of self-defense), 103 (conflict between Charter and other obligations). See also *infra* notes 124, 168-75, 190 and accompanying text.

40. Cf. Becker, *supra* note 7 (describing U.S. measures to counteract cyberwarfare risks).

41. For information on this topic, see generally ARQUILLA & RONFELDT, *supra* note 4; John Arquilla & David Ronfeldt, *The Advent of Netware, in IN ATHENA'S CAMP: PREPARING FOR CONFLICT IN THE INFORMATION AGE*, *supra* note 2, at 275. Arquilla and Ronfeldt argue that "netwar" will figure increasingly at the societal end—where the language is normally about LIC and OOTW, a broader concept than LIC—including peacekeeping and humanitarian relief operations. Although cyberwar usually has formal military forces pitted against each other, netwar will more likely involve non-state, paramilitary and other irregular forces. Arquilla and Ronfeldt believe that netwar is more likely than cyberwar. ARQUILLA & RONFELDT, *supra* note 4, at 45-46, 53-56.

The LOAC recognizes differences between international armed conflicts, the theme of this article, and non-international armed conflicts, which are excluded from consideration. Compare, e.g., Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), June 8, 1977, 1125 U.N.T.S. 3 [hereinafter Protocol I] (stating supplemental principles for international armed conflicts), with Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II), June 8, 1977, 1125 U.N.T.S. 609 [hereinafter Protocol II] (stating principles for non-international armed conflicts such as civil wars). For LIC analysis, see generally ARQUILLA & RONFELDT, *supra* note 4, at 73 (analyzing the 1994-96 Zapatista LIC netwar, perhaps the first cyber campaign of its kind); LEGAL AND MORAL CONSTRAINTS ON LOW-INTENSITY CONFLICT (Alberto R. Coll et al. eds., U.S. Naval War Coll. Int'l Law Studies vol. 67, 1995). See also *supra* note 4 and accompanying text.

Military OOTW operations involve different factors and different C4I requirements. See COMM. TO REVIEW DOD C4I PLANS AND PROGRAMS, *supra* note 6, at 53-56. For analysis of U.S. military OOTW IW policy, see Roger D. Scott, *Legal Aspects of Information Warfare: Military Disruption of Communications*, 45 NAVAL L. REV. 57, 60 (1998). Moreover, IW may blur distinctions between Protocol I- and Protocol II-governed conflicts and principles and, for example, discrimination within these principles. Schmitt, *Bellum*, *supra* note 36, at 1074; Schmitt, *supra* note 12, at 158-59. Nevertheless, this analysis proceeds along traditional lines of distinction that present law makes between international and non-international armed conflicts.

disruptions.⁴² Thus, cyberwar by state-supported terrorists is considered, but an Internet campaign or use by terrorists for private gain,⁴³ analogous to piracy on the high seas,⁴⁴ is not.

42. For information on this topic, see generally ARQUILLA & RONFELDT, *supra* note 4 (discussing transnational criminal organizations (TCO)); RONFELDT ET AL., *supra* note 4, at 20; Gompert, *supra* note 6, at 33 (listing various sources of threats).

43. Some commentators suggest the possibility of transnational terrorism without differentiating between state-supported and other terrorist groups and note the possibility of groups with mixed motives, for example ethnic Muslims involved in drug smuggling and the Italian and Russian Mafiosi, that may be organizing international networks to sell weapons-grade nuclear materials from the former USSR. Brian Nichiporuk & Carl H. Builder, *Societal Implications, in IN ATHENA'S CAMP: PREPARING FOR CONFLICT IN THE INFORMATION AGE*, *supra* note 2, at 295, 302-03. See also ARQUILLA & RONFELDT, *supra* note 4, at 67-70; RONFELDT ET AL., *supra* note 4, at 19-20; John Arquilla & David Ronfeldt, *Looking Ahead: Preparing for Information-Age Conflict, in IN ATHENA'S CAMP: PREPARING FOR CONFLICT IN THE INFORMATION AGE*, *supra* note 2, at 439, 457-58 [hereinafter Arquilla & Ronfeldt, *Looking Ahead*]; Phil Williams, *Transnational Criminal Organisations and International Security, in IN ATHENA'S CAMP: PREPARING FOR CONFLICT IN THE INFORMATION AGE*, *supra* note 2, at 315, 315-37. Bruce Hoffman predicts a rise in religion-based terrorism, more "amateur" terrorism, and, paradoxically, the improved "professionalism" of some terrorist groups. Bruce Hoffman, *Responding to Terrorism Across the Technological Spectrum, in IN ATHENA'S CAMP: PREPARING FOR CONFLICT IN THE INFORMATION AGE*, *supra* note 2, at 339, 339-67. The PRC may be considering IW terrorism. Auerbach & Bulkeley, *supra* note 15, at B6. See also *supra* notes 4, 15, 24, 30 and accompanying text.

44. *E.g.*, ARQUILLA & RONFELDT, *supra* note 4, at 65-66. High seas piracy is a universal crime; anyone who seizes a pirate may try him. See generally U.N. Convention on the Law of the Sea, Dec. 10, 1982, arts. 100-07, 110, 1833 U.N.T.S. 3, 397, 436-38 [hereinafter UNCLOS]; Convention on the High Seas, Apr. 29, 1958, arts. 14-22, 13 U.S.T. 2312, 2317-18, 450 U.N.T.S. 82, 90-94 [hereinafter High Seas Convention]; RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 404 (1987); IAN BROWNLIE, *PRINCIPLES OF PUBLIC INTERNATIONAL LAW* 235-37 (5th ed. 1998); C. JOHN COLOMBOS, *THE INTERNATIONAL LAW OF THE SEA* §§ 457-64 (6th rev. ed. 1967); 2 D.P. O'CONNELL, *THE INTERNATIONAL LAW OF THE SEA* 966-78 (I.A. Shearer ed., 1984); 1 OPPENHEIM'S *INTERNATIONAL LAW* §§ 299-305 (Robert Jennings & Arthur Watts eds., 9th ed. 1996) [hereinafter OPPENHEIM]; 3 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY §§ 101.1-107.7(d), 110.1-110.11(h) (Satya N. Nandan & Shabtai Rosenne eds., 1995).

Guyana ratified UNCLOS on Nov. 16, 1993, and the treaty is now in force for ratifying states. By April 30, 1999, 129 countries had ratified, acceded or succeeded to UNCLOS including many states with large navies or significant merchant marines. Some of these states have flag of convenience registries whose beneficial ownerships often list U.S. interests, for example PRC, France, Germany, Greece, Honduras, Japan, Republic of Korea, Norway, Panama, Russia and the United Kingdom. UNITED NATIONS, *MULTILATERAL TREATIES DEPOSITED WITH THE SECRETARY-GENERAL: STATUS AS OF 30 APRIL 1999* at 754-56, U.N. Doc. ST/LEG/SER.E/17, U.N. Sales No. E.99.V.5 (1999).

The Clinton Administration sent UNCLOS to the U.S. Senate for advice and consent with a supplemental protocol, Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea, colloquially known as the "Boat Agreement," which amended UNCLOS deep seabed articles not relevant to this analysis. The United States and most other industrialized nations declined to sign UNCLOS in 1982 because of objectionable terms in its Part XI, which was concerned with deep seabed mining. Recognizing that

Concepts that may be invoked in these forms of IW are considered, however.⁴⁵

amending Part XI would be difficult once UNCLOS entered into force, U.N. Secretary-General Boutros Boutros-Ghali spearheaded a multinational effort to modify Part XI. That initiative was successful and on July 28, 1994 the U.N. General Assembly adopted the Boat Agreement. G.A. Res. 48/263, U.N. GAOR, 48th Sess., Supp. No. 49, U.N. Doc. A/RES/48/263 (1994). The amended UNCLOS has been before the U.S. Senate since that time. See PRESIDENT OF THE UNITED STATES, MESSAGE TRANSMITTING UNITED NATIONS CONVENTION ON THE LAW OF THE SEA, WITH ANNEXES, DONE AT MONTEGO BAY, JAMAICA, DECEMBER 10, 1982 (THE "CONVENTION"), AND THE AGREEMENT RELATING TO THE IMPLEMENTATION OF PART XI OF THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA OF DECEMBER 10, 1982, WITH ANNEX, ADOPTED AT NEW YORK, JULY 28, 1994 (THE "AGREEMENT"), AND SIGNED BY THE UNITED STATES, SUBJECT TO RATIFICATION, ON JULY 28, 1994, S. Treaty Doc. No. 103-39, 103d Cong., 2d Sess. (1994), reprinted in 6 U.S. Dep't St. Dispatch, Supp. No. 1, at 1-52 (1995). Many states have agreed to be bound by the Boat Agreement, have signed it, or have agreed to apply it provisionally. The United States is in the last category.

The United States has recognized UNCLOS' navigational articles, the principal interface for the law of naval warfare and the LOS, as representing customary international law for nearly two decades. See United States Ocean Policy, Mar. 10, 1983, 19 WEEKLY COMP. PRES. DOC. 383 (Mar. 14, 1983). Commentators generally agree that these provisions reflect customary international law. See, e.g., NWP 1-14M ANNOTATED, *supra* note 37, para. 1.1; U.S. DEPT OF THE NAVY, ANNOTATED SUPPLEMENT TO THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS: NWP 9A (Rev. A)/FMFM 1-10 & 1.1 (1989) [hereinafter NWP 9A ANNOTATED]; *Introductory Note*, in RESTATEMENT (THIRD) OF FOREIGN RELATIONS, Part V, at 3-5. Cf. John Norton Moore, *Introduction to 1 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY*, *supra*, at xxv, xxvii; Bernard H. Oxman, *International Law and Naval and Air Operations at Sea*, in THE LAW OF NAVAL OPERATIONS 19, 29 (Horace B. Robertson, Jr., ed., U.S. Naval War Coll. Int'l Law Studies vol. 64, 1991). But see 1 O'CONNELL, *supra*, at 48-49. O'Connell researched using UNCLOS drafts but died before the treaty text was available. I.A. Shearer made changes and additions and published O'Connell's treatise before final negotiations produced UNCLOS. I.A. Shearer, *Editor's Preface to 1 O'CONNELL*, *supra*, at vii. O'Connell's volumes may reflect views of the decade before the *Restatement (Third) of Foreign Relations* was published.

UNCLOS declares that it supersedes the High Seas Convention between UNCLOS parties. UNCLOS, *supra*, art. 311(1). See also Vienna Convention on the Law of Treaties, May 23, 1969, art. 59, 1155 U.N.T.S. 331, 345-46 [hereinafter Vienna Convention]; RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 323; LORD MCNAIR, THE LAW OF TREATIES 506-09 (2d ed. 1961); IAN SINCLAIR, THE VIENNA CONVENTION ON THE LAW OF TREATIES 184 (2d ed. 1984); 5 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY, *supra*, §§ 311.1-311.5, 311.11. Vaughan Lowe states that the 1958 LOS conventions cannot be denounced because they have no denunciation clauses. A.V. Lowe, *The Commander's Handbook on the Law of Naval Operations and the Contemporary Law of the Sea*, in THE LAW OF NAVAL OPERATIONS, *supra*, at 109, 120-21. However, the Vienna Convention, *supra*, art. 56, recites conditional opportunities for denunciation. See also RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 333; SINCLAIR, *supra*, at 183-84. The issue is moot for those states that ratify UNCLOS.

45. Unless otherwise noted, the following are general sources for Part I: ACLU v. Reno, 929 F. Supp. 824, 830-38 (E.D. Pa. 1996), *aff'd*, 521 U.S. 844, 849-53 (1997); ALLISON, *supra* note 31; THE INTERNET UNLEASHED, *supra* note 17; KATIE HAFNER & MATTHEW LYON, WHERE WIZARDS STAY UP LATE: THE ORIGINS OF THE INTERNET (1996); NICHIPORUK & BUILDER, *supra* note 30, at 1-5; George Johnson, *From Two Small Nodes, a Mighty Web Has Grown*, N.Y. TIMES, Oct. 12, 1999, at

II. THE INTERNET: DEVELOPMENT AND STRUCTURE

As its title suggested, Part I analyzed issues neutral countries and countries in international armed conflict may face in IW and other contexts involving the Internet. To understand the current IW context, one must consider the Internet's development and structure.

The Internet is an international network of interconnected computers. The network began in 1969 as the ARPANET military program⁴⁶ to enable computers operated by the military, defense contractors, and defense-related universities to communicate by redundant channels even if enemy attack damaged parts of the network. ARPANET was designed to survive nuclear attack and the possibility of an atomic blast's disruption of atmospheric communications, such as by radio.⁴⁷ ARPANET provided an example for developing linked non-military networks through

F1. The Supreme Court and District Court's *ACLU* opinions give the most compact analysis.

46. ARPANET is the acronym for Advanced Research Projects Agency Network. The Defense Communications Agency split the network into MILNET for unclassified information and ARPANET for the computer research community in 1983. HAFNER & LYON, *supra* note 45, at 249. As World War II ended, Vannevar Bush suggested the basic idea of a personal computer. He traced the history of calculators, discussed speech-controlled typewriters, and advocated document storage on super-fine grained microfilm shuffled by mechanical fingers. Bush believed that new logic and new symbolism would be necessary. Although he did not conceive of the idea of electronic communication, much that Bush predicted has become reality, albeit in different modalities. Vannevar Bush, *As We May Think*, ATLANTIC MONTHLY, July 1945, at 101; Johnson, *supra* note 45, at F1. Mechanical computers have been aboard U.S. warships since World War II to supply fire control solutions to naval guns through electric circuits. Although most firing corrections on these computers are made aboard ship by telephone communications among gunners (fire control personnel who operated visual or radar-assisted gun directors and ships' combat information centers, that is a room aboard ship where radar repeaters portrayed shell splashes), shore bombardment effects and recommendations for corrections sometimes came by radio communications between ships and shore spotters, for example U.S. Army or Marine Corps forward artillery observers on the ground or in aircraft. The ship's computer "stored" prior information that had been inserted and retained it until changed by operators. Information might be relayed through intra-ship communications, perhaps to other shipboard computers, but there was no data transfer among external computers, such as those on other vessels. Anti-submarine warfare systems, shipboard torpedo attack systems, and submarine fire control systems for torpedo attack employed similar fire control solutions using electronics-based systems like sonar and radar. Mechanical devices operated in similar fashion, but there was little if any information exchange between an attacking ship and other stations, except perhaps in "wolfpack" attacks. The World War II Norden bombsight aboard aircraft operated on similar principles; the bombardier "flew" a plane on final target approach and released bombs based on onboard computer calculations. These systems operate similarly today. Electronics-based computers have replaced mechanical ones, and missiles have replaced gun projectiles in many applications.

47. HAFNER & LYON, *supra* note 45, at 54-59.

which millions of people could communicate and access information on a worldwide basis. ARPANET was renamed DARPA^{Net} and ended in 1989.⁴⁸ With other formal or loose computer networks, such as BITNET, CSNET, FIDONET and USENET, these linked networks are today commonly known as the Internet.

Although ARPANET started with a handful of linked computers, by 1996 host computers numbered over nine million, with sixty percent in the United States. By 1999, Internet users were expected to mushroom to two hundred million worldwide.⁴⁹ ARPANET began communicating through special telephone lines; today Internet communications can travel through ordinary telephone lines, relays from microwave relay towers through the atmosphere, and satellite uplinks and downlinks.⁵⁰ Transistors, microchips, and fiber optic cables were major factors in development of the Internet.⁵¹ Fiber optic cable capacity, computer power, and communications capacities may grow exponentially, while computers and communications devices may become lighter, smaller, more reliable, more portable, less expensive, and consume less power in an increasingly globalized market for the next twenty years, varying in rate of change in different parts of the world. Satellites, imagery, and communications will also improve for satellite-based systems.⁵²

A message can travel many routes to a destination over this redundant system of linked computers. A message might begin in Country A and be sent to a computer in Country B, and then be forwarded to and through computers in Countries C, D, and E

48. Its sponsoring agency was reacronymed DARPA, which it remained until being retitled Advanced Research Projects Agency (ARPA). *Id.* at 219. More recently ARPA was renamed DARPA. U.S. Space Command is the U.S. military lead agency for coordinating computer network defense and attack. PRESIDENT OF THE UNITED STATES, MEMORANDUM TO SECRETARY OF DEFENSE (Sept. 29, 1999) (attaching revised UNIFIED COMMAND PLAN para. 22a(12) (1999)).

49. C. RICHARD NEU ET AL., SENDING YOUR GOVERNMENT A MESSAGE: E-MAIL COMMUNICATION BETWEEN CITIZENS AND GOVERNMENT xxi-xxii, 119-48 (1999) (reporting that major gaps in home computer availability in 1993 and 1997 had widened, particularly among less educated, lower income, Hispanic, Black, and more senior or rural people in the United States). See also NICHIPORUK & BUILDER, *supra* note 30, at 24 (stating computer connectivity will be much less rapid in Africa and the Middle East than in Europe and North America).

50. Wireless Internet communication is now a reality for anyone who buys a cheap hand-held device like a cellular telephone. See generally *The Internet Cuts the Cord*, WALL ST. J., Sept. 20, 1999, at A1.

51. NICHIPORUK & BUILDER, *supra* note 30, at 8-10, 14-15.

52. *Id.* at 15-24; Brian Nichiporuk, *U.S. Military Opportunities: Information-Warfare Concepts of Operation*, in STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE, *supra* note 4, at 179, 187. See also TOFFLER, THE THIRD WAVE, *supra* note 2, at 169 (writing in 1980 and predicting these developments); Lisa Guernsey, *Unplugged on Campus, But Always Connected*, N.Y. TIMES, Apr. 20, 2000, at G1; *The Internet Cuts the Cord*, *supra* note 50.

before reaching its addressee in Country F. If a message cannot travel the A-B-C-D-E-F path because of attack on or destruction of the route or system overload, for example, the Internet allows transmission by alternate routes through other nations, for instance A-G-H-I-F. Transmission and rerouting occur in seconds. Messages between computers on the Internet do not necessarily travel entirely along the same path. "Packet switching" protocols⁵³ allow individual messages to be subdivided into smaller "packets"—chunks of the message—sent independently to its destination. While all packets of a message often travel the same path to the destination, if computers along the way are overloaded or cannot transmit for other reasons, packets, like entire messages, can be rerouted to other computers. Thus the A-F message, if long enough, might be broken into three packets, one of which travels through computers in Countries A-B-C-D-E-F, the second through computers in Countries A-G-H-B-C-F, and the third through computers in Countries A-B-X-Y-Z-F. The destination computer in Country F reassembles the message from the packets. Although these hypotheticals describe transmissions through different countries, it is possible that some or all computers will be in the same country, except the destination computer (F), or that the message or packet will loop back through the same country or countries, before arriving in Country F, and maybe into space through satellite links.⁵⁴

53. A protocol is a collective agreement among network users so that respective computer systems can communicate. It has a different meaning in diplomacy and international law, usually referring to international agreements supplementary to a prior treaty, for example Protocol I, *supra* note 41. HAFNER & LYON, *supra* note 45, at 145-46; 2 CHARLES CHENEY HYDE, INTERNATIONAL LAW, CHIEFLY AS INTERPRETED AND APPLIED BY THE UNITED STATES § 514 (2d rev. ed. 1947); 1 OPPENHEIM, *supra* note 44, § 586 n.2. There are seven layers of Internet protocols: the physical, data link, network, transport, session, presentation and application. Martin Moore, *The Network of Networks*, in THE INTERNET UNLEASHED, *supra* note 17, at 64-67.

54. Message routing, or rerouting, has been a feature of telephone networks, over which Internet messages travel, for awhile. TOFFLER, POWERSHIFT, *supra* note 2, at 108-09. "Neural" networks may "remember" where traffic is great and automatically shift messages to less-traveled paths. Internet addresses typically include a final extension to their Uniform Resource Locator (URL). In the United States the most familiar URL extensions for Internet users are ".com" (commercial), ".edu" (educational), ".gov" (government agency), ".mil" (military), ".org" (non-profit organization) and ".net" (networking organization). TRUST IN CYBERSPACE, *supra* note 13, at 31; Martin Moore, *Domain Names and Internet Addresses*, in THE INTERNET UNLEASHED, *supra* note 17, at 71, 75. URLs locate a Web site, sound file, graphic image, or Web page. URLs have five elements: a protocol access, an Internet site, a path to locate an item on a Web server, a file name, and an anchor name referencing a specific location within a long Web page. Ivan Pope, *World Wide Web: Linking Information with Hypertext*, in THE INTERNET UNLEASHED, *supra* note 17, at 619, 635. See also ALLISON, *supra* note 31, at 60;

Anyone with Internet access may use many communication and information retrieval methods, which are constantly evolving and difficult to categorize. These include:

[E]lectronic mail (e-mail), automatic mailing services ("mail exploders," sometimes referred to as "listservs"), "newsgroups," "chat rooms," and the "World Wide Web." All of these methods can be used to transmit text; most can transmit sound, pictures, and moving video images. Taken together, these tools constitute a unique medium—known to its users as "cyberspace"—located in no particular geographical location but available to anyone, anywhere in the world, with access to the Internet.⁵⁵

E-mail allows sending an electronic message to another party or a group of addressees. The message is stored electronically, awaiting a recipient's checking her "mailbox" or making its presence known through a prompt signal. Unlike postal mail, e-mail usually is not sealed or secure.⁵⁶ It can be accessed or viewed on intermediate computers between sender and recipient unless messages are encrypted.⁵⁷ Mail exploders send

TRUST IN CYBERSPACE, *supra* note 13, at 29-33. For example, a complete URL is <http://www.law.wfu.edu/lawreview/info.html>. The protocol is "http"; "www.law.wfu.edu" refers to the Web server name; "law review" refers to the path; and "info.html" refers to a document name. A sender, or hacker, has a good idea where a query or message is going when it is sent, as distinguished from mass mail or junk mail sent to all sites.

55. *Reno v. ACLU*, 521 U.S. 844, 851 (1997).

56. See generally NEU ET AL., *supra* note 49, at xix-xxi, 95-117. Neu *et al.* state that "many see the extension of at least some postal regulations to e-mail as useful in the maturation of the new medium." *Id.* at 108. For an early analysis of e-mail, see generally ROBERT H. ANDERSON, UNIVERSAL ACCESS TO E-MAIL: FEASIBILITY AND SOCIETAL IMPLICATIONS (1995).

57. Computer programs may have encryption options among type font options. For example, the type font "Wingdings" looks like this when the word "wingdings" is encrypted: ✦✧■ŷ♣✧✧ŷ♣. However, anyone with the same program or elementary decryption skills can break such a code. Skilled programmers can develop more sophisticated encryption programs and confidential data, such as bank or business financial information, is routinely encrypted. See generally NEU ET AL., *supra* note 49, at 102-10. For an analysis of Internet security and cryptography issues, see generally COMM. TO REVIEW DOD C4I PLANS AND PROGRAMS, *supra* note 6, at 137-39; CRYPTOGRAPHY'S ROLE IN SECURING THE INFORMATION SOCIETY, *supra* note 1; HUNDLEY ET AL., *supra* note 8 (focusing on improved internet security); SYSTEM SEC. STUDY COMM., *supra* note 17. See also *infra* notes 72-79 and accompanying text. National policies on cryptography and the Internet vary widely. See generally Wayne Madsen et al., *Cryptography and Liberty: An International Survey of Encryption Policy*, 16 J. MARSHALL J. COMPUTER & INFO. L. 475 (1998).

messages⁵⁸ to a common e-mail address,⁵⁹ which forwards them to other subscribers.⁶⁰ Newsgroups serve regular participants, but others can read these postings. There are thousands of newsgroups, fostering information or opinion exchange on a topic. About 100,000 new messages may be posted daily; they are purged regularly. Those wishing to communicate more immediately may enter chat rooms to engage in real-time dialogue with others through computers. An alternative to newsgroups and chat rooms is videoconferencing, where participants can see and hear each other in real time; videoconferencing is expensive and limited in access for many, who can spend \$1000 on a computer plus a small monthly fee to have the same access. Before long, video cameras will upload to the Internet; cost differences may disappear.⁶¹

The best known category of communication over the Internet is the World Wide Web, which allows users to search for and retrieve information stored in remote computers, as well as, in some cases, to communicate back to designated sites [T]he Web [is] . . . a

58. E-mail is analogous to facsimile mail (fax), by which documents are sent to a recipient through telephone systems. Fax has existed for years but only recently has become generally available for everyone through inexpensive fax machines. While fax is relatively slow and expensive compared with e-mail because it is dependent on telephone long distance rates, fax has an advantage in sending exact documents, including signatures. Cf. NEU ET AL., *supra* note 49, at xxiii, 149-51 (noting that e-mail is cheaper than postal service, the medium may allow improved information service between citizens and governments, increased government e-mail use may spur Internet access, and citizens will eventually insist on communicating with government through e-mail). E-mail proliferation, however, may create its own communication and information clog. James Rosen, chair and chief operating officer of an Internet software company, was recently quoted, "[T]he more you use and respond to e-mail, the more of it you generate, so I'm now spending more and more of my day on it." He is beginning to wonder whether e-mail has become more of a burden than benefit—lowering his productivity, rather than boosting it." Carol Hymowitz, *Flooded with E-Mail? Try Screening, Sorting, or Maybe Just Phoning*, WALL ST. J., Sept. 26, 2000, at B-1. Rosen's experience reflects anecdotal evidence communicated to me by academics, lawyers, business people, and other professionals, for example military officers.

Fax is relatively confidential, unless a sender enters the wrong fax number, which can result in misdelivery; the same applies to e-mail. E-mail is sufficiently confidential so that messages involving lawyer-client matters may be sent with reasonable expectations of privacy; e-mail does not violate the lawyer-client privilege. *In re Grand Jury Proceedings*, 43 F.3d 966, 968 (5th Cir. 1994). *But see* *United States v. Keystone Sanitation Co.*, 903 F. Supp. 803, 808 (M.D. Pa. 1995); ABA Comm. on Ethics and Prof'l Responsibility, Formal Op. 99-413 (1999) (construing Model Rules of Professional Conduct R. 1.6 but not considering the possibility of e-mail sent other than by land lines and noting that some state bars accept this principle even though earlier ethics opinions had rejected it).

59. I recall an incident in which an employee e-mailed a fellow employee, professing undying love, etc. Instead of sending it to only the employee, he hit the mail exploder key and routed it to everyone. How the affair's succeeding chapters unfolded is unknown, but other employees receiving the e-mail enjoyed a chuckle.

60. Today facsimiles can also transmit documents to multiple addressees.

61. Arquilla & Ronfeldt, *Looking Ahead*, *supra* note 43, at 490.

vast number of documents stored in different computers all over the world. Some of these documents are simply files containing information [M]ore elaborate documents, commonly known as Web “pages,” are also prevalent. Each has its own address—“rather like a telephone number.” Web pages frequently contain information and sometimes allow the viewer to communicate with the page’s (or “site’s”) author. They generally also contain “links” to other documents created by that site’s author or to other (generally) related sites

Navigating the Web is relatively straightforward. A user may either type the address of a known page or enter one or more keywords into a commercial “search engine” [e.g., Altavista, Excite, Lycos, Magellan, Webcrawler, Yahoo!] . . . to locate sites on a subject of interest. A particular Web page may contain the information sought by the “surfer,” or, through its links, it may be an avenue to other documents located anywhere on the Internet. Users generally explore a given Web page, or move to another, by clicking a computer “mouse” on one of the page’s icons or links. Access to most Web pages is freely available, but some allow access only to those who [buy] . . . the right from a commercial provider. The Web is thus comparable . . . to . . . a vast library including millions of readily available and indexed publications and a sprawling mall offering goods and services.⁶²

From a sender’s point of view, the Web is:

[A] vast platform from which to address and hear from a worldwide audience of millions of readers, viewers, researchers, and buyers. [Anyone] . . . with a computer connected to the Internet can “publish” information. Publishers include government agencies, educational institutions, commercial entities, advocacy groups, and individuals. Publishers may either make their material available to the entire pool of Internet users, or confine access to a selected group, such as those willing to pay for the privilege. “No single organization controls any membership in the Web, nor is there any centralized point from which individual Web site or services can be blocked from the Web.”⁶³

The simplicity of web publishing allows millions of individuals and small organizations to use the Web to publish personal “home pages,” which function like individual newsletters. These are available to everyone on the Web.⁶⁴ Systems have been developed to control certain kinds of material, for instance, sexually explicit images, which may be available on computers with Internet access.⁶⁵ On the other hand, the Web is sophisticated and flexible enough to meet the needs of large corporations, brokerages, newspapers, and magazines, which publish on-line versions of their material. Government agencies

62. *Reno v. ACLU*, 521 U.S. 844, 852-53 (1997) (quoting *ACLU v. Reno*, 929 F.Supp. 824, 836 (E.D. Pa. 1996)).

63. *Reno*, 521 U.S. at 853 (quoting and citing *ACLU*, 929 F. Supp. at 838).

64. *Cf. Reno*, 521 U.S. at 853 n.9 (quoting *ACLU*, 929 F. Supp. at 837, and reporting “thousands” of web pages even though the number is in the millions today).

65. *Reno*, 521 U.S. at 854-55.

and the courts can use the Web to distribute information. The potential for education is tremendous.⁶⁶ The Web is not a component network of the Internet; it is a part of the software.⁶⁷

By contrast to the open, distributed, decentralized Web, private databases such as Dialog, Lexis-Nexis, and Westlaw have storehouses of information but can be accessed from the Internet only by passwords and access software. These databases are not linked into a single whole, as is the Web. The U.S. Department of Defense and other U.S. agencies have separate systems, such as the Global Command and Control System (GCCS) and the Global Combat Support System (GCSS). GCCS and GCSS, like other closed systems including Lexis-Nexis and Westlaw, also depend at least in part on the public telecommunications system and the Internet. The U.S. Defense Data Network has two principal networks, NIPRNet (Sensitive But Unclassified Internet Protocol Router Network) and SIPRNet (Sensitive Internet Protocol Router Network), which have connections to the Internet and the public telecommunications system besides being capable of being used independently.⁶⁸ Other countries have similar closed systems equally dependent on public telecommunications and the Internet.

Hackers have many ways to intrude into networked computers, some of them applying to all systems and some involving a particular system or kind of system. These include password attacks, where hackers guess at passwords needed to enter a computer system, perhaps with help of programs that try letter combinations or check for words through an electronic dictionary; logic bombs, which cause a computer program or system to perform operations departing from normal operating parameters; Trojan horses, which are programs appearing to perform legitimate and preauthorized functions but which conceal covert functions performing unauthorized operations within a system or network; viruses, which are code fragments within a computer program that reproduce by attaching themselves to another program with resulting damaged data, degraded system performance, or unauthorized system access; GPS fuzzer, which

66. See generally, e.g., DAVID J. MCARTHUR & MATTHEW W. LEWIS, *UNTANGLING THE WEB: APPLICATIONS OF THE INTERNET AND OTHER INFORMATION TECHNOLOGIES TO HIGHER LEARNING* (1998).

67. Pope, *supra* note 54, at 620-21.

68. ANDERSON, *supra* note 56, at 18-23; COMM. TO REVIEW DOD C4I PLANS AND PROGRAMS, *supra* note 6, at 31-35. "Ambitious plans are afoot . . . to create a single seamless, globe-girdling military communications network that goes beyond the U.S. forces—a modular system that can be shared by the forces of many nations at once." TOFFLER & TOFFLER, *supra* note 12, at 145. This may eliminate Tower of Babel problems that confronted Coalition forces during the 1990-91 Gulf War and that continue to challenge NATO communications. *Id.*

scrambles local reception of global positioning satellite (GPS) timing signals, thus inhibiting their use in navigation, etc.; flooding, whereby automated calls are made to a particular circuit to deny access to authorized users; packet sniffing, which occurs through programs placed on intermediate host computers to intercept and examine passing data packets for information, for which encryption is a protection; IP spoofing, which entails fooling another computer about one's computer identity by sending a fake Internet Protocol (IP) address; confidence games not unlike the pigeon drop, where hackers exploit user naivete to gain system access; exploiting software bugs. In addition, more traditional threats exist, such as physical destruction of facilities and wiretapping.⁶⁹ The types of attack the Defense Department systems and their counterparts face in other countries "are much broader and potentially much more serious and intense than those usually faced by commercial (nonmilitary) network information systems. The reason is that attacks on DOD C4I systems that are part of an attack sponsored or instigated by a foreign government can draw upon virtually unlimited resources devoted to those attacks."⁷⁰

Two basic principles of note are that cyber-attack is easier than cyber-defense, and cyber-attackers attack a defense's weakest points.⁷¹ There are computer-based defenses, including authentication, firewalls, encryption, audit logging, intrusion

69. See generally ANDERSON, *supra* note 56, at 7, 24-36; COMM. TO REVIEW DOD C4I PLANS AND PROGRAMS, *supra* note 6, at 135-36; CRYPTOGRAPHY'S ROLE IN SECURING THE INFORMATION SOCIETY, *supra* note 1, at 24, 49; MOLANDER ET AL., STRATEGIC INFORMATION WARFARE RISING, *supra* note 36, at 75; SYSTEM SEC. STUDY COMM., *supra* note 17, at 61; TOFFLER & TOFFLER, *supra* note 12, at 105; Khailizad, *supra* note 13, at 410-12 (examining the vulnerability of information systems at the physical systems, transmission systems, software, and data levels); Schmitt, Bellum, *supra* note 36, at 1067 (discussing refinement of traditional warfare tactics, such as logic bombs and sniffer programs). GPS aids, first developed for military use, are now in the public domain. Besides navigation and help for hikers, surveyors and fishermen, GPS may be used for missile guidance. The military can jam GPS in a focused region during crisis and the rest of the world can still use its signals for locations outside the crisis area. See generally SCOTT PACE ET AL., THE GLOBAL POSITIONING SYSTEM: ASSESSING NATIONAL POLICIES 45-91, app. B (1995); Carla Anne Robbins, *Government Will Authorize Civilian Use of Military-Quality Positioning Signal*, WALL ST. J., May 1, 2000, at A36.

70. COMM. TO REVIEW DOD C4I PLANS AND PROGRAMS, *supra* note 6, at 136. Whether this source is correct in saying that foreign government-sponsored or government-supported perpetrators are largely immune to retaliation or punishment through law enforcement channels, and are thus free to act virtually without constraint, depends on where the perpetrators operate. If within a sponsoring country, this is true. If they are within a target or cooperating state, however, they may be subject to those countries' laws denouncing this activity. Although government sites may be quite vulnerable to attack, companies operating internationally are not far behind. See CRYPTOGRAPHY'S ROLE IN SECURING THE INFORMATION SOCIETY, *supra* note 1, at 2.

71. COMM. TO REVIEW DOD C4I PLANS AND PROGRAMS, *supra* note 6, at 12.

detection and monitoring, virus protection, and vulnerability assessment tools.⁷² Other defenses include developing standard operating procedures and training personnel; many are common to any defense system.⁷³ Like any weapons system, IW deterrence is also a defense modality. Deterrence components include: identifying attacks or attackers; having the will to retaliate; giving a credible perception to an attacker that response is certain; and perhaps ensuring a "mutually assured disruption," in other words, that like a nuclear attack, an IW attack is likely to mean utter ruin to an attacker.⁷⁴ Prevention, or hindering an enemy from acquiring, deploying, or using IW weapons and techniques, is another possible response. Preventing deployment or use of IW weapons requires the ability to identify potential attackers, the ability to warn a target when IW attack is imminent, and the offensive IW capability to collect information about potential attackers and to respond preemptively to warnings of imminent IW attack⁷⁵—that is, to respond in

72. See generally ANDERSON, *supra* note 56, at 47-76, 113-42; SYSTEM SEC. STUDY COMM., *supra* note 17, at 74-142. See also generally CRYPTOGRAPHY'S ROLE IN SECURING THE INFORMATION SOCIETY, *supra* note 1; TRUST IN CYBERSPACE, *supra* note 13, at 33-36, 109-70, 293-95; Lee Gomes, *The Internet Under Siege: Digital Forensics' Sleuths Focus on Routers, Hope for Some Luck*, WALL ST. J., Feb. 11, 2000, at B5; Khalilzad, *supra* note 13, at 413. Some defenses like firewalls may be unnecessary for most home computers. Hackers usually cannot intrude into computers that are not on the Web regularly or long enough for penetration. Home computers linked by cable modems or high-speed DSL phone lines, however, may be penetrated more easily, since they are connected constantly. Walter S. Mossberg, *In the Age of Hackers, A Guide to Firewalls for Home Computers*, WALL ST. J., Feb. 24, 2000, at B1. Other defenses are in development but were not available to counter the Yahoo! attack. William M. Bulkeley, *The Internet Under Siege: Security Firm Says It Has Web Defense, But It Won't Be Available Right Away*, WALL ST. J., Feb. 11, 2000, at B5; Wingfield & Thurm, *supra* note 27. The computer may be useful in detecting and fighting attacks through data collation. TOFFLER & TOFFLER, *supra* note 12, at 157.

73. See generally ANDERSON, *supra* note 56, at 47-76, 113-42; SYSTEM SEC. STUDY COMM., *supra* note 17, at 74-142; TRUST IN CYBERSPACE, *supra* note 13, at 94-104; Khalilzad, *supra* note 13, at 414.

74. Khalilzad, *supra* note 13, at 418-26. See also *infra* note 168 and accompanying text.

75. Khalilzad, *supra* note 13, at 426-32. The U.S. Government-sponsored Computer Emergency Response Team (CERT), affiliated with Carnegie Mellon University, is a 12-year-old advisory service for Internet security issues having a potential of affecting large numbers of computers. It plays an important role as an early-warning system for viruses and other attacks. DARPA created CERT as a clearinghouse for information on the Internet after an early crippling attack. SYSTEM SEC. STUDY COMM., *supra* note 17, at 276-77; Dunne, *supra* note 6, at 4; Nick Wingfield & Clare Ansberry, *Expert Team Monitors Web's Security Holes*, WALL ST. J., Feb. 11, 2000, at B1. The Defense Data Network (DDN) Security Coordination Center (SSC) serves the unclassified DDN community as a clearinghouse for host and user security problems and fixes. The Lawrence Livermore National Laboratory established Computer Incident Advisory Capability (CIAC) to provide CERT-type services for computing within the U.S. Department of Energy. SYSTEM SEC. STUDY COMM., *supra* note 17, at 276-77.

anticipatory self-defense.⁷⁶ One problem, however, with responses to attacks on information systems is that attacks can happen too fast—more rapidly than other attack modalities such as supersonic missiles—to permit a response before damage is done.⁷⁷ This phenomenon has implications for the law of self-defense.

Good system security depends on several general principles: defense in depth; ensuring graceful compromised system degradation—in other words, assuring functionality despite local security failures; managing tensions between security and desirable system attributes, such as user convenience, interoperability, and standardization; doing what is possible, not what is perfect; and recognizing inherent weaknesses in passive defense.⁷⁸ Opponents to an IW-based response can use IW-based defenses or more conventional defenses, such as camouflage, concealment, dispersion, deception, and human intelligence.⁷⁹ These defenses are available to all states, including those with IW capability.

No state, intergovernmental organization (IGO), like the United Nations, or nongovernmental organization (NGO), like the International Committee of the Red Cross (ICRC),⁸⁰ owns or administers the Internet.

76. See *infra* note 168 and accompanying text for an analysis of anticipatory self-defense. As that analysis demonstrates, lawful IW responses can be anticipatory in nature. To that extent the National Research Council's conclusion that "[i]legal and technical constraints preclude retaliation against the perpetrator of an information systems attack . . ." is not correct. COMM. TO REVIEW DOD C4I PLANS AND PROGRAMS, *supra* note 6, at 143. Although technical constraints may be limiting factors, international law, particularly as viewed by the United States, does not bar anticipatory responses provided they are necessary, proportional, and admit of no other alternative.

77. Glenn C. Buchan, *Implications of Information Vulnerabilities for Military Operations*, in STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE, *supra* note 4, at 283, 315; Harshberger & Ochmanek, *supra* note 36, at 161-62 (noting that speed and decisiveness is a two-sided game); Nichiporuk, *supra* note 52, at 188, 191.

78. COMM. TO REVIEW DOD C4I PLANS AND PROGRAMS, *supra* note 6, at 12-13.

79. Stephen T. Hosmer, *The Information Revolution and Psychological Effects*, in STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE, *supra* note 4, at 217, 241.

80. NGOs figured prominently in the Zapatista uprising. There may be implications far beyond Mexico for this kind of insurgency. See generally ARQUILLA & RONFELDT, *supra* note 4, at 73-76 (mentioning Cuba, Nigeria, Russia, and Saudi Arabia as possible scenes of future netwars); RONFELDT ET AL., *supra* note 4, at 35-42; *supra* notes 4, 41 and accompanying text. NGO influence and advocacy may increase. NGOs have been defined to include nonprofit organizations, private voluntary organizations, and grass-roots organizations but not government-organized NGOs (GONGOs), government-inspired NGOs (GINGOs), or quasi-NGOs (QUANGOs). RONFELDT ET AL., *supra* note 4, at 35. See also ARQUILLA & RONFELDT, *supra* note 4, at 23-24. However:

No single entity—academic, corporate, or non-profit—administers the Internet. It exists and functions [because] . . . hundreds of thousands of separate operators of computers independently decided to use common data transfer protocols to exchange communications and information with other computers (which in turn exchange communications and information with still other computers). There is no centralized storage location, control point, or communications channel for the Internet, and it would not be technically feasible for a single entity to control all of the information conveyed on the Internet.⁸¹

A fortiori, no state has sovereignty over the Internet. Today, governments, IGOs, NGOs, public institutions, nonprofit organizations, businesses, and individuals own Internet-linked computers. NGOs have been seen as “the vanguard of social netwar,” the “point people” in social concern movements like economic development, the environment, human rights and the like.⁸² They may have the same role in the future, as may

The term NGO has many different meanings. Some . . . use it to mean all nongovernmental organizations everywhere, including Northern NGOs based in one developed country that operate internationally, international NGOs (INGOs) or networks based in three or more countries, Southern NGOs from the Third World, and many other kinds of nonprofit organizations throughout the world. The term also has numerous culturally specific meanings. In Western Europe, it generally means nonprofit[s] . . . that are active internationally. In the transitional countries of Europe and the former Soviet Union, it tends to mean all charitable and nonprofit organizations.

In the Third World, . . . NGO generally refers to organizations involved in development, broadly defined. Hospitals, charitable organizations, and universities are usually called voluntary or nonprofit organizations rather than NGOs. Although some . . . use . . . NGO to mean only intermediary or grassroots support organizations, all four types of NGOs are involved in sustainable development, and many individual organizations interact with governments.

JULIE FISHER, NONGOVERNMENTS: NGOs AND THE POLITICAL DEVELOPMENT OF THE THIRD WORLD 4-7 (1999). Grassroots organizations (GROs) are member-supporting NGOs, and GRSOs (grassroots support organizations) support them. There are perhaps 200,000 GROs and 50,000 GRSOs in Africa, Asia and Latin America. *Id.* The ICRC, a Swiss corporation, sponsors humanitarian law treaties and advocates respect for humanitarian law, among its other activities. See generally David Weissbrodt, *The Role of International Organizations in the Implementation of Human Rights and Humanitarian Law in Situations of Armed Conflict*, 21 VAND. J. TRANSNAT'L L. 313, 345-55 (1988).

81. ACLU v. Reno, 929 F. Supp. 824, 832 (E.D. Pa. 1996). See *supra* note 53 and accompanying text for a definition of protocols in the Internet and international law contexts.

82. Some NGOs are devoted to computer-related activity, for example the Electronic Freedom Foundation, Internet Society, Computer Professionals for Social Responsibility, and W3C. ARQUILLA & RONFELDT, *supra* note 4, at 71; JOHN ARQUILLA & DAVID RONFELDT, *THE EMERGENCE OF NOOPOLITIK: TOWARD AN AMERICAN INFORMATION STRATEGY* xi, 7-8 (1999) [hereinafter ARQUILLA & RONFELDT, *THE EMERGENCE*]; TOFFLER, *POWERSHIFT*, *supra* note 2, at 242-43; Auerbach & Bulkeley,

transnational corporations.⁸³

The Internet, as part of the information revolution, may have important societal implications, such as the weakening of hierarchies. In addition, a shift from relative poverty to abundance of information may allow individuals to bypass hierarchies that deliberately or inadvertently control or limit information. Furthermore, alternative organizational forms based on the Internet may prove more effective than hierarchies.⁸⁴ Transnational enterprises, some beneficial—such as international banking—and some detrimental to society generally—transnational terrorism, including “info-terrorism,” organized crime, and some religious fundamentalist terrorism, for example—may be facilitated.⁸⁵ These groups may even hire “cybermercenaries.”⁸⁶

Although the nation-state will likely “remain the most powerful actor in international events for the foreseeable future,” states “will increasingly find their powers curtailed by the availability of information to those who reside . . . within and outside their borders; and those powers that remain will increasingly have to contend with nonstate actors who are acquiring power through the availability of information.”⁸⁷

supra note 15, at B1; David P. Hamilton, *A Look at the Webureaucracy*, WALL ST. J., Feb. 11, 2000, at B1. See also Symposium, *Transitions to Democracy and the Rule of Law*, 5 AM. U.J. INT'L L. & POL'Y 965, 970 (1990) (remarks of Aryeh Neier); Weissbrodt, *supra* note 80, at 317, 365.

83. ARQUILLA & RONFELDT, *THE EMERGENCE*, *supra* note 82, at 62-64; TOFFLER, *POWERSHIFT*, *supra* note 2, at 457-60; TOFFLER, *THE THIRD WAVE*, *supra* note 2, at 322-24; Auerbach & Bulkeley, *supra* note 15, at B1; Peter J. Spiro, *Globalization, International Law, and the Academy*, 32 N.Y.U. J. INT'L L. & POLITICS 567, 569-72 (2000). Although Toffler suggests that the structure of the U.N. may change, this is not likely in the near future, given the number of U.N. Members (approaching 190) and how the Charter is modified. TOFFLER, *POWERSHIFT*, *supra* note 2, at 456-57. See also U.N. CHARTER arts. 108-09; LELAND M. GOODRICH ET AL., *CHARTER OF THE UNITED NATIONS* 638-47 (Columbia Univ. Press 1969) (1946); *THE CHARTER OF THE UNITED NATIONS: A COMMENTARY* 1163-89 (Bruno Simma ed., 1994).

84. NICHIPORUK & BUILDER, *supra* note 30, at 27-32. See also ARQUILLA & RONFELDT, *supra* note 4, at 29-30; TOFFLER, *supra* note 34, at 112-35; TOFFLER, *POWERSHIFT*, *supra* note 2, at 165-232; TOFFLER, *THE THIRD WAVE*, *supra* note 2, at 195-223.

85. NICHIPORUK & BUILDER, *supra* note 30, at 32-35. See also SYSTEM SEC. STUDY COMM., *supra* note 17, at 9; TOFFLER, *POWERSHIFT*, *supra* note 2, at 450-56; TOFFLER & TOFFLER, *supra* note 12, at 105, 145; Aldrich, *supra* note 1, at 235; Arquilla et al. in LESSER ET AL., *supra* note 4, at 39; Arquilla et al. in STRATEGIC APPRAISAL, *supra* note 4, at 75; Auerbach & Bulkeley, *supra* note 15, at B1; Carl H. Builder, *The American Military Enterprise in the Information Age*, in STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE, *supra* note 4, at 19, 31; Jessica Mathews, *Power Shift*, FOREIGN AFF., Jan.-Feb. 1997, at 50, 51.

86. Buchan, *supra* note 77, at 314; Khalilzad, *supra* note 13, at 408.

87. NICHIPORUK & BUILDER, *supra* note 30, at 35. See also TOFFLER, *THE THIRD WAVE*, *supra* note 2, at 325; TOFFLER & TOFFLER, *supra* note 12, at 242;

National governments may have considerably less control over currencies and their valuation, markets and prices, businesses and their regulation, national borders and people and commodity movements across them, and information available to the public.⁸⁸ Along with these trends exists the possibility of new identities, loyalties, and "virtual communities." Some "new" affiliations may be resurrections of old identities,⁸⁹ for example tribalism.⁹⁰ Some commentators are less convinced these trends are occurring.⁹¹

New organizational behavior models may be more turbulent, chaotic, and complex.⁹² Now may be a time of "blurry boundaries," with the biggest boundary blur of all being between "foreign" and "domestic," such that a new term, "intermestic," may apply.⁹³

Organizational structures within business and military communities may change from hierarchical structures to more decentralized models.⁹⁴ A "leaner" military that is more "joint,"

Builder, *supra* note 85, at 25-26; Andrew W. Marshall, *Foreword* to STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE, *supra* note 4, at 1, 4-5; Toffler & Toffler, *supra* note 2, at xix-xx.

88. ARQUILLA & RONFELDT, *supra* note 4, at 17-18; NICHIPORUK & BUILDER, *supra* note 30, at 35-38; TOFFLER & TOFFLER, *supra* note 12, at 169. *But see* Shapiro, *supra* note 12, at 123-29 (noting that information manipulation, perhaps through other forms such as newspapers, is not a new phenomenon and that the trend may not continue). The information revolution may promote new methods of citizen participation. TOFFLER, THE THIRD WAVE, *supra* note 2, at 428-31.

89. ARQUILLA & RONFELDT, *supra* note 4, at 17-18, 27-28, 33-34; CRYPTOGRAPHY'S ROLE IN SECURING THE INFORMATION SOCIETY, *supra* note 1, at 25-26. *See also* TOFFLER, *supra* note 34, at 251-67; TOFFLER, POWERSHIFT, *supra* note 2, at 450-52; TOFFLER, THE THIRD WAVE, *supra* note 2, at 232, 311-19; Toffler & Toffler, *supra* note 2, at xx-xxiii. In some instances these movements may try to turn back the clock, for example returning to a simpler, more primitive system. TOFFLER, POWERSHIFT, *supra* note 2, at 364-79; TOFFLER, THE THIRD WAVE, *supra* note 2, at 256.

90. TOFFLER, POWERSHIFT, *supra* note 2, at 243-44; TOFFLER & TOFFLER, *supra* note 12, at 3; Walter Goldstein, *Europe After Maastricht*, FOREIGN AFF., Winter 1992-93, at 117, 123; Robert S. Wood, *Europe: Transfigured or Transfixed?*, NAVAL WAR C. REV., Autumn 1992, at 20, 22-23.

91. *E.g.*, Shapiro, *supra* note 12, at 118-23, 146-47.

92. ARQUILLA & RONFELDT, *supra* note 4, at 17-18.

93. Toffler & Toffler, *supra* note 2, at xvi-xix. *Cf.* Schmitt, *Bellum*, *supra* note 36 (IW will blur or stress traditional concepts of U.N. Charter law and the LOAC); Schmitt, *supra* note 12, at 158-59 (IW will also blur principles within these bodies of law such as discrimination between legitimate military targets and forbidden civilian objects). This is why I advocate applying general principles of law to IW situations where international issues are involved and there are no developed customary norms or treaty law. Even here different rules and policies may be at stake for noninternational armed conflicts. *See supra* note 41 and accompanying text; *infra* Part IV.

94. CRYPTOGRAPHY'S ROLE IN SECURING THE INFORMATION SOCIETY, *supra* note 1, at 25-26; NICHIPORUK & BUILDER, *supra* note 30, at 38-54, 63-79; TOFFLER, *supra* note 34, at 112-35; TOFFLER, POWERSHIFT, *supra* note 2, at 165-232; TOFFLER, THE THIRD WAVE, *supra* note 2, at 195-223; Francis Fukuyama & Abram

where space, air, naval, and ground forces operate as integrated units, may result.⁹⁵ The “enemy” and the military missions may be quite different in the new era,⁹⁶ although a possibility remains that an opponent may rely on conventional, rather than IW, technology in conflict with a “wired” country like the United States.⁹⁷ The immediate effects of information warfare may differ from the long-range effects, including the parties’ reactions to vulnerabilities and whether attackers keep ahead of the development of defenses.⁹⁸ “[T]he way we make war reflects the way we make wealth—and the way we make anti-war must reflect the way we make war.”⁹⁹ Commentators have disagreed about whether a true “revolution in military affairs” (RMA)¹⁰⁰ is underway, or whether the military’s response to the information age should be more evolutionary, adaptive, and flexible. False revolutions can impose severe costs, such as causing the failure to adapt to a genuine revolution, which is a relatively infrequent

N. Shulsky, *Military Organization in the Information Age: Lessons from the World of Business*, in STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE, *supra* note 4, at 327. This is already so in some countries, where the military is reorganizing along the new corporate lines. *E.g.*, Stephen J. Glain, *Israel’s Military Is High-Tech Incubator*, WALL ST. J., Mar. 6, 2000, at A18.

95. Fukuyama & Shulsky, *supra* note 94, at 357-58; David C. Gompert, *Right Makes Might: Freedom and Power in the Information Age*, in STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE, *supra* note 4, at 45, 60-61. “Jointness” or “purple,” a combination of colors of all U.S. military forces, is a feature of today’s downsized U.S. military.

96. The information revolution for the U.S. military will probably not be acquiring new tools for fighting traditional wars but serving a changed society that has new and different expectations, assignments and support for its military. Some commentators recognize eight enterprises for the military, some of them quite traditional: providing constabulary capabilities, for example in Bosnia-Herzegovina; mounting expeditionary forces, for example in the 1990-91 Gulf War; keeping military arts and sciences alive; providing deterrents; providing forward defenses; providing global presence; defending the homeland; and maintaining a mobilization base, all of which could be at stake in the information age. NICHIPORUK & BUILDER, *supra* note 30, at 54-58; Builder, *supra* note 85, at 28-32, 38-42.

97. This was the U.S. experience in the Vietnam War, in which the North Vietnamese fought on foot. Gompert, *supra* note 95, at 61. *See also* TOFFLER & TOFFLER, *supra* note 12, at 81-86 (collision of war-forms between or among agriculture, industry and information-based countries, *i.e.*, Toffler’s First, Second and Third Waves); Hosmer, *supra* note 14, at 241-42 (U.S. fighting urban warfare in World War II, Korea, Vietnam, Somalia, Bosnia-Herzegovina and opponents’ use of civilian populations and facilities as shields); Schmitt, *supra* note 12, at 155-56. Other opponents may try to right the balance through weapons of mass destruction and their delivery systems, maybe using cheap communications means such as satellites that are available to all. They may use a strategy of targeting a key vulnerability, perhaps by traditional attack modes on telephone lines or supply centers. Nichiporuk, *supra* note 52, at 179, 183-90.

98. Marshall, *supra* note 87, at 4.

99. TOFFLER & TOFFLER, *supra* note 12, at 3.

100. *See generally* IN ATHENA’S CAMP: PREPARING FOR CONFLICT IN THE INFORMATION AGE, *supra* note 2, at 23-171; Fukuyama & Shulsky, *supra* note 94.

and cataclysmic event.¹⁰¹ The current RMA debate,¹⁰² like the more general arguments over the advent of an information revolution affecting many aspects of world and national social orders, falls into that analysis. Even so, fighting a war by silicon chip, with its inevitable casualties, may be cheaper than waging war involving heavy human casualties. Waging IW, however, will not provide perfect security.¹⁰³

The prospect remains, however, that IW may make traditional war among wired countries, including less developed nations, less likely, and that information technology may help enhance international security.¹⁰⁴ One possibility is psychological warfare through IW means, such as informing an opponent of the absolute weakness of its position at strategic, operational, and tactical levels because every aspect of its planned operations is known.¹⁰⁵ New dimensions of the ethics, or "rightness," of armed conflict in a given situation may arise, however,¹⁰⁶ perhaps as part of "noopolitik,"—that is, politics based on ethics and ideas—compared with realpolitik—politics

101. Shapiro, *supra* note 12, at 114-16.

102. *E.g.*, IN ATHENA'S CAMP: PREPARING FOR CONFLICT IN THE INFORMATION AGE, *supra* note 2, at 23-171; Fukuyama & Shulsky, *supra* note 94; Schmitt, *Bellum*, *supra* note 36, at 1058-62.

103. Martin Libicki & Jeremy Shapiro, *Conclusion: The Changing Role of Information in Warfare*, in STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE, *supra* note 4, at 437, 438-42; Schmitt, *Bellum*, *supra* note 36, at 1063-64; Schmitt, *supra* note 12, at 155 (danger of asymmetrical warfare). *See also supra* note 97 and accompanying text.

104. Gompert, *supra* note 95, at 66-73.

105. As Hosmer states, advanced technological systems capability "should be severely demoralizing to enemy forces because they would face the following prospects":

- If we fly, we die.
- If we fire, we die.
- If we communicate, we die.
- If we radiate [radars or other electronic emissions], we die.
- If we move with our vehicles, we die.
- If we remain with our weapons, we die.

Hosmer, *supra* note 79, at 233. This was true during the 1990-91 Gulf War. *Id.* at 234-35. *See also* Schmitt, *Bellum*, *supra* note 36, at 1057-63. Some IW-based weapons' lethality may raise opposition based on principles of humanity. *Id.* at 1083-85. Adversaries may try their own brands of psychological warfare, including methods threatening or causing high casualties, which is America's "Achilles heel." IW can help protect against these threats. Hosmer, *supra* note 79, at 237-38, 247. *See also* ANDERSON, *supra* note 56, at 107-12. Web sites can be used for other kinds of psychological warfare, such as a fraudulent credit card scheme to destroy senior officers' credit ratings during a conflict. Thomas E. Ricks, *This Stealth Offensive Turns Military Brass into Sitting Ducks*, WALL ST. J., Dec. 8, 1999, at A1.

106. *See generally* John Arquilla, *Ethics and Information Warfare*, in STRATEGIC APPRAISAL: THE CHANGING ROLE OF INFORMATION IN WARFARE, *supra* note 4, at 379.

based on practical and material factors, which has dominated international relations for two centuries.¹⁰⁷ Many of the latter issues have particular relevance for this Article's analysis, which involves conduct of belligerent countries in less than total or worldwide war and, more critically, belligerents' conduct toward neutral nations or neutrals' conduct toward belligerents or with each other. For the place of neutrality in the era of the U.N. Charter, we turn to Part III.

III. NEUTRALITY IN THE CHARTER ERA¹⁰⁸

"There is nothing new about revising neutrality; it has undergone an almost constant process of revision in detail," Philip Jessup concluded in 1936.¹⁰⁹ He also believed that "nothing could be more fallacious than the attempt to test the application of rules of neutrality by the principles of logic. Since they are products of compromise and of experience, logic has found practically no place in their development and cannot properly be used in their application."¹¹⁰ Over half a century into the U.N. Charter era, little would change these observations, even in the IW¹¹¹ context. New considerations have appeared,¹¹² including the Charter.

107. The conceptual reach of the noosphere, or globe-circling realm of the mind or thinking circuit, is larger than the infosphere, which includes cyberspace plus a range of other information systems such as libraries and the electronic systems of the military information environment above and around a battlespace. Cyberspace is the global system of systems of Internet-connected computers. See generally ARQUILLA & RONFELDT, *THE EMERGENCE*, *supra* note 82, at 4-5, 7-53, 71-73 (citing Henry Kissinger and Hans Morgenthau as realpolitik proponents). See also HENRY A. KISSINGER, *DIPLOMACY* (1994); HANS J. MORGENTHAU, *POLITICS AMONG NATIONS* (Alfred A. Knopf 1953) (1948).

108. Portions of Part III have been adapted from: GEORGE K. WALKER, *THE TANKER WAR 1980-88: LAW AND POLICY* (U.S. Naval War Coll. Int'l Law Studies vol. 74, 2000) [hereinafter WALKER, *THE TANKER WAR*]; George K. Walker, *Maritime Neutrality in the Charter Era*, 17 *CENTER OCEANS L. & POL'Y PROC.* 124 (Univ. of Va. Sch. of Law ed., 1993) [hereinafter Walker, *Maritime Neutrality*].

109. PHILIP C. JESSUP, *NEUTRALITY: TODAY AND TOMORROW* 156 (1936).

110. *Id.* at 16 (quoting PHILIP C. JESSUP & FRANCIS DEÁK, *NEUTRALITY: THE ORIGINS* xiii-xiv (1935)). Oliver Wendell Holmes wrote in a similar vein that a page of history is worth a volume of logic and that the life of the law has not been logic but experience. *New York Trust Co. v. Eisner*, 256 U.S. 345, 349 (1921); OLIVER WENDELL HOLMES, *THE COMMON LAW* 5, 244 (Mark DeWolfe Howe ed., 1963).

111. For IW definitions, see *supra* note 1.

112. *E.g.*, MYRES S. MCDUGAL & FLORENTINO P. FELICIANO, *LAW AND MINIMUM WORLD PUBLIC ORDER: THE LEGAL REGULATION OF INTERNATIONAL COERCION* 384-519 (1961); NILS ØRVIK, *THE DECLINE OF NEUTRALITY: 1914-1941* at 279-302 (2d ed. 1971); Walter L. Williams, Jr., *Neutrality in Modern Armed Conflict: A Survey of the Developing Law*, 90 *MILITARY L. REV.* 9 (1980) (considering a multifactor approach to neutrality law and its place in the law of war (LOW), *i.e.*, the law of armed conflict (LOAC)). Williams cites the LOW and the LOAC interchangeably and also

The process of analyzing the law of neutrality defies a straightforward, positivist, black-letter approach. For example, principles of neutrality for maritime warfare have been seen to be less rigid, from a historical perspective, than those for air or land warfare.¹¹³

Some claim neutrality is in "chronic obsolescence."¹¹⁴ A major reason, according to those who say future applications of

refers to "war" and "armed conflict" interchangeably. Williams, *supra*. For more conventional analyses, see D.W. BOWETT, SELF-DEFENSE IN INTERNATIONAL LAW 156-81 (1958); IAN BROWNLIE, INTERNATIONAL LAW AND THE USE OF FORCE BY STATES (1963); ERIK CASTREN, THE PRESENT LAW OF WAR AND NEUTRALITY 421 (1954); COLOMBOS, *supra* note 44, at 627-825; YORAM DINSTEIN, WAR, AGGRESSION AND SELF-DEFENCE 25-30, 163-67 (2d ed. 1994); JURG MARTIN GABRIEL, THE AMERICAN CONCEPTION OF NEUTRALITY AFTER 1941 (1988); MORRIS GREENSPAN, THE MODERN LAW OF LAND WARFARE 515-86 (1959); 7 GREEN HAYWOOD HACKWORTH, DIGEST OF INTERNATIONAL LAW, §§ 656-91 (1943); 3 HYDE, *supra* note 53; HANS KELSEN, COLLECTIVE SECURITY UNDER INTERNATIONAL LAW 154-71 (U.S. Naval War Coll. Int'l Law Studies vol. 49, 1957) [hereinafter KELSEN, COLLECTIVE]; HANS KELSEN, PRINCIPLES OF INTERNATIONAL LAW 154-73 (Robert W. Tucker ed., 2d ed. 1966); NWP 1-14M ANNOTATED, *supra* note 37; NWP 9A ANNOTATED, *supra* note 44; 2 O'CONNELL, *supra* note 44, at 1141-58; 2 L. OPPENHEIM, INTERNATIONAL LAW 624-879 (H. Lauterpacht ed., 7th ed. 1952) [hereinafter OPPENHEIM]; JOHN F.L. ROSS, NEUTRALITY AND INTERNATIONAL SANCTIONS: SWEDEN, SWITZERLAND AND COLLECTIVE SECURITY (1989); JULIUS STONE, LEGAL CONTROLS OF INTERNATIONAL CONFLICT (1959); ROBERT W. TUCKER, THE LAW OF WAR AND NEUTRALITY AT SEA 165-356 (U.S. Naval War Coll. Int'l Law Studies vol. 50, 1955); 11 MARJORIE M. WHITEMAN, DIGEST OF INTERNATIONAL LAW 139-475 (1968); Michael Bothe, *Neutrality at Sea*, in THE GULF WAR OF 1980-1988: THE IRAN-IRAQ WAR IN INTERNATIONAL LEGAL PERSPECTIVE 205 (Ige F. Dekker & Harry H.G. Post eds., 1992) [hereinafter Bothe, *Neutrality at Sea*]; Michael Bothe, *Neutrality in Naval Warfare: What Is Left of Traditional Law?*, in HUMANITARIAN LAW OF ARMED CONFLICT: CHALLENGES AHEAD 387 (Astrid J.M. Delissen & Gerard J. Tanja eds., 1991); Francis Deák, *Neutrality Revisited*, in TRANSNATIONAL LAW IN A CHANGING SOCIETY: ESSAYS IN HONOR OF PHILIP C. JESSUP 137 (Wolfgang Friedman et al. eds., 1972); Andrea Gioia, *Neutrality and Non-Belligerency*, in INTERNATIONAL ECONOMIC LAW AND ARMED CONFLICT 51 (Harry H.G. Post ed., 1995); A. Gioia & N. Ronzitti, *The Law of Neutrality: Third States' Commercial Rights and Duties*, in THE GULF WAR OF 1980-1988, *supra*, at 221; Mark W. Janis, *Neutrality*, in THE LAW OF NAVAL OPERATIONS, *supra* note 44, at 148; Titus Komarnicki, *The Place of Neutrality in the Modern System of International Law*, 80 RECUEIL DES COURS DE L'ACADEMIE DE DROIT INTERNATIONAL 395 (1952); J.F. Lalive, *International Organizations and Neutrality*, 24 BRIT. Y.B. INT'L L. 72 (1972); John H. McNeill, *Neutral Rights and Maritime Sanctions: The Effects of Two Wars*, 31 VA. J. INT'L L. 631 (1991); Patrick M. Norton, *Between the Ideology and the Reality: The Shadow of the Law of Neutrality*, 17 HARV. INT'L L.J. 249 (1976); Dietrich Schindler, *Transformations in the Law of Neutrality Since 1945*, in HUMANITARIAN LAW OF ARMED CONFLICT: CHALLENGES AHEAD, *supra*, at 367; Frank L. Wiswall, Jr., *Neutrality, the Rights of Shipping and the Use of Force in the Persian Gulf*, 31 VA. J. INT'L L. 619 (1991).

113. CASTREN, *supra* note 112, at 427.

114. Janis, *supra* note 112, at 148 (citing NEILL H. ALFORD, JR., MODERN ECONOMIC WARFARE (LAW AND THE NAVAL PARTICIPANT) 326 (U.S. Naval War Coll. Int'l Law Studies vol. 56, 1963)). See also Norton, *supra* note 112, at 249 (citing Richard R. Baxter, *Humanitarian Law or Humanitarian Politics? The 1974 Conference on Humanitarian Law*, 16 HARV. INT'L L.J. 1, 2 (1975) (noting that neutrality has had a "juridical half-life" since World War II)).

the law of neutrality will be minimal, is an argument that the Charter has ended the rights and duties of the old law of neutrality.¹¹⁵ Another argument is that since the Charter has outlawed war,¹¹⁶ there can be no state of war, and therefore there is no need for a law of neutrality.¹¹⁷ This position, however, should be considered in light of the 1928 Pact of Paris, outlawing aggressive war.¹¹⁸ World War II began a decade later.

Many others, reflecting state practice and Charter era claims, maintain that the law of neutrality continues to exist. The *San Remo Manual* recognizes maritime neutrality.¹¹⁹ The 1992-96 International Law Association Committee on Maritime Neutrality studied neutrality, and the 1998 International Law Association (ILA) conference accepted the Committee's final report.¹²⁰ Individual researchers assert that neutrality remains a valid concept, albeit modified by Charter law and other considerations.¹²¹

115. Janis, *supra* note 112, at 148 (citing C.G. Fenwick, *Is Neutrality Still a Term of Present Law?*, 63 AM. J. INT'L L. 102 (1969)).

116. Cf. U.N. CHARTER pmb., arts. 2(3)-(4). Although attempts to include economic coercion as use of force within the meaning of Article 2(4) failed at the Charter drafting conference, these arguments still surface, particularly from developing and communist countries. See generally GOODRICH ET AL., *supra* note 83, at 19-25, 41-55; THE CHARTER OF THE UNITED NATIONS: A COMMENTARY, *supra* note 83, at 45-48, 97-128; Aldrich, *supra* note 1, at 241.

117. GABRIEL, *supra* note 112, at 69. See also Ørvik, *supra* note 112, at 251-56.

118. Treaty Providing for Renunciation of War as an Instrument of National Policy, Aug. 27, 1928, arts. 1-2, 46 Stat. 2343, 2345-46, 94 L.N.T.S. 57, 63 [hereinafter Pact of Paris]. See also *infra* notes 124-25 and accompanying text.

119. INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL ON INTERNATIONAL LAW APPLICABLE TO ARMED CONFLICTS AT SEA paras. 13(d), 14-26, 29-32, 34-36, 67-71, 74-75, 86-88, 92-94, 99, 106, 109, 111, 113-16, 118-20, 122-24, 126-27, 130, 132-34, 146-58 (Louise Doswald-Beck ed., 1995) [hereinafter INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL].

120. *Neutrality and Naval Warfare*, in INT'L LAW ASS'N, REPORT OF THE SIXTY-FIFTH CONFERENCE: CAIRO, EGYPT 163 (1993); *Neutrality and Naval Warfare*, in INT'L LAW ASS'N, REPORT OF THE SIXTY-SIXTH CONFERENCE: BUENOS AIRES, ARGENTINA 570 (1994); *Neutrality and Naval Warfare*, in INT'L LAW ASS'N, REPORT OF THE SIXTY-SEVENTH CONFERENCE: HELSINKI, FINLAND 367 (1996); *Final Report: Helsinki Principles on the Law of Maritime Neutrality*, in INT'L LAW ASS'N, REPORT OF THE SIXTY-EIGHTH CONFERENCE HELD AT TAIPEI, TAIWAN, REPUBLIC OF CHINA 496 (1998) [hereinafter *Helsinki Principles*]. See also Walker, *Maritime Neutrality*, *supra* note 108 (critiquing the Cairo report).

121. E.g., COLOMBOS, *supra* note 44, § 759; MCDUGAL & FELICIANO, *supra* note 112, at 197-436; 2 O'CONNELL, *supra* note 44, at 1141-42; John Astley III & Michael N. Schmitt, *The Law of the Sea and Naval Operations*, 42 AIR FORCE L. REV. 119, 146-47 (1997); Bothe, *Neutrality at Sea*, *supra* note 112, at 205; Thomas A. Clingan, Jr., *Submarine Mines in International Law*, in THE LAW OF NAVAL OPERATIONS, *supra* note 44, at 351, 352 (noting that the argument that neutrality no longer exists is specious); Gioia & Ronzitti, *supra* note 112, at 223; Lowe, *supra* note 44, at 134-38; McNeill, *supra* note 112, at 642-43; Natalino Ronzitti, *The Crisis of the Traditional Law Regulating International Armed Conflicts at Sea and the Need for Its Revision*, in THE LAW OF NAVAL WARFARE: A COLLECTION OF

Like reports of Mark Twain's passing, accounts of neutrality's demise in the Charter era have been greatly exaggerated, as the ensuing analysis demonstrates.

A. Introduction

Jessup, his associates and others traced the law of neutrality before World War II and the Charter era;¹²² more analysis is needlessly repetitive. Two groups' research during 1919-39 is noteworthy, however, particularly for their collection and summary of state practice. They had considerable impact on state practice as World War II widened but before it became global in 1941 with the entry into the war of the United States and other Western countries. Part III.A.1 traces those developments and projections into the Charter era—1945 to the present. Part III.A.2 discusses the law of neutrality in the context of the right of self-defense and other principles, such as reprisal and retorsion. Part III.A.3 analyzes the law of neutrality and actions that may be taken pursuant to the Charter. Part III.A.4 sketches the law of treaties and sources of law that may affect the law of neutrality and is followed by Conclusions in Part III.A.5. Part III.B discusses the principles of the law of neutrality in land, sea, air, and space warfare. Its thrust is in the context of warfare in the traditional sense, as distinguished from non-international conflicts, low-intensity conflicts, or situations involving non-war situations, such as individual intruding hackers.¹²³

1. Neutrality, 1928-41, and in the Charter Era; "Non-Belligerency"

The Pact of Paris was concluded in 1928. Subject to later agreements, including the Charter, the Pact remains in force today.¹²⁴ The understanding concerning the inherent right of

AGREEMENTS AND DOCUMENTS WITH COMMENTARIES 1, 6-12 (N. Ronzitti ed., 1988); Williams, *supra* note 112, at 47-48; Wiswall, *supra* note 112, at 619. Even commentators arguing that the force of the law of neutrality has been greatly diminished do not say it has disappeared in the Charter era. *E.g.*, ALFORD, *supra* note 114, at 326; Janis, *supra* note 112, at 153; Norton, *supra* note 112, at 311.

122. JESSUP, *supra* note 109; JESSUP & DEÁK, *supra* note 110; W. ALISON PHILLIPS & ARTHUR H. REEDE, NEUTRALITY: THE NAPOLEONIC PERIOD (1936); EDGAR TURLINGTON, NEUTRALITY: ITS HISTORY, ECONOMICS AND LAW (1936).

123. *Cf.* NWP 1-14M ANNOTATED, *supra* note 37, para. 7.1, at 7-2. For an analysis of LIC issues, see generally LEGAL AND MORAL CONSTRAINTS ON LOW-INTENSITY CONFLICT, *supra* note 41. See also *supra* notes 4, 36, 41 and accompanying text.

124. U.N. CHARTER art. 103; Pact of Paris, *supra* note 118; THE CHARTER OF THE UNITED NATIONS: A COMMENTARY, *supra* note 83, at 1116-25; GOODRICH ET AL., *supra* note 83, at 614-17; U.S. DEP'T OF STATE, TREATIES IN FORCE 447 (1999).

self-defense under the Pact applies in the Charter era and can be claimed today, subject to principles of necessity, proportionality, and, in the case of anticipatory self-defense, the principle of a situation admitting of no other alternative.¹²⁵ Neutrality principles also carried forward into the Charter era, subject to modification by Charter law and the processes of change in the law Jessup foresaw in 1936.¹²⁶

The Pact of Paris did not address the neutrality issue, although other agreements contemporaneous with it stated the term without defining it,¹²⁷ including the Havana Convention on Maritime Neutrality (to which eight American countries were parties),¹²⁸ the 1938 five-state Nordic Rules of Neutrality (which was not a formal treaty but published in the *League of Nations Treaty Series (L.N.T.S.)*,¹²⁹ and the 1939 General Declaration of Neutrality of the American Republics.¹³⁰

A 1934 ILA conference approved the *Budapest Articles of Interpretation* (Articles) of the Pact of Paris, which provide in part:

125. See generally Walker, *Maritime Neutrality*, *supra* note 108, at 142-44. See also *infra* notes 168-74 and accompanying text.

126. U.N. CHARTER art. 103. See also *supra* note 124 and accompanying text.

127. E.g., Convention Relative to Treatment of Prisoners of War, July 27, 1929, arts. 69-70, 72-73, 77, 47 Stat. 2021, 2053-57, 118 L.N.T.S. 343, 385-86, superseded by Convention Relative to Treatment of Prisoners of War, Aug. 12, 1949, arts. 4(B)(2), 10, 134, 6 U.S.T. 3316, 3320-22, 3326, 3420, 75 U.N.T.S. 135, 238-40, 144, 238 [hereinafter Third Convention]. The 1929 Convention also referred to "non-belligerents." See also 3 JEAN S. PICTET, *THE GENEVA CONVENTIONS OF 12 AUGUST 1949* at 69-72 (1960).

128. Convention on Maritime Neutrality, Feb. 28, 1928, 47 Stat. 1989, 135 L.N.T.S. 187 [hereinafter Maritime Neutrality Convention]. The United States is party to it and to the Convention Regarding Rights of Neutrals at Sea, July 22, 1854, in force among Nicaragua, the former USSR, and the United States. U.S. DEP'T OF STATE, *supra* note 124, at 448, 450-51.

129. Insofar as the Nordic Neutrality Rules, *infra* note 130, parallel the customary norms of other agreements, they reflect general international law. Insofar as they elaborate detailed provisions, they specify regional custom for Scandinavia. Ove Bring, *Commentary*, in *THE LAW OF NAVAL WARFARE: A COLLECTION OF AGREEMENTS AND DOCUMENTS WITH COMMENTARIES*, *supra* note 121, at 839, 841, 843.

130. General Declaration of Neutrality of the American Republics, Oct. 3, 1939, reprinted in 3 Bevens 604 [hereinafter General Declaration] (among 21 Western Hemisphere countries including the United States); Declaration for the Purpose of Establishing Similar Rules of Neutrality, May 27, 1938, 188 L.N.T.S. 294 [hereinafter Nordic Neutrality Rules], among Denmark, Finland, Iceland, Norway and Sweden. The twenty-one Western Hemisphere states also signed the Declaration of Panama, Oct. 3, 1939, § 1, 3 Bevens 608, 609, which established a 200-mile belt off the Americas that would be "free from the commission of any hostile act by any non-American belligerent nation, whether such act be attempted or made from land, sea or air" except waters off European colonies and possessions.

- (1) A signatory State cannot, by denunciation or non-observance of the Pact, release itself from its obligations thereunder.
- (2) A signatory State which threatens to resort to armed force for the solution of an international dispute or conflict is guilty of a violation of the Pact.
- (3) A signatory State which aids a violating State thereby itself violates the Pact.
- (4) In the event of a violation of the Pact by a resort to armed force or war by one signatory State against another, the other States may, without thereby committing a breach of the Pact or of any rule of International Law, do all or any of the following things:
 - (a) Refuse to admit the exercise by the State violating the Pact of belligerent rights, such as visit and search, blockade, etc.;
 - (b) Decline to observe towards the State violating the Pact the duties prescribed by International Law, apart from the Pact, for a neutral in relation to a belligerent;
 - (c) Supply the State attacked with financial or material assistance, including munitions of war;
 - (d) Assist with armed forces the State attacked.
- (5) The signatory States are not entitled to recognise as acquired de jure any territorial or other advantages acquired de facto by means of a violation of the Pact.
- (6) A violating State is liable to pay compensation for all damage caused by a violation of the Pact to any signatory State or to its nationals.
- (7) The Pact does not affect such humanitarian obligations as are contained in general treaties¹³¹

Although some states¹³² and commentators¹³³ said when the Articles were approved that no state had adopted them as policy, in 1941 the U.S. Congress heard former Secretary of State Henry L. Stimson's testimony on the pending Lend-Lease Bill; he interpreted the Articles as an authoritative statement of the law.¹³⁴ He echoed Secretary of State Cordell Hull's and Attorney General Robert H. Jackson's views, that since Axis states had

131. *Budapest Articles of Interpretation: Final Text* arts. 1-7, in INT'L LAW ASS'N, REPORT OF THE 38TH CONFERENCE 67-68 (1935).

132. *E.g.*, Lord Chancellor Viscount Sankey, 95 PARL. DEB., H.L. (5th ser.) cols. 1007, 1043. Secretary of State Henry L. Stimson took the opposite view. See Henry L. Stimson, *The Pact of Paris: Three Years of Development*, 11 FOREIGN AFF., Oct. 1932, at i, vii-viii.

133. JESSUP, *supra* note 109, at 121-23; H. Lauterpacht, *The Pact of Paris and the Budapest Articles of Interpretation*, 20 TRANSACTIONS GROTIUS SOC'Y 178 (1935).

134. Arrangement Relating to Naval and Air Bases, Sept. 2, 1940, 54 Stat. 2405, 203 L.N.T.S. 201 (citing *Budapest Articles of Interpretation: Final Text*, *supra* note 131); U.S. Secretary of War Stimson Testimony, Jan. 29, 1941, *Hearings Before the House Committee on Foreign Affairs on H.R. 1776 Regarding the Lend-Lease Bill*, 77th Cong., 1st Sess., 89-90 (1941) [hereinafter *Hearings*]; *Rights and Duties of States in Case of Aggression*, 33 AM J. INT'L L. 819 (Supp. 1939) [hereinafter *Harvard Draft Aggression Convention*]; Stimson, *supra* note 132, at vii-viii (expressing this view in 1932); Quincy Wright, *The Transfer of Destroyers to Great Britain*, 34 AM. J. INT'L L. 680, 685-89 (1940) (making an analogous argument after the destroyers-for-bases deal).

breached the Pact of Paris, the United States could resort to self-defense.¹³⁵

Besides self-defense, under the Articles states can adopt non-belligerency status and decline to observe neutrality toward a Pact violator. States can supply a state that is a target of a Pact violator with "financial or material assistance, including munitions of war."¹³⁶ Put differently, Pact parties could engage in reprisals involving force or other modalities, or retorsions. In the Charter era, reprisals involving use of force are inadmissible.¹³⁷ In addition, assisting victims of aggression or armed attacks was styled as non-belligerency, an intermediate step between neutrality and belligerency.

Congress, by enacting¹³⁸ Lend-Lease in this context, can be said to have stated U.S. practice at that time,¹³⁹ and approved the Articles as part of that practice. When the Allies and other neutrals accepted Lend-Lease through bilateral agreements, they ratified and accepted this practice.¹⁴⁰ The 1940 U.K.-U.S.

135. U.S. Secretary of State Cordell Hull Testimony, Jan. 15, 1941, in *Hearings*, *supra* note 134, at 9-10; Robert H. Jackson, *Address to the Inter-American Bar Association*, 35 AM. J. INT'L L. 349 (1941).

136. *Budapest Articles of Interpretation: Final Text*, *supra* note 131, arts. 4(b)-(d), at 67.

137. See *infra* notes 175-76 and accompanying text.

138. Lend-Lease Act, ch. 11, 55 Stat. 31 (1941).

139. Vienna Convention, *supra* note 44, pmbl., art. 38, 1159 U.N.T.S. at 333, 341; RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 102(3) & cmt. f; BROWNLIE, *supra* note 44, at 13-14 (citing *The Scotia*, 81 U.S. (5 Wall.) 170, 181-82 (1872)); 1 OPPENHEIM, *supra* note 44, § 10, at 15. Most Lend-Lease agreements were not formalized until after the United States was at war; at least two were in force between the United States and countries at war with Axis states before then. Lend-Lease Agreement, Aug. 9, 1941, Neth.-U.S., 10 Bevans 140; Lend Lease Agreement, Nov. 21, 1941, Ice.-U.S., 58 Stat. 1455. Informal arrangements had undoubtedly already begun, for example with Great Britain. See Preliminary Agreement, Feb. 23, 1942, U.K.-U.S., arts. 1-2, 56 Stat. 1433-34. See also George K. Walker, *Anticipatory Collective Self-Defense in the Charter Era: What the Treaties Have Said*, in THE LAW OF MILITARY OPERATIONS: LIBER AMICORUM PROFESSOR JACK GRUNAWALT 365, 379 (Michael N. Schmitt ed., Naval War Coll. Int'l Law Studies vol. 72, 1998) [hereinafter Walker, in THE LAW OF MILITARY OPERATIONS]; George K. Walker, *Anticipating Collective Self-Defense in the Charter Era: What the Treaties Have Said*, 31 CORNELL INT'L L.J. 321, 347 n.171 (1998) [hereinafter Walker, 31 CORNELL INT'L L.J.] (referring to ROBERT H. SHERWOOD, ROOSEVELT AND HOPKINS: AN INTIMATE HISTORY 308, 310-11 (rev. ed. 1950) and an informal U.K.-U.S. defense arrangement).

140. Vienna Convention, *supra* note 44, pmbl., art. 38, 1155 U.N.T.S. at 333, 341; RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 102(3) & cmt. f.; BROWNLIE, *supra* note 44, at 5; 1 OPPENHEIM, *supra* note 44, § 10, at 28; 2 OPPENHEIM, *supra* note 112, § 292aa, at 639 (stating that U.S. practice resurrected older custom that had not died out). The United States negotiated Lend-Lease treaties with states not at war with the Axis before it went to war. To the extent these treaties benefited the United States after it was at war, and before the other state declared war, the other state became a non-belligerent. Examples of non-belligerent provisions included reciprocal commodity pledges and pledges to supply the United States with "defense articles, strategic or critical materials, or defense

destroyers-for-bases agreements¹⁴¹ were also examples of the United States' assuming non-belligerent status.¹⁴² These, however, were only bilateral arrangements, although the general U.S. pro-Allied stance was then apparent.¹⁴³

The United States was not the only country to assume a non-belligerency posture during 1939-45. For example, neutral Norway's November 1939 charter arrangement with Britain for 1.5 million tons of tankers¹⁴⁴ favored the United Kingdom against the Axis. Others officially or unofficially adopted policies tending to favor one side or the other, sometimes before becoming belligerents (for example, Italy, which supported Germany, or American states participating in U.S. Lend-Lease agreements before declaring war)¹⁴⁵ and in other cases staying out of the war but keeping non-belligerent status (such as Spain).¹⁴⁶ This World War II practice supports recognizing non-belligerency as an intermediate position between neutrality and belligerency.

The ILA was not the only group of scholars in the interwar years with a view that there could be gradations or stages between belligerency and neutrality. The 1939 Harvard Draft Aggression Convention differentiated among aggressors,

information." For an example of non-belligerent provisions, see Lend-Lease Agreement, Oct. 1, 1941, Brazil-U.S., 5 Bevens 905, 906-07. The United States had Lend-Lease treaties with 36 nations, including the USSR. See 13 Bevens 64. As *Bevens* indicates, some treaties were not published and were perhaps not available for consideration as evidence of practice until 1968-76 when the thirteen volumes of *Bevens* were published.

141. Arrangement Relating to Naval and Air Bases, *supra* note 134, supplemented by Protocol Concerning Defense of Newfoundland, Mar. 27, 1941, U.K.-U.S., 55 Stat. 1560, 204 L.N.T.S. 70. See also BOWETT, *supra* note 112, at 166 (stating that Lend-Lease and the destroyers-for-bases deal violated international law). Viewed in the context of trends, particularly the law of self-defense as then stated, Bowett's view is not the law now. He may have written differently if all Lend-Lease treaties had been published in 1958 when *Self-Defense in International Law*, *supra* note 112, was published. See *supra* note 140.

142. MCDUGAL & FELICIANO, *supra* note 112, at 425.

143. ØRVIK, *supra* note 112, at 195-215.

144. *Id.* at 587.

145. See *supra* note 140 and accompanying text.

146. CASTREN, *supra* note 112, at 450-51 (listing Bulgaria, China, Hungary, Italy, Portugal, Romania, Spain, Turkey, and the United States as pursuing these policies, without stating which side Spain favored). Although Francisco Franco's Spain played both sides, throughout the war it supported the Axis, primarily Germany, providing ports for submarine support, infrared, radar and sonar listening stations, the Blue Division for the USSR front, civilian labor in Germany, war material, credits and other services. These countries signed a Treaty of Friendship on March 31, 1939 and a Secret Protocol on February 12, 1943, which was not implemented. U.S. DEPT OF STATE, *THE SPANISH GOVERNMENT AND THE AXIS* (1946); PAUL PRESTON, *FRANCO: A BIOGRAPHY* 323-562 (1993). But see Antonio Marquina, *The Spanish Neutrality During the Second World War*, 14 AM. U. INT'L L. REV. 171 (1998) (stating that Spain lost neutrality status by its cooperation with Germany and that Italy later joined the Axis as a cobelligerent).

defending and co-defending states (which were entitled to all rights of self-defense), and “supporting States” (which were entitled to discriminate against an aggressor by other than armed force). A supporting state was entitled to “rights which, if it were neutral, it would have against a belligerent.” An aggressor retained its duties to those entitled to neutrality status. Other states would have had these rights under Articles 12 and 13 of the Convention:

A State which is not an aggressor, a defending State, a co-defending State, or a supporting State, does not, in its relations with the aggressor, have the duties which, if it were neutral, it would have to a belligerent, but, against the aggressor, it has the rights which, if it were a neutral, it would have against a belligerent.

....

Subject to . . . Article 7 and 8, a State which is not an aggressor, a defending State, a co-defending State, or a supporting State, has, in its relations with a defending State, a co-defending State or a supporting State, the duties which, if it were neutral, it would have to a belligerent; and has against those States the rights which, if it were a neutral, it would have against a belligerent.¹⁴⁷

The *Comment* to the “supporting state” definition elaborates on the term in the Draft Convention:

“[S]upporting State” is used in a special way. A “supporting State” might give to a defending State even greater assistance than was given by a “co-defending State” but it would do so without use of armed force.

The action taken by a supporting State to assist a defending State would take the form of some kind of discrimination against the aggressor or in favor of the defending State. The State may take such action and assume such status for a variety of reasons but presumably its reasons will include a desire to deter, restrain or even perhaps to punish an aggressor. The discriminatory action may take the form of economic or financial embargoes directed against the aggressor. It might be restricted to a withdrawal of diplomatic and consular representatives from that State or to participation in the determination that the State violated its obligation not to resort to force. It might not take the form of any measures directly *against* an aggressor but might rather be in the form of aid—financial, economic or otherwise—to the defending State.¹⁴⁸

Recitations of state and League of Nations practices demonstrate that there was support among states, great and small, for the form of non-belligerency not involving direct use of force. In effect, the Draft Convention’s supporting state definition comes

147. *Harvard Draft Aggression Convention*, *supra* note 134, arts. 12-13, at 830.

148 *Id.* at 879-80. *See also id.* at 902. Bowett stated that these Convention principles were *de lege ferenda*. BOWETT, *supra* note 112, at 161.

close to the armed neutralities of the seventeenth and eighteenth centuries and the Napoleonic Wars, when neutrals cooperated to get cargoes through.¹⁴⁹ This was also almost precisely the United States' circumstance in the destroyers-bases deal,¹⁵⁰ its North Atlantic convoy operations before entry into World War II,¹⁵¹ and Lend-Lease.¹⁵² The U.S. posture was the same during the Tanker War when it convoyed U.S.-flag merchantmen to and from Kuwait.¹⁵³ The same was true for states other than belligerents

149. JESSUP, *supra* note 109, at 7, 160-62, 181 (referring to JESSUP & DEAK, *supra* note 110, at 44, 109, 117, 160); PHILLIPS & REEDE, *supra* note 122, at 91-111. The United States was among the maritime powers recognizing the 1780 armed neutrality; the neutrality of 1800 collapsed with the defeat of the Danish fleet. COLOMBOS, *supra* note 44, §§ 700-01; 2 OPPENHEIM, *supra* note 112, § 290. U.S. bilateral treaties now no longer in force restated these principles during the 19th century. *E.g.*, Treaty of Peace, Friendship, Commerce and Navigation, Dec. 12, 1828, Braz.-U.S., art. 22, 8 Stat. 390, 395; U.S. DEP'T OF STATE, *supra* note 124, at 29.

150. Wright, *supra* note 134, at 689 (citing the Draft Convention for legitimacy of the destroyers-for-bases deal as discussed *supra* note 141 and in the accompanying text).

151. See generally 1 SAMUEL ELIOT MORISON, HISTORY OF UNITED STATES NAVAL OPERATIONS DURING WORLD WAR II: THE BATTLE OF THE ATLANTIC, SEPTEMBER 1939-MAY 1943 at 56-113 (1947).

152. See *supra* notes 134-39 and accompanying text.

153. See generally SHAHRAM CHUBIN & CHARLES TRIPP, IRAN AND IRAQ AT WAR 215 (1988); 2 ANTHONY H. CORDESMAN & ABRAHAM R. WAGNER, THE LESSONS OF MODERN WAR 290-92, 298-300 (1990); DILIP HIRO, THE LONGEST WAR: THE IRAN-IRAQ MILITARY CONFLICT 187 (1991); TAMARA MOSER MELIA, "DAMN THE TORPEDOES": A SHORT HISTORY OF U.S. NAVAL MINE COUNTERMEASURES, 1777-1991 at 120-21 (1991); Elizabeth Gamlen & Paul Rogers, *U.S. Reflagging of Kuwaiti Tankers*, in THE IRAN-IRAQ WAR: THE POLITICS OF AGGRESSION 123, 141 (Farhang Rajaei ed., 1993); Walter Isaacson, *Into Rough Water*, TIME, Aug. 10, 1987, at 8; Maxwell Orme Johnson, *The Role of U.S. Military Force in the Gulf War*, in THE PERSIAN GULF WAR: LESSONS FOR STRATEGY, LAW, AND DIPLOMACY 127, 131-32 (Christopher C. Joyner ed., 1990); Thomas L. McNaugher, *Walking Tightropes in the Gulf*, in THE IRAN-IRAQ WAR: IMPACT AND IMPLICATIONS 171, 173-74 (Efrain Karsh ed., 1989); McNeill, *supra* note 112, at 635, 638; Samuel Pyatt Menefee, *Commentary*, in THE IRAN-IRAQ WAR (1980-1988) AND THE LAW OF NAVAL WARFARE 99, 121-23, 126-27 (Andrea de Guttry & Natalino Ronzitti eds., 1993); Ronald O'Rourke, *Gulf Ops*, U.S. NAVAL INST. PROC., May 1989, at 43; Ronald O'Rourke, *The Tanker War*, U.S. NAVAL INST. PROC., May 1988, at 33; David L. Peace, *Major Maritime Events in the Persian Gulf War*, 1988 AM. SOC. INT'L L. PROC. 146, 149; David L. Peace, *Major Maritime Events in the Persian Gulf War Between 1984 and 1991: A Juridical Analysis*, 31 VA. J. INT'L L. 545, 554 (1991); Frank C. Seitz, Jr., S.S. Bridgeton: *The First Convoy*, U.S. NAVAL INST. PROC., May 1988, at 52; Wolff Heintschel von Heinegg, *Visit, Search, Diversion and Capture in Naval Warfare: Part II, Developments Since 1945*, 1992 CAN. Y.B. INT'L L. 89, 104; U.S. Secretary of Defense Frank Carlucci Statement, DEP'T ST. BULL., July 1988, at 61 [hereinafter Carlucci]; U.S. Assistant Secretary of State for Near Eastern and South Asian Affairs Statement Before the Subcommittee on Europe and the Middle East of the U.S. House Foreign Affairs Committee, DEP'T ST. BULL., July 1987, at 59, 60; U.S. Undersecretary of State for Political Affairs Michael H. Armacost's Statement Before the Senate Foreign Relations Committee, *U.S. Policy in the Persian Gulf and Kuwaiti Reflagging*, DEP'T ST. BULL., Aug. 1987, at 78; Rudiger Wolfrum, *Reflagging and Escort Operations in the Persian Gulf: An International Law*

that accompanied or escorted merchantmen flying flags of states other than the belligerents, upon request of those ships, regardless of who was the aggressor, during the Tanker War, which was the maritime aspect of the 1980-88 Iran-Iraq conflict.¹⁵⁴

At least one commentator says the Articles' principle of aid against an aggressor, or its correlative of supporting state action under the Draft Convention, applies in the Charter era.¹⁵⁵ Most recent commentators, however, say there is no intermediate position between belligerency and neutrality—that is, there is no legal foundation, or perhaps need, for non-belligerency. Unlike the Harvard Draft Aggression Convention view, non-belligerents can claim no rights from that status.¹⁵⁶ The problem, however, may lie more in defining neutrality, according to Tucker. If neutrality is defined as non-participation in hostilities (as a belligerent or non-belligerent), a nonparticipant neutral incurs belligerent responses only when, and to the extent, favoritism is shown. Belligerents can respond by non-force reprisals or retorsions.¹⁵⁷ Assuming the United States and others connected with Gulf commerce during the Tanker War favored one belligerent over the other, (for example, Iraq over Iran), Iran could impose proportional non-force reprisals after giving due notice

Perspective, 30 VA. J. INT'L L. 387, 397-98 (1989). Chubin & Tripp, *supra*, err in christening *S.S. Bridgeton* as a commissioned U.S. Navy warship; it was a merchant tanker.

154. See generally U.K. Foreign Affairs Committee, Second Report: Current UK Policy Towards the Iran-Iraq Conflict, June 1988, §§ 6.11-6.14, reprinted in THE IRAN-IRAQ WAR (1980-1988) AND THE LAW OF NAVAL WARFARE, *supra* note 153, at 291-98; 2 CORDESMAN & WAGNER, *supra* note 153, at 234; Carlucci, *supra* note 153; Norman Cigar, *The Soviet Navy in the Persian Gulf: Naval Diplomacy in a Combat Zone*, NAVAL WAR C. REV., Spring 1989, at 56; A.V. Lowe, *Commentary*, in THE IRAN-IRAQ WAR (1980-1988) AND THE LAW OF NAVAL WARFARE, *supra* note 153, at 241, 248; Jean Mallein, *Commentary*, in THE IRAN-IRAQ WAR (1980-1988) AND THE LAW OF NAVAL WARFARE, *supra* note 153, at 389, 391 (citing a written answer by the French Secretary of State for Maritime Affairs, Question 36188, J.O., Mar. 21, 1988, at 1301, translated and reprinted in THE IRAN-IRAQ WAR (1980-1988) AND THE LAW OF NAVAL WARFARE, *supra* note 153, at 408); Statement by the [Italian] Minister for the Merchant Navy Before the IX Permanent Commission (Transport, Posts and Telecommunications), Sept. 10, 1987, translated and reprinted in THE IRAN-IRAQ WAR (1980-1988) AND THE LAW OF NAVAL WARFARE, *supra* note 153, at 446-47.

155. CASTREN, *supra* note 112, at 434, 651.

156. *Helsinki Principles*, *supra* note 120, at 497; CASTREN, *supra* note 112, at 452; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.1; TUCKER, *supra* note 112, at 199 n.5 (citing STONE, *supra* note 112, at 383); Deák, *supra* note 112, at 153; Josef Kunz, *Neutrality and the European War 1939-1940*, 39 MICH. L. REV. 719, 747-54 (1941). The *San Remo Manual* reports the debate but defines neutrals as states not party to a conflict. INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, § 13(d) & cmts. 13.11-13.14.

157. TUCKER, *supra* note 112, at 199 n.5. See also *infra* notes 175-76 and accompanying text.

and opportunity for correction necessary in the situation. Iraq could do the same, and could employ retorsions, too.¹⁵⁸ Iran could not, even under this theory of neutrality, move straightaway, without notice, to forcible response, such as attacks on and destruction of neutral shipping, unless those vessels would have been considered as aiding the enemy under LOAC principles.¹⁵⁹

Besides the U.S. position before entry into World War II and its stance during the Iran-Iraq war, nearly every conflict of reasonable duration during the Charter era has involved situations of non-belligerency in maritime warfare. This was true for the Korean War,¹⁶⁰ with its U.N. law overtones. It was also true for the Arab-Israeli conflicts.¹⁶¹ The India-Pakistan conflicts were less clear on the point.¹⁶² The United States materially assisted the United Kingdom in the Falklands/Malvinas war, supplying fuel and intelligence; the United States and other countries, through economic sanctions, also indirectly assisted the United Kingdom.¹⁶³ Moreover, if one takes the view that negative preferences for one belligerent over another, including cutting off arms supplies to one side as opposed to aiding one belligerent while embargoing the other, amounts to non-belligerency, during the Tanker War many states had non-belligerent status, including France, the USSR, and most Arab states. The United Kingdom, with its 1987 export credit

158. See *infra* notes 175-76 and accompanying text.

159. Unless a neutral merchantman engages in conduct amounting to aiding an enemy, these attacks would violate U.N. Charter, art. 2(4). Assisting an enemy includes, for example, acting as an auxiliary to enemy armed forces by carrying troops or replenishing warships; being incorporated into an enemy intelligence-gathering system; sailing under an enemy warship or aircraft convoy; and refusing orders to stop or actively resisting visit, search or capture. INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 60; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.5.2. See also *infra* notes 373-78 and accompanying text.

160. E.g., MCDUGAL & FELICIANO, *supra* note 112, at 492, 499 (indirect aid to North Korea, Peoples Republic of China, the subjects of Security Council and General Assembly resolutions); Norton, *supra* note 112, at 263-67, 294.

161. Norton, *supra* note 112, at 257-62, 295-97, 298-301, 304-05; Ronzitti, *supra* note 121, at 4.

162. Norton, *supra* note 112, at 262-63. The short duration of the conflicts was a factor.

163. E.g., E.C. Council Regulation Suspending Imports of All Products Originating in Argentina, Apr. 16, 1982 O.J. (L 102) 1; E.C.S.C. Council Decision 82/228/ECSC Suspending Imports of All Products Originating in Argentina, Apr. 16, 1982, 21 I.L.M. 548, 549-50 (1982); United States Statements Concerning Assistance to and Sales to Argentina, 21 I.L.M. 682, 682-84 (1982); 3 ANTHONY H. CORDESMAN & ABRAHAM R. WAGNER, THE LESSONS OF MODERN WAR 260-63, 270, 280-81, 331-32 (1990).

agreement with Iraq, despite asserting its evenhanded strict neutrality, might fall into this category.¹⁶⁴

Despite the commentators' position, the record of armed conflicts since World War II has been that if the confrontation is of any length, states may declare and practice strict neutrality, declare neutrality and act as non-belligerents, or do nothing, perhaps ignoring (or being unaware of) the situation.¹⁶⁵ The law of neutrality has been applied in the Charter era, perhaps not consistently; claims persist for a right to act as a non-belligerent, that is, favoring one or more belligerents at the expense of others.

Is non-belligerency a violation of the law of neutrality, or a status without legal standing between the traditional roles of neutrality and belligerency? The response today lies not in the traditional analyses, stretching back centuries, but in the developing of norms under the Charter. The advent of the Charter modified the old principles of neutrality recited in treaties.¹⁶⁶ The same is true for non-belligerency, where an overlay of Charter law may help define these situations and can give them legitimacy, not as an exception to traditional rules of neutrality (whether stated in treaties or custom) but in the application and interpretation of the Charter.¹⁶⁷

164. Gioia & Ronzitti, *supra* note 112, at 226-31.

165. For other conflicts through 1975, see Norton, *supra* note 112, at 268-75 (noting Vietnam and twenty-seven civil wars). See also CASTREN, *supra* note 112, at 452.

166. The Charter prevails over older neutrality treaty obligations where they conflict with Charter obligations. Deák, *supra* note 112, at 143 (citing U.N. CHARTER art. 103). See also *supra* note 124 and accompanying text. The later in time rule recites the same principle for newer agreements to assist states that are victims of aggression. Vienna Convention, *supra* note 44, pmb., art. 30, 1155 U.N.T.S. at 332, 339. See also RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 323; SINCLAIR, *supra* note 44, at 94-98, 184-85. To the extent that the Charter and action pursuant to it is customary law or perhaps *jus cogens*, later custom or *jus cogens* might trump inconsistent earlier customary obligations or an older treaty. STATUTE OF THE INTERNATIONAL COURT OF JUSTICE, JUNE 26, 1945, art. 38(1) [hereinafter I.C.J. STATUTE]; Vienna Convention, *supra* note 44, pmb., arts. 53, 64, 1155 U.N.T.S. at 332, 344, 347; RESTATEMENT (THIRD) OF FOREIGN RELATIONS §§ 102-03, 331, 338(2); BROWLIE, *supra* note 44, at 4, 19, 514-17 (content of *jus cogens* uncertain); T.O. ELIAS, THE MODERN LAW OF TREATIES 177-87 (1974); 1 OPPENHEIM, *supra* note 44, § 2; SINCLAIR, *supra* note 44, at 17-18, 218-26 (noting that the Convention principles are a progressive development); Eduardo Jimenez de Arechaga, *International Law in the Past Third of a Century*, 159 RECUEIL DES COURS DE L'ACADÉMIE DE DROIT INTERNATIONAL 1, 64-67 (1978); Mark Weisburd, *The Emptiness of the Concept of Jus Cogens, As Illustrated by the War in Bosnia-Herzegovina*, 17 MICH. J. INT'L L. 1 (1995).

167. See *infra* notes 187-218 and accompanying text.

2. Self-Defense; Reprisals; Retorsions; Other Considerations

Commentators and countries continue to debate whether anticipatory self-defense, which is a response with force that is necessary, proportional, and admitting of no other alternative, is permitted in the U.N. Charter era.¹⁶⁸ The Charter, Article 51,

168. Compare, e.g., Legality of the Threat or Use of Nuclear Weapons, 1996 I.C.J. 226, 245 (July 8) [hereinafter Nuclear Weapons]; Military and Paramilitary Activities (Nicar. v. U.S.), 1986 I.C.J. 14, 94 (June 27) [hereinafter Nicaragua Case]; 1996 I.C.J. at 347 (Schwebel, J., dissenting); STANIMAR A. ALEXANDROV, SELF-DEFENSE AGAINST THE USE OF FORCE IN INTERNATIONAL LAW 296 (1996); BOWETT, *supra* note 112, at 187-93; KELSEN, COLLECTIVE, *supra* note 112, at 27; TIMOTHY L.H. MCCORMACK, SELF-DEFENSE IN INTERNATIONAL LAW: THE ISRAELI RAID ON THE IRAQI NUCLEAR REACTOR 122-24, 238-39, 253-84, 302 (1996); MCDUGAL & FELICIANO, *supra* note 112, at 232-41; 1 OPPENHEIM, *supra* note 44, § 127; OSCAR SCHACHTER, INTERNATIONAL LAW IN THEORY AND PRACTICE 152-55 (1991); SHARP, *supra* note 1, at 33-48 (noting that the real debate is the scope of the anticipatory self-defense right and that responses must be proportional); JULIUS STONE, OF LAW AND NATIONS: BETWEEN POWER POLITICS AND HUMAN HOPES 3 (1974); ANN VAN WYNEN THOMAS & A.J. THOMAS, THE CONCEPT OF AGGRESSION IN INTERNATIONAL LAW 127 (1972); Aldrich, *supra* note 1, at 231, 248; Louis Rene Beres, *After the Scud Attacks: Israel, "Palestine," and Anticipatory Self-Defense*, 6 EMORY INT'L L. REV. 71, 75-77 (1992); George Bunn, *International Law and the Use of Force in Peacetime: Do U.S. Ships Have to Take the First Hit?*, NAVAL WAR C. REV., May-June 1986, at 69-70; Christopher Greenwood, *Remarks*, 1988 A. SOC. INT'L L. PROC. 158, 160-61; David K. Linnan, *Self-Defense, Necessity and U.N. Collective Security: United States and Other Views*, 1991 DUKE J. COMP. & INT'L L. 57, 65-84, 122; Lowe, *supra* note 44, at 127-30; James McHugh, *Forcible Self-Help in International Law*, NAVAL WAR C. REV., Nov.-Dec. 1972, at 61; Rein Mullerson & David J. Scheffer, *Legal Regulation of the Use of Force*, in BEYOND CONFRONTATION: INTERNATIONAL LAW FOR THE POST-COLD WAR ERA 93, 109-14 (Lori Fisler Damrosch et al. eds., 1995); John F. Murphy, *Commentary on Intervention to Combat Terrorism and Drug Trafficking*, in LORI FISLER DAMROSCH & DAVID J. SCHEFFER, LAW AND FORCE IN THE NEW INTERNATIONAL ORDER 241 (1991); W. Michael Reisman, *Allocating Competences to Use Coercion in the Post-Cold War World: Practices, Conditions, and Prospects*, in DAHROSCH & SCHEFFER, *supra*, at 25, 45; Horace B. Robertson, Jr., *Contemporary International Law: Relevant to Today's World?*, NAVAL WAR C. REV., Summer 1992, at 89, 101; Schmitt, *Bellum*, *supra* note 36, at 1071, 1080-83; Abraham D. Sofaer, *Sixth Annual Waldemar A. Solf Lecture: International Terrorism, the Law, and the National Defense*, 126 MILITARY L. REV. 89, 95 (1989); Robert F. Turner, *State Sovereignty, International Law, and the Use of Force in Countering Low-Intensity Aggression in the Modern World*, in LEGAL AND MORAL CONSTRAINTS ON LOW-INTENSITY CONFLICT, *supra* note 41, at 43, 62-80; Claude Humphrey Meredith Waldock, *The Regulation of Force by Individual States in International Law*, 81 RECUEIL DES COURS DE L'ACADÉMIE DE DROIT INTERNATIONAL 451, 496-99 (1952) (noting that anticipatory self-defense is permissible, as long as principles of necessity and proportionality are observed); Ruth Wedgwood, *Responding to Terrorism: The Strikes Against bin Laden*, 24 YALE J. INT'L L. 559, 566 (1999), with, e.g., BROWNIE, *supra* note 112, at 257-61, 275-78, 366-67; THE CHARTER OF THE UNITED NATIONS: A COMMENTARY, *supra* note 83, at 675-76; DINSTEIN, *supra* note 112, at 182-87, 190; LOUIS HENKIN, INTERNATIONAL LAW: POLITICS AND VALUES 121-22 (1995); PHILIP C. JESSUP, A MODERN LAW OF NATIONS 166-67 (1948); D.P. O'CONNELL, THE INFLUENCE OF LAW ON SEA POWER 83, 171 (1979); 2 OPPENHEIM, *supra* note 112, § 52aa, at 156; AHMED M. RIFAAT,

provides that states may exercise the "inherent right of individual and collective self-defense" against armed attack until the Security Council takes measures necessary to maintain international peace and security.¹⁶⁹ The rights of individual state and unit anticipatory self-defense also appear to carry forward into the Charter era because a right of anticipatory collective self-defense existed before the Charter went into force, and because mutual defense treaties since 1945 have continued to provide for anticipatory self-defense.¹⁷⁰ The right of self-defense also inheres

INTERNATIONAL AGGRESSION: A STUDY OF THE LEGAL CONCEPT, ITS DEVELOPMENT AND DEFINITION IN INTERNATIONAL LAW 126 (1979); Tom Farer, *Law and War*, in CYRIL E. BLACK & RICHARD A. FALK, 3 THE FUTURE OF THE INTERNATIONAL LEGAL ORDER 30, 36-37 (1971); Yuri M. Kolosov, *Limiting the Use of Force: Self-Defense, Terrorism, and Drug Trafficking*, in DAHROSCH & SCHEFFER, *supra*, at 232, 234; Josef L. Kunz, *Individual and Collective Self-Defense in Article 51 of the Charter of the United Nations*, 41 AM. J. INT'L L. 872, 878 (1947); Rainer Lagoni, *Remarks*, 1988 AM. SOC. INT'L L. PROC. 161, 162; Jules Lobel, *The Use of Force to Terrorist Attacks*, 24 YALE J. INT'L L. 537, 541 (1999); Robert W. Tucker, *The Interpretation of War Under Present International Law*, 4 INT'L L.Q. 11, 29-30 (1951). See also Robert W. Tucker, *Reprisals and Self-Defense*, 66 AM. J. INT'L L. 586 (1972) [hereinafter Tucker, *Reprisals*] (stating that states may respond only after being attacked). The former USSR generally subscribed to the restrictive view. Kolosov, *supra*, at 232; Mullerson & Scheffer, *supra*, at 93. U.S. and Israeli policy provides that states may respond in anticipatory self-defense, subject to necessity and proportionality principles, and admitting of no other alternative. NWP 1-14M ANNOTATED, *supra* note 37, paras. 4.3.2-4.3.2.1; Beres, *supra*, at 76-77. The Nicaragua Case, 1986 I.C.J. 14, declined to address the issue. The I.C.J. in Nuclear Weapons, 1996 I.C.J. 226, could not decide whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defense, when a State's very survival is at stake. 1996 I.C.J. at 266 (citing UN CHARTER art. 51). The I.C.J. in Legality of Use by a State of Nuclear Weapons in Armed Conflict, 1996 I.C.J. 66, 84 (July 8), declined to rule on the World Health Organization's request for an advisory opinion on the same subject. Judge Schwebel, dissenting in Nuclear Weapons, *supra*, wrote: "[F]ar from justifying the Court's inconclusiveness, contemporary events rather demonstrate the legality of the threat or use of nuclear weapons in extraordinary circumstances," citing *inter alia* a 1990-91 Gulf War situation. Nuclear Weapons, 1996 I.C.J. at 311, 323. For an analysis of the opinions and reactions of governments, see generally VED P. NANDA & DAVID KRIEGER, NUCLEAR WEAPONS AND THE WORLD COURT (1998); Charles J. Dunlap, Jr., *Taming Shiva: Applying International Law to Nuclear Operations*, 42 AIR FORCE L. REV. 157, 159-64 (1997) (presenting U.S. views); Michael J. Matheson, *The Opinions of the International Court of Justice on the Threat or Use of Nuclear Weapons*, 91 AM. J. INT'L L. 417 (1997); Symposium, *Nuclear Weapons, the World Court, and Global Security*, 7 TRANSNAT'L L. & CONTEMP. PROBS. 313 (1998).

169. U.N. CHARTER art. 51. See also Walker, 31 CORNELL INT'L L.J., *supra* note 139, at 351-59; Walker, in THE LAW OF MILITARY OPERATIONS, *supra* note 139, at 381-86 (discussing the drafting of Article 51). Aldrich states that the right of self-defense is not limited to responses to states' actions, citing the U.S. attack on the bin Laden facilities in Afghanistan. Aldrich, *supra* note 1, at 236. International reaction to this and the Sudan raid was mixed. See generally Lobel, *supra* note 168.

170. As with most issues in international law, this view is debatable. See generally Walker, in THE LAW OF MILITARY OPERATIONS, *supra* note 139; Walker, 31 CORNELL INT'L L.J., *supra* note 139.

to belligerents' warships while in neutral waters and neutral warships in belligerents' waters¹⁷¹ and on the high seas.

Moreover, principles of informal self-defense arrangements, which also continue in the Charter era,¹⁷² permit responses by states that are not parties to conflicts involving force, provided that other criteria, such as necessity and proportionality, are met.¹⁷³ One problem with informal self-defense arrangements, like the situation of aid to a country which is a target of aggression, is the stance the purported aggressor may take. If the purported aggressor says, rightly or wrongly, that the target is the aggressor, then the aiding state may subject itself to claims of aiding the aggressor and worse. Another problem with relatively clandestine material aid and with informal self-defense is notice. Although some defense treaties are not published,¹⁷⁴ many are, and all can see who is aligned with whom. This is not the case with clandestine aid to target states and informal collective self-defense agreements. These kinds of transactions carry with them the risks of misinterpretation and accusations when states act pursuant to them without notifying other states of the reasons for their actions. States so acting must consider these factors when assisting target states pursuant to these modalities. Adequate notice under the circumstances seems to be a practical requirement, if not a prerequisite, before states engage in informal collective self-defense or assistance to target countries.

171. *Helsinki Principles* 5.1.1 & cmt., *supra* note 120, at 506.

172. Walker, 31 CORNELL INT'L L.J., *supra* note 139, at 359; Walker, in THE LAW OF MILITARY OPERATIONS, *supra* note 139, at 386.

173. See *supra* note 168 and accompanying text.

174. RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 312 n.5. See also 1 U.S.C. §112a(b) (1994). Article 102 of the U.N. Charter requires treaties to be published in *United Nations Treaty Series* if parties wish to invoke them before a U.N. organ. U.N. CHARTER art. 102. Article 18 of the Covenant of the League of Nations required members to register all treaties with the League; they were not binding until registered. Article 18 was among U.S. President Woodrow Wilson's Fourteen Points. THE CHARTER OF THE UNITED NATIONS: A COMMENTARY, *supra* note 83, at 1103-16; GOODRICH ET AL., *supra* note 83, at 610-14. National legislation may require publication of agreements or notifying the national legislature of all international agreements, for example, 1 U.S.C. § 112b (1994).

Responses to aggressors also can include proportional reprisals not involving the use of force¹⁷⁵ or retorsions,¹⁷⁶ and states that are not belligerents (neutral states), but whose interests have been damaged by belligerent action can invoke these responses, along with a state of necessity (sometimes

175. Reprisal has been characterized as a kind of self-help or sanction. Most commentators say reprisals involving force against a state not engaged in armed conflict with the acting state committing a reprisal are not lawful in the Charter era. Other coercion that is unlawful, however, for example the deliberate breach of a trade treaty to compel a state engaging in unlawful conduct to comply with international norms, is admissible. Anticipatory reprisal using force is forbidden. A state considering reprisal must first call upon an offending state to mend its ways. Compare Declaration on Principles of International Law Concerning Friendly Relations and Co-Operation Among States in Accordance with the Charter of the United Nations, G.A. Res. 2625, U.N. GAOR, 25th Sess., Supp. No. 28, §§ 1, 3, U.N. Doc. A/8028 (1970), 9 I.L.M. 1292, 1294, 1297 (1970); Gabčíkovo-Nagymaros Project (Hung. v. Slov.), 1997 I.C.J. 7, 54 (Sept. 25); Nicaragua Case, 1986 I.C.J. at 127; Air Service Agreement of 27 March 1946 Between the United States of America and France (Dec. 9, 1978), BOWETT, *supra* note 112, at 13; J.B. BRIERLY, *THE LAW OF NATIONS* 401-02 (Humphrey Waldock ed., 6th ed. 1963); BROWNLIE, *supra* note 112, at 281; *THE CHARTER OF THE UNITED NATIONS: A COMMENTARY*, *supra* note 83, at 105; GOODRICH ET AL., *supra* note 83, at 340-47; ROSALYN HIGGINS, *THE DEVELOPMENT OF INTERNATIONAL LAW THROUGH THE POLITICAL ORGANS OF THE UNITED NATIONS* 217 (1963); NWP 1-14M ANNOTATED, *supra* note 37, para. 6.2.3.1; NWP 9A ANNOTATED, *supra* note 44, para. 6.2.3.1, at 6-19; 2 OPPENHEIM, *supra* note 112, §§ 43, 52a, at 152-53; 18 REPORTS OF INT'L ARBITRAL AWARDS 417, 443; STONE, *supra* note 112, at 286-87; Roberto Ago, *Addendum to the Eighth Report on State Responsibility*, [1980] 2(1) Y.B. Int'l L. Comm'n 13, 39, 42, U.N. Doc. A/CN.4/SER.A/1980/Add.1 (Part 1); Anthony Clark Arend, *International Law and the Recourse to Force: A Shift in Paradigms*, 27 STAN. L. REV. 1, 14 (1990); Roberto Barsotti, *Armed Reprisals*, in *THE CURRENT LEGAL REGULATION OF THE USE OF FORCE* 79 (Antonio Cassese ed., 1986); D.W. Bowett, *Reprisals Involving Recourse to Armed Force*, 66 AM. J. INT'L L. 20 (1972); Rosalyn Higgins, *The Attitude of Western States Toward Legal Aspects of the Use of Force*, in *THE CURRENT LEGAL REGULATION OF THE USE OF FORCE*, *supra*, at 435, 444; Tucker, *Reprisals*, *supra* note 168, at 586-87, with DINSTEIN, *supra* note 112, at 215-16 (reprisals using force admissible in Charter era); GREENBERG ET AL., *supra* note 1, at 26-27. (reprisals using force admissible in Charter era). Lobel unfortunately does not distinguish clearly between reprisals involving force and those that do not; however, from the context of his colloquy it would appear that he considers only the former. LOBEL, *supra* note 168, at 540, 542 (citing W. Michael Reisman, *Defence or Reprisals? The Raid on Baghdad: Some Reflections on Its Lawfulness and Implications*, 5 EUR. J. INT'L L. 120, 125 (1994), for the proposition that the 1993 U.S. attack on Baghdad in response to threats against former President George W. Bush might be better characterized as a reprisal).

176. Retorsion, or retortion, is a target state's lawful but unfriendly response to another state's unfriendly practice or act, whether illegal or not, to coerce the latter to discontinue that practice or act. Retorsionary responses must be proportional. RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 905 & n.8; BRIERLY, *supra* note 175, at 399; *THE CHARTER OF THE UNITED NATIONS: A COMMENTARY*, *supra* note 83, at 104; WILLIAM EDWARD HALL, *A TREATISE ON INTERNATIONAL LAW* § 120 (A. Pearce Higgins ed., 8th ed. 1924); 2 HYDE, *supra* note 53, § 588; FRITS KALSHOVEN, *BELLIGERENT REPRISALS* 27 (1971); 7 JOHN BASSETT MOORE, *A DIGEST OF INTERNATIONAL LAW* § 1090; 2 OPPENHEIM, *supra* note 112, § 135; STONE, *supra* note 112, at 288-89; Waldock, *supra* note 168, at 458.

known as self-help) against third states.¹⁷⁷ Although not all agree on the admissibility of the necessity doctrine,¹⁷⁸ law of the sea [LOS] treaties approve it for protecting coastlines from grave and imminent danger of pollution or threat of pollution.¹⁷⁹ The Charter prohibition on threats or uses of force against any state's

177. State of necessity and the now-outmoded concept of self-preservation have been confused, sometimes with a notion that necessity as a component of self-defense or that the LOAC may be so intense that in a situation involving the state's survival, necessity overrides all other factors to allow any action by a target state. This kind of self-preservation or self-help claim is now inadmissible. There is, however, a separate, distinct concept of necessity, apart from a similar term that is a conditioning factor for self-defense or the LOAC. In a separate claim of necessity, a state against whom an action is taken (a "third state") has committed no wrong against a state that takes action (an "acting state"), and an acting state does not consider itself the third state's target. In self-defense situations, a target state seeks to defend against aggression by a country in the position of the third state, *i.e.*, the aggressor. State of necessity can be invoked to preclude wrongfulness of conduct adopted in certain conditions to protect a target state's essential interest, without the third state's existence being in any way threatened. There remain cases in which a third state's right can be sacrificed for the sake of a vital interest of a target state that would otherwise be obligated to respect that right. *Gabčikovo-Nagymaros Project*, 1997 I.C.J. at 40-44 (customary law); *Corfu Channel (U.K. v. Alb.)*, 1947 I.C.J. 7, 35 (Dec. 10); *M/V Saiga (St. Vincent v. Eq. Guinea)*, 38 I.L.M. 1323, 1351-52 (1999 Int'l Tribunal for the Law of the Sea) (customary law); BOWETT, *supra* note 112, at 10; BROWNIE, *supra* note 112, at 46-47; INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 22; 1 OPPENHEIM, *supra* note 44, § 126; 2 OPPENHEIM, *supra* note 112, § 326; *Helsinki Principles*, *supra* note 120, at 501; Higgins, *supra* note 175, at 216; International Law Commission, Draft Articles on State Responsibility, art. 33, [1980] 2(2) Y.B. Int'l L. Comm'n 26, 34, U.N. Doc. A/CN.4/SER.A/1980/Add.1 (Part 2); Ago, *supra* note 175, at 15-18; Astley & Schmitt, *supra* note 121, at 140; George Schwarzenberger, *The Fundamental Principles of International Law*, 87 RECUEIL DES COURS DE L'ACADÉMIE DE DROIT INTERNATIONAL 195, 343 (1955). The United States pleaded necessity during litigation between the former Yugoslavia and NATO members. Schwabach, *supra* note 11, at 91. State of necessity can arise during armed conflict, for example where a belligerent warship remains in neutral territorial waters and the neutral country is unable or unwilling to expel the vessel as the LOAC provides. What is a proper invocation of state of necessity in the self-defense context may not necessarily be a proper use of the principle during armed conflict and vice versa. See *infra* notes 279, 342 and accompanying text.

178. Compare, *e.g.*, BOWETT, *supra* note 112, at 10 (no such doctrine exists); BROWNIE, *supra* note 112, at 42-44 (no such doctrine exists), *with, e.g.*, *Gabčikovo-Nagymaros Project*, 1997 I.C.J. at 40-41 (customary norm); *M/V Saiga*, *supra* note 177, at 1351-52 (customary norm); BIN CHENG, GENERAL PRINCIPLES OF LAW AS APPLIED BY INTERNATIONAL COURTS AND TRIBUNALS 31, 69 (1983) (doctrine exists); INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 22; 2 OPPENHEIM, *supra* note 112, § 326 (doctrine exists); Ago, *supra* note 175, at 48-49 (doctrine exists); *Helsinki Principles*, *supra* note 120, at 501; Schwarzenberger, *supra* note 177, at 343. Cf. 1 OPPENHEIM, *supra* note 44, §§ 131 n.15, 354.

179. UNCLOS, *supra* note 44, art. 221, 1833 U.N.T.S. at 489; Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, Nov. 29, 1969, art. 1(1), 26 U.S.T. 765, 767, 970 U.N.T.S. 211, 212 [hereinafter *Intervention Convention*]. See also MYRON H. NORDQUIST ET AL., UNITED NATIONS CONVENTION ON THE LAW OF THE SEA: A COMMENTARY §§ 221.1-221.2 (1991); O'CONNELL, *supra* note 44, at 1006-08.

territorial integrity or political independence also must be considered;¹⁸⁰ it has been cited as a reason for the prohibition on reprisals involving force.¹⁸¹

These alternatives—self-defense,¹⁸² nonforce reprisals, retorsions, and necessity—remain as options for neutrals in the Charter era, but taking such actions could be seen as favoritism for a belligerent because of the actions taken against its enemy. In effect, the actor state might have the appearance of being a non-belligerent by acting in this matter.

Examples from recent conflicts illustrate the point. During the Falklands/Malvinas War, European states attempted to isolate Argentina economically, most likely in violation of international obligations. These reprisals were justified against the aggressor in that war. If the United States' and other countries' supplying economic assistance, intelligence, and other information to the United Kingdom would be deemed unlawful, those actions were also appropriate non-force reprisals under the Rio Treaty mutual security for Argentina's violation of territorial integrity.¹⁸³ Governments' actions to convoy, escort, and offer protection to neutral ships not carrying warfighting or war-sustaining goods to belligerent ports during the Tanker War¹⁸⁴ were retorsionary in nature. These were unfriendly acts directed toward a belligerent thought to have violated international law.

In essence, the principles applying to the intermediate status between belligerency and neutrality need not necessarily depend on the development of a customary practice recognized as law, however the trend may seem to have been since 1939 and

180. This prohibition would trump, for example, intervention by necessity under UNCLOS. U.N. CHARTER arts. 2(4), 103; UNCLOS, *supra* note 44, art. 221, 1833 U.N.T.S. at 489; Intervention Convention, *supra* note 179, art. 1(1), 26 U.S.T. at 767, 970 U.N.T.S. at 212. *See also* THE CHARTER OF THE UNITED NATIONS: A COMMENTARY, *supra* note 83, at 106-28; GOODRICH ET AL., *supra* note 83, at 43-55; SHARP, *supra* note 1, at 11; *Helsinki Principles* 1.4 & cmt., *supra* note 120, at 500.

181. *See supra* note 175 and accompanying text.

182. *Helsinki Principles* 1.2 & cmt., 1.4 & cmt., *supra* note 120, at 499, 500 (the latter noting that a belligerent warship transiting neutral waters always has a right of self-defense).

183. *See supra* note 175 and accompanying text. *See also* Inter-American Treaty of Reciprocal Assistance, Sept. 2, 1947, 62 Stat. 1681, 21 U.N.T.S. 77 [hereinafter Rio Treaty], *superseding* Inter-American Reciprocal Assistance and Solidarity, Mar. 8, 1945, 60 Stat. 1831 [hereinafter Act of Chapultepec]. *See also* Manuel S. Canyos, *The Inter-American System and the Conference of Chapultepec*, 39 AM. J. INT'L L. 504 (1945); Josef L. Kunz, *The Inter-American System and the United Nations Organization*, 39 AM. J. INT'L L. 758 (1945). The Act was a major factor for including Article 51 in the U.N. Charter. Walker, 31 CORNELL INT'L L.J., *supra* note 139, at 351, 360; Walker, in THE LAW OF MILITARY OPERATIONS, *supra* note 139, at 382, 387.

184. *See supra* notes 158-59 and accompanying text.

continuing into the Charter era,¹⁸⁵ or upon resolving the commentators' debate.¹⁸⁶ Charter-governed norms apply to fill the void to permit neutrals' claims to invoke non-force reprisals, retorsions, and state of necessity that might have evoked claims of non-belligerency before 1945. Neutrals also retain the inherent right of individual and collective self-defense but are subject to Charter prohibitions on violating other countries' territorial integrity or political independence by threats of or use of force.

3. The Law of Neutrality in the Context of U.N. Action Under the Charter

Part III.A.1 demonstrates that neutrality, primarily as practiced in the nineteenth century, has been modified in the Charter era, but the general concept of neutrality remains. Part III.A.2 shows that concepts of individual and collective self-defense, including anticipatory self-defense, and reprisals not involving the use of force, retorsions, and the state of necessity remain as response options in the Charter era, albeit modified by Charter law.¹⁸⁷

A further question is the effect U.N. General Assembly or Security Council actions may have on this corpus of law. Other international governmental organizations, like the International Telecommunications Union (ITU) and the International Maritime Organisation (IMO) (which deals with LOS issues), may also affect decision-making, but these have been excluded from analysis. Decision-making options and practice under the Charter demonstrate that there has been and will be ample room for claims of neutrality or non-belligerency.

First, although the Council may make legally binding decisions under Articles 25 and 48 of the Charter and therefore may obligate U.N. Members under Articles 41 and 42 to take action that might be inconsistent with traditional neutrality principles, the Council also may make nonbinding "call[s] upon" Members under Articles 40 and 41.¹⁸⁸ It also may make nonbinding recommendations under Articles 39 and 40.¹⁸⁹ These recommendations have no more force of law than General Assembly recommendations under Articles 10, 11, 13, and 14 unless they restate custom, general principles, or treaty-based

185. See *supra* notes 131-67 and accompanying text.

186. See *supra* notes 133-35 and accompanying text.

187. One example of Charter law modifications is the treaty trumping provision of Article 103 of the U.N. Charter. See *supra* note 124. See also *supra* notes 175-81.

188. U.N. CHARTER arts. 40, 41.

189. *Id.* arts. 39, 40.

norms.¹⁹⁰ If Council decisions differ from traditional neutrality principles the latter must give way.¹⁹¹ If Council or Assembly resolutions vary from traditional neutrality principles, and restate customary or other binding sources of law,¹⁹² these resolutions also will affect the traditional law of neutrality.¹⁹³

Thus, Council decisions may compel a state to behave inconsistently with traditional neutrality practice by requiring what otherwise would be belligerent acts or by restricting the rights neutrals traditionally enjoy.¹⁹⁴ For example, U.N. Charter Article 50, invoked by the Council for states affected by a Council-directed embargo of Iraq during the 1990-91 Gulf War,¹⁹⁵ allows the Council to consult with states finding themselves with "special economic problems" arising from carrying out Council-decided preventive or security measures. Thus, even if Jordan and like-status states would have lost some or all of their rights and duties as neutrals through initial Council decision-making in that war, an Article 50 reprieve could have restored some or all these rights and duties. Council action under Article 50 may result in greater rights, or lesser duties, than under traditional neutrality law.

Second, Council decisions when first taken may include exemptions that would, in effect, allow reversion to traditional neutrality law. For example, the sea and air embargoes against Iraq in the 1990-91 war and against the former Yugoslavia

190. SYDNEY D. BAILEY & SAM DAWS, *THE PROCEDURE OF THE UN SECURITY COUNCIL* 18-20 (3d ed. 1998); JORGE CASTAÑEDA, *LEGAL EFFECTS OF UNITED NATIONS RESOLUTIONS* 70-116 (Alba Amoia trans., 1969); CASTREN, *supra* note 112; *THE CHARTER OF THE UNITED NATIONS: A COMMENTARY*, *supra* note 83, at 284, 407-18, 605-36, 652; GOODRICH ET AL., *supra* note 83, at 126, 144, 290-314; Lalive, *supra* note 112, at 78-81. Nonbinding Assembly or Council resolutions can strengthen a preexisting norm to evidence its existence and vitality or can contribute to developing a new norm. RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 103(2)(d), cmt. c & n.2; BROWNIE, *supra* note 44, at 14-15, 694; 1 OPPENHEIM, *supra* note 44, § 16, at 47-49.

191. *Helsinki Principles* 1.2 & cmt., *supra* note 120, at 499; Dietrich Schindler, *Commentary*, in *LAW OF NAVAL WARFARE: A COLLECTION OF AGREEMENTS AND DOCUMENTS WITH COMMENTARIES*, *supra* note 121, at 211.

192. RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 103.

193. *Cf. Helsinki Principles* 1.2 & cmt., *supra* note 120, at 499.

194. U.N. CHARTER art. 2(5); Quincy Wright, *The Outlawry of War and the Law of War*, 47 AM. J. INT'L L. 365, 371-72 (1953). Permanently neutral countries have supported U.N. action. *See, e.g.*, GABRIEL, *supra* note 112, at 132-33 (noting Swedish and Swiss economic aid and support during the Korean War); ROSS, *supra* note 112 (noting Swedish and Swiss actions against Rhodesia).

195. Jordan was the chief applicant, but twenty-one states invoked U.N. Charter, art. 50. Nico Schrijver, *The Use of Economic Sanctions by the UN Security Council: An International Law Perspective*, in *International Economic Law and Armed Conflict*, *supra* note 112, at 123, 149-50. *See also* THE CHARTER OF THE UNITED NATIONS: A COMMENTARY, *supra* note 83, at 659-61; GOODRICH ET AL., *supra* note 83, at 340-42; George K. Walker, *The Crisis Over Kuwait, August 1990-February 1991*, 1991 DUKE J. COMP. & INT'L L. 25, 37-38.

beginning in 1991 had exemptions for medical supplies, humanitarian supplies, and foodstuffs notified to the Council's Sanctions Committee, which includes representatives from all Council members.¹⁹⁶ To that extent, and unless otherwise controlled by other effects of Council decisions, such as the Collective Measures Committee, the traditional neutrality law would apply to shipments. This exception has been most apparent when the Council has decided to embargo a single commodity, such as petroleum, weapons, or military equipment,¹⁹⁷ followed by recommendations on, calls for, or decisions on, enforcement. In that situation the law of the resolution would apply to the selected commodities, while neutrality rules would be in force as to other goods if armed conflict is involved. Thus far that situation has not arisen. One similar case was Rhodesia (1965), which did not involve international armed conflict, and only selective enforcement as to one commodity, petroleum.¹⁹⁸ Neutrality principles apply for

196. Compare S.C. Res. 661, U.N. SCOR, 45th Sess., 2933d mtg., U.N. Doc S/RES/661 (1990) (Iraq embargo), reprinted in KAREL C. WELLENS, RESOLUTIONS AND STATEMENTS OF THE UNITED NATIONS SECURITY COUNCIL (1946-1992): A THEMATIC GUIDE 528 (2d ed. 1993), with S.C. Res. 757, U.N. SCOR, 47th Sess., 3082d mtg., U.N. Doc S/RES/757 (1992), reprinted in WELLENS, *supra*, at 59; S.C. Res. 760, U.N. SCOR, 47th Sess., 3086th mtg., U.N. Doc S/RES/760 (1992), 31 I.L.M. 1461 (1992) (former Yugoslavia embargo). S.C. Res. 665 (1990) called for enforcing the Iraq embargo. S.C. Res. 665, U.N. SCOR, 45th Sess., 2938th mtg., U.N. Doc S/RES/665 (1990), reprinted in WELLENS, *supra*, at 530. S.C. Res. 670 (1990) directed an end to civil air commerce with Iraq, except humanitarian cargoes. S.C. Res. 670, U.N. SCOR, 45th Sess., 2943d mtg., U.N. Doc S/RES/670 (1990), reprinted in WELLENS, *supra*, at 534. S.C. Res. 787 (1992) expanded on S.C. Res. 724 (1991) and called on states to use individual and collective measures to halt inbound and outbound shipping to or from the former Yugoslavia. S.C. Res. 787, U.N. SCOR, 47th Sess., 3137th mtg., U.N. Doc S/RES/787 (1992), 31 I.L.M. 1481 (1992); S.C. Res. 724, U.N. SCOR, 46th Sess., 3023d mtg., U.N. Doc S/RES/724 (1991), reprinted in WELLENS, *supra*, at 51. Economic sanctions were imposed for the Angola, Haiti, Liberia, Libya, and Somalia crises. A Sanctions Committee was appointed in all cases except Liberia. Schrijver, *supra* note 195, at 132-43, 151-54.

197. S.C. Res. 724 (1991) decided on a limited embargo. S.C. Res. 724, U.N. SCOR, 46th Sess., 3023d mtg., U.N. Doc S/RES/724 (1991), reprinted in WELLENS, *supra* note 196, at 51. The same procedure was followed for South Africa. S.C. Res. 418, U.N. SCOR, 32d Sess., 2046th mtg., U.N. Doc S/RES/418 (1977), reprinted in WELLENS, *supra* note 196, at 218; S.C. Res. 569, U.N. SCOR, 40th Sess., 2602d mtg., U.N. Doc S/RES/569 (1985), reprinted in WELLENS, *supra* note 196, at 228; S.C. Res. 591, U.N. SCOR, 41st Sess., 2723d mtg., U.N. Doc S/RES/591 (1986), reprinted in WELLENS, *supra* note 196, at 230. Arms and other commodity embargoes were also imposed in the Angola, Haiti, and Libya crises. Schrijver, *supra* note 195, at 129-32, 146-47.

198. Rhodesia also illustrates the interplay of General Assembly and Security Council resolutions. See generally O'CONNELL, *supra* note 168, at 137-38, 174-75; Schrijver, *supra* note 195, at 129-30; George K. Walker, *State Practice Following World War II, 1945-1990*, in THE LAW OF NAVAL WARFARE: TARGETING ENEMY SHIPPING 121, 142-43 (Richard J. Grunawalt ed., U.S. Naval War Coll. Int'l Law Studies vol. 65, 1993).

commodities not listed in a selective Council decision. If Article 42 measures approve the use of force for some circumstances but not for others, and the use of force is appropriate in those other circumstances, neutrality law applies in those circumstances.¹⁹⁹ For example, if the Council decides on an air-land campaign against an aggressor, with no decision on maritime aspects of the crisis, the maritime law of neutrality will apply to the maritime aspects of the situation to the extent the Council decision's impact does not overlap into maritime issues. An example of the overlap might be air flights over the high seas. If an air-land related resolution is in force, it would apply to ocean overflights to and from the affected state, except purely maritime-oriented flights, such as ship-to-ship helicopter resupply.

The third point is the relative infrequency of the application of mandatory Council decisions. Of the many crises since 1945 involving a potential for armed conflict or actual conflict and that could be said to risk a "threat to the peace, breach of the peace, or act of aggression,"²⁰⁰ mandatory Council decisions have governed only a handful.²⁰¹ In terms of the potential for or actual warfare at sea, six crises have produced Council decisions: Rhodesia (1965), the Gulf War (1990-91), the disintegration of Yugoslavia (1991), Angola (1992), Liberia (1992), and Haiti (1993).²⁰² Even the Korean War evoked only Council calls or recommendations for action before the USSR vetoes, and thereafter General Assembly recommendations under the Uniting for Peace Resolution.²⁰³ To be sure, some calls for action and

199. CASTREN, *supra* note 112, at 435 (referring to U.N. CHARTER art. 42). See also THE CHARTER OF THE UNITED NATIONS: A COMMENTARY, *supra* note 83, at 628-36; GOODRICH ET AL., *supra* note 83, at 314-17. That states are free to act under traditional neutrality law is supported by continuing vitality of the national sovereignty principle. See generally U.N. CHARTER arts. 2(1), 103; S.S. Lotus (Fr. v. Turk.), 1927 P.C.I.J. (ser. A) No. 10, at 4, 18 (Sept. 7); U.N. SECRETARY-GENERAL, AN AGENDA FOR PEACE: REPORT OF THE SECRETARY-GENERAL ON THE WORK OF THE ORGANIZATION, U.N. Doc. A/47/277, S/24111 (1992), 31 I.L.M. 956, 959 (1992); MICHAEL AKEHURST, A MODERN INTRODUCTION TO INTERNATIONAL LAW 21-23 (Brian Chapman ed., 3d ed. 1977); BRIERLY, *supra* note 175, at 45-49; SCHACHTER, *supra* note 168, at 9-15; Jonathan Charney, *Universal International Law*, 87 AM. J. INT'L L. 529, 530 (1993). But see HENKIN, *supra* note 168, at 9-10.

200. U.N. CHARTER art. 39. See also THE CHARTER OF THE UNITED NATIONS: A COMMENTARY, *supra* note 83, at 605-16; GOODRICH ET AL., *supra* note 83, at 293-302.

201. "The unusual situation [contemplated by the Charter for applying the law of neutrality has] bec[om]e the rule The originally anticipated interstitial situation in which assumption of a neutral status might be permissible under the Charter has arisen . . . in every international armed conflict of the last three decades [1945-75]." Norton, *supra* note 112, at 252.

202. Schrijver, *supra* note 195, at 135-44. See also *supra* notes 196-97 and accompanying text.

203. G.A. Res. 377, U.N. GAOR, 5th Sess., Supp. No. 20, at 10, U.N. Doc. A/1481 (1950), reprinted in 45 AM. J. INT'L L. 1 (Supp. 1951). See also CASTAÑEDA,

recommendations were well supported,²⁰⁴ but they did not carry the force of decisional law. When the Council approves measures other than decisions, the resulting resolutions, although confessedly highly persuasive and authoritatively stated from political and policy perspectives, are nonetheless recommendatory as a matter of law. In the latter case, which is representative of the overwhelming bulk of resolutions the Council has passed to date, neutrality law has had and will have a full opportunity to operate. Widespread compliance with calls for action or recommendations could eventually mature into custom, but it is doubtful whether state practice under them would be of sufficient duration²⁰⁵ if states accept the action as law.²⁰⁶ In any event, neutrality principles will exist between a precipitating event, such as a breach of the peace, and Council action.²⁰⁷

Even if the Council decides on action, the enforcement mechanisms have not been the Military Staff Committee and special forces the Charter contemplates.²⁰⁸ Rather, the Council has often used an agency principle, choosing a state or group of states to respond to the crisis, with one nation perhaps chosen for a leadership role – for example, the United States in Korea, the United Kingdom in Rhodesia, and a coalition in the 1990-91 Gulf War.²⁰⁹ In these situations, agent state(s) might be involved in enforcing the law of neutrality, even though overarching Council resolutions exist. Such was the case for Korea, where the U.S.-declared blockade involved observing neutral vessel rights to visit nearby USSR ports and the right of USSR warships to proceed to North Korean ports.²¹⁰ In recently-ordered embargo operations

supra note 190, at 81-103; THE CHARTER OF THE UNITED NATIONS: A COMMENTARY, *supra* note 83, at 235; GOODRICH ET AL., *supra* note 83, at 122-25. Williams, *supra* note 112, may overemphasize the importance of the Resolution process as a law-promulgating mechanism.

204. Howard J. Taubenfeld, *International Actions and Neutrality*, 47 AM. J. INT'L L. 377, 393-94 (1953) (noting the relative success of General Assembly call for embargo against People's Republic of China).

205. North Sea Continental Shelf (F.R.G. v. Den., F.R.G. v. Neth.), 1969 I.C.J. 3, 43 (Feb. 20); RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 102 cmt. b & n.2; BROWNLIE, *supra* note 44, at 5; 1 OPPENHEIM, *supra* note 44, § 10, at 30-31.

206. Sanctions practice against Iraq and the former Yugoslavia may be candidates for congealment into custom.

207. CASTREN, *supra* note 112, at 433-34.

208. U.N. CHARTER arts. 43-47. The Committee was a Cold War casualty; prospects for revitalizing it are not good. See generally THE CHARTER OF THE UNITED NATIONS: A COMMENTARY, *supra* note 83, at 636-51; GOODRICH ET AL., *supra* note 83, at 317-33; DANIEL PATRICK MOYNIHAN, ON THE LAW OF NATIONS 112-13 (1990); Michael Mandelbaum, *The Bush Foreign Policy*, 70(1) FOREIGN AFF. 5, 11 (1991).

209. Walker, *supra* note 195, at 48-50. Gioia states that the Council cannot delegate powers to one state. Gioia, *supra* note 112, at 14. In practice, however, its record appears otherwise.

210. MALCOLM W. CAGLE & FRANK A. MANSON, THE SEA WAR IN KOREA 281-83, 299-300, 304, 353-57, 370-73 (1957); JAMES A. FIELD, HISTORY OF UNITED STATES

where the Council has not designated a state or states as leader(s), there has been confusion.²¹¹

The Security Council's Tanker War resolutions fell into the first and third categories of exceptions. No state, including the belligerents, had to obey a Council resolution, except through calls for action, demands, or recommendations. Thus, neutrality principles had full potential play for that war. Other conflicts, particularly the ongoing situation that began with the 1990-91 Gulf War and the former Yugoslavia's disintegration, demonstrate that gaps in Council decisions and its methodology of taking action leave copious opportunities for applying neutrality principles. These principles may not be the same as those before the Charter era because individual and collective self-defense actions must be factored in; however, neutrality as a concept continues to exist.

Moreover, the Council appears to have approved *sub silentio* the concepts of neutrality and non-belligerency. International agreements concluded since 1945, including the 1949 Geneva Conventions (which are, along with the Charter, the most widely accepted multilateral treaties)²¹² have continued to use the terms "neutral" and, more rarely, "non-belligerent."²¹³ The Council

NAVAL OPERATIONS: KOREA 42, 54, 58-59, 61, 126, 158, 349, 395, 444 (1962); Walker, *supra* note 198, at 126.

211 *E.g.*, Michael R. Gordon, *U.S. Believes Greek Ship is Carrying Serbian Arms in Somalia*, N.Y. TIMES, Feb. 23, 1993, at A6. The U.N. command center for peacekeeping operations has been relatively spartan, running on a shoestring budget from U.N. headquarters but that could change. Nevertheless, when compared with modern national command centers, the Organization has a way to go and is likely to rely on the agency concept in the future. *Cf.* THE CHARTER OF THE UNITED NATIONS: A COMMENTARY, *supra* note 83, at 650-51; Barbara Crossette, *U.S. Ambassador to U.N. Calls for Changes in Peacekeeping*, N.Y. TIMES, June 14, 2000, at A8.

212. *Cf.* U.S. DEP'T OF STATE, *supra* note 124, at 445-46, 470-71.

213. Convention for Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field, Aug. 12, 1949, art. 8, 6 U.S.T. 3114, 3120, 75 U.N.T.S. 31, 36 [hereinafter First Convention] ("neutral powers"); Convention for Amelioration of the Condition of Wounded, Sick, and Shipwrecked Members of Armed Forces at Sea, Aug. 12, 1949, arts. 8, 11, 16, 6 U.S.T. 3217, 3224, 3226, 3230, 75 U.N.T.S. 85, 90, 92, 96 [hereinafter Second Convention] ("neutral powers" and also "neutral warship or a neutral aircraft"); Third Convention, *supra* note 127, arts. 4(B)(2), 8, 10, 6 U.S.T. at 3320-22, 3326, 75 U.N.T.S. at 140, 142, 144 ("neutral or non-belligerent powers" and "neutral power"); Convention Relative to the Protection of Civilian Persons in Time of War, Aug. 12, 1949, arts. 4, 9, 6 U.S.T. 3516, 3520, 3524, 75 U.N.T.S. 287, 290, 294 [hereinafter Fourth Convention] ("neutral" and "belligerent"). *See also* 1 PICTET, *supra* note 127, at 86-103; 2 PICTET, *supra* note 127, at 60-65, 68-72, 78-82, 93-103, 111-23; 4 PICTET, *supra* note 127, at 45-51, 81-92; Deák, *supra* note 112, at 143; Norton, *supra* note 112, at 254-56. Protocol I uses the phrases "neutral" and "other State not party to the conflict." Protocol I, *supra* note 41, arts. 2(a), 9(2), 19, 22(2), 30(3), 31(5), 37(1)(3), 39(1), 64(1), 75, 1125 U.N.T.S. at 7, 11, 15, 18, 19, 21, 22, 33, 37. *See also* MICHAEL BOTHE ET AL., NEW RULES FOR VICTIMS OF ARMED CONFLICTS:

cited these conventions during the Tanker War, and again during the 1990-91 Gulf War.²¹⁴ The Council referred to "states not party to the hostilities" in Tanker War Resolution 552.²¹⁵ Furthermore, nothing in practice under the Charter suggests that earlier conventions dealing with neutrality are invalid under the Charter.²¹⁶ To the extent that earlier treaties have crystallized into custom,²¹⁷ they exist in that mode as a valid source of law.²¹⁸

COMMENTARY ON THE TWO 1977 PROTOCOLS ADDITIONAL TO THE GENEVA CONVENTIONS OF 1949 at 55, 105-06, 138-39, 144-45, 162-63, 165, 167, 202-06, 212-14, 407-08, 457 (1982); INT'L COMM. OF THE RED CROSS, COMMENTARY ON THE ADDITIONAL PROTOCOLS OF 8 JUNE 1977 TO THE GENEVA CONVENTIONS OF 12 AUGUST 1949 at 57-59, 138, 140-43, 238-40, 316, 319-21, 326-27, 337, 430-32, 436-37, 439, 462-65, 760-61, 863-90 (Yves Sandoz et al. eds., 1987). "Neutral" or "neutrality" have been used in armistices and other settlements since 1945. *E.g.*, Agreement on Ending the War and Restoring Peace in Viet-Nam, Jan. 27, 1973, art. 20, 24 U.S.T. 115, 130; Declaration on the Neutrality of Laos, July 18, 1962, 14 U.S.T. 1105; Agreement Concerning the Military Armistice in Korea, July 27, 1953, arts. 36-50, 4 U.S.T. 234, 248-53; Temporary Agreement Supplementary to the Armistice Agreement in Korea, July 27, 1953, para. 1, 4 U.S.T. 346.

214. S.C. Res. 540, U.N. SCOR, 38th Sess., 2493d mtg., U.N. Doc. S/RES/540 (1983); S.C. Res. 598, U.N. SCOR, 42d Sess., 2750th mtg., U.N. Doc. S/RES/598 (1987); S.C. Res. 666, U.N. SCOR, 45th Sess., 2939th mtg., U.N. Doc. S/RES/666 (1990); S.C. Res. 670, U.N. SCOR, 45th Sess., 2943d mtg., U.N. Doc. S/RES/670 (1990); S.C. Res. 674, U.N. SCOR, 45th Sess., 2951st mtg., U.N. Doc. S/RES/674 (1990); S.C. Res. 678, U.N. SCOR, 45th Sess., 2963d mtg., U.N. Doc. S/RES/678 (1990); S.C. Res. 686, U.N. SCOR, 46th Sess., 2978th mtg., U.N. Doc. S/RES/686 (1991). *See also* Walker, *supra* note 195, at 36-37. The Council also cited them during the Yugoslavia crisis. *E.g.*, S.C. Res. 764, U.N. SCOR, 47th Sess., 3093d mtg., U.N. Doc. S/RES/764 (1992), 31 I.L.M. 1465 (1992); S.C. Res. 780, U.N. SCOR, 47th Sess., 3119th mtg., U.N. Doc. S/RES/780 (1992), 31 I.L.M. 1476 (1992).

215. S.C. Res. 552, U.N. SCOR, 39th Sess., 2546th mtg., U.N. Doc. S/RES/552 (1984), *reprinted* in WELLENS, *supra* note 196, at 473.

216. Norton, analyzing Article 103 of the U.N. Charter, points out that the then-current 1976 *Treaties in Force* still listed the 1907 Hague Conventions, replete with citations to neutrality, that the United States had ratified and that were binding unless expressly superseded by later treaties. Norton, *supra* note 112, at 256. This is still the case. There have been few accessions since World War II. THE LAW OF NAVAL WARFARE: A COLLECTION OF AGREEMENTS AND DOCUMENTS, *supra* note 121, at 93-95, 111-13, 129-30, 149-50, 173-74, 193-94; U.S. DEP'T OF STATE, *supra* note 124, at 449-50. Treaty succession principles suggest that the Conventions may have more applicability than the lists in *Treaties in Force* and *The Law of Naval Warfare: A Collection of Agreements and Documents* suggest. *See generally* Gabčíkovo-Nagymaros Project (Hung. v. Slov.), 1997 I.C.J. 7, 66-68 (Sept. 25); Symposium, *State Succession in the Former Soviet Union and in Eastern Europe*, 33 VA. J. INT'L L. 253 (1993); George K. Walker, *Integration and Disintegration in Europe: Reordering the Treaty Map of the Continent*, 6 TRANSNAT'L LAW. 1 (1993).

217. Vienna Convention, *supra* note 44, pmb., art. 38, at 333, 341; Nicaragua Case (Nicar. v. U.S.), 1986 I.C.J. 14, 31-38, 91-135 (June 27). *See also* North Sea Continental Shelf (F.R.G. v. Den., F.R.G. v. Neth.), 1969 I.C.J. 3, 28-29, 36-45 (Feb. 20); RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 102(3) & cmt. f; BROWNLIE, *supra* note 44, at 5; 1 OPPENHEIM, *supra* note 44, § 10, at 28; Richard R. Baxter, *Treaties and Custom*, 129 RECUEIL DES COURS DE L'ACADEMIE DE DROIT

4. Sources of International Law; the Law of Treaties

Besides Charter law, another consideration is the impact of sources of law on principles of neutrality. While part of the law of neutrality is crystallized in treaties, some of which are nearly a century old²¹⁹ and have been held to reflect custom,²²⁰ other principles are restated in secondary sources.²²¹ These, too, may restate custom.²²²

The law of treaties may affect the analysis. Although many treaties may bear on IW issues, during armed conflict they may be impossible to perform,²²³ a fundamental change of

INTERNATIONAL 25, 36 (1970). Norton argues that including neutrality rules in military manuals indicates the continued vitality of the concept. Norton, *supra* note 112, at 256-57. See also BROWNLIE, *supra* note 44, at 5. However, disclaimer clauses may blunt or eliminate their impact as evidence of custom, although they are excellent guides to practice. E.g., NWP 1-14M ANNOTATED, *supra* note 37, at xxxv, xxxvii; Preface to NWP 9A ANNOTATED, *supra* note 44. See also W. Michael Reisman & William K. Leitzau, *Moving International Law from Theory to Practice: The Role of Military Manuals in Effectuating the Law of Armed Conflict*, in THE LAW OF NAVAL OPERATIONS, *supra* note 44, at 1.

218. Cf. *supra* notes 138-43 and accompanying text (practice under Lend-Lease treaties may support the practice of non-belligerency).

219. E.g., Convention Respecting the Rights and Duties of Neutral Powers and Persons in Case of War on Land, Oct. 18, 1907, 36 Stat. 2310 [hereinafter Hague V]; Convention Concerning the Rights and Duties of Neutral Powers in Naval War, Oct. 18, 1907, 36 Stat. 2415 [hereinafter Hague XIII].

220. E.g., NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3 n.27 (Hague V reflects custom as to its rules on neutral territory); *id.* paras. 7.3 n.22, 7.3.2 n.32 (Hague XIII reflects custom as to its rules on neutral territory); Schindler, *supra* note 191, at 215, 221 (with minor exceptions Hague XIII is considered custom).

221. E.g., Commission of Jurists, Hague Rules of Air Warfare, Dec. 1922-Feb. 1923, reprinted in DIETRICH SCHINDLER & JIRI TOMAN, THE LAWS OF ARMED CONFLICT 207 (3d ed. 1988) [hereinafter Hague Air Rules].

222. Many commentators say that the Hague Air Rules, *supra* note 221, restate custom. INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 13(j), cmt. 13.24 n.23 (Hague Air Rules "largely correspond . . . to customary rules and general principles"), 17 cmt. 17.1 (Hague Air Rules, art. 42, is a customary norm), 125 cmt. 125.1 (Hague Air Rules restate custom for aircraft visit and search), 141 cmt. 141.1 (Hague Air Rules restate custom on the capture of enemy civil aircraft), 158 cmt. 158.1 (Hague Air Rules restate custom on the safety of passengers and crew of captured aircraft); NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3.7 n.82. But see Remigiusz Bierzanek, *Commentary*, in THE LAW OF NAVAL WARFARE: A COLLECTION OF AGREEMENTS AND DOCUMENTS WITH COMMENTARIES, *supra* note 121, at 396, 402 (Hague Air Rules were influenced by land, sea warfare rules but are not binding law). The U.S. Navy applied them in World War II. U.S. DEPT OF THE AIR FORCE, INTERNATIONAL LAW: THE CONDUCT OF ARMED CONFLICT AND AIR OPERATIONS, para. 4-3c (1976) (citing U.S. NAVY, TENTATIVE INSTRUCTIONS GOVERNING MARITIME AND AERIAL WARFARE (May 1941)). France, Italy, Japan, Poland, and the United Kingdom also applied them in World War II. Bierzanek, *supra*, at 402-03.

223. A country creating a state of impossibility of performance cannot invoke the principle. Vienna Convention, *supra* note 44, art. 61, at 346. See also Gabčíkovo-Nagymaros Project (Hung. v. Slov.), 1997 I.C.J. 7, 39 (Sept. 25) (Vienna Convention art. 61 is a customary norm); RESTATEMENT (THIRD) OF FOREIGN

circumstances may intervene,²²⁴ or there may be a material breach of a treaty.²²⁵ *Jus cogens* norms, such as the inherent right of self-defense,²²⁶ may trump treaty law.²²⁷ War or armed conflict may end or suspend treaty obligations.²²⁸ One usage of

RELATIONS § 336 cmt. c & n.3; BROWNLIE, *supra* note 44, at 623; ELIAS, *supra* note 166, at 128-30; INT'L LAW COMM'N, REPORT OF THE INTERNATIONAL LAW COMMISSION ON THE WORK OF ITS EIGHTEENTH SESSION, U.N. Doc. A/6309/Rev. 1 (1966), reprinted in [1966] 2 Y.B. Int'l L. Comm'n 172, U.N. Doc. A/CN.4/SER.A/1966/Add.1 [hereinafter ILC REPORT]; 1 OPPENHEIM, *supra* note 44, § 650; *Helsinki Principles* 1.3 & cmt., *supra* note 120, at 499; Walker, *supra* note 216, at 65-66. *But see* MCNAIR, *supra* note 44, at 685 (no separate impossibility doctrine).

224. Fundamental change of circumstances may not be invoked to suspend or terminate humanitarian law treaty obligations, particularly their reprisal provisions, or by a party causing the problem. Vienna Convention, *supra* note 44, art. 62, at 347. *See also* Gabčíkovo-Nagymaros Project, 1997 I.C.J. at 39 (Art. 62 a customary norm); Fisheries Jurisdiction (U.K. v. Ice.), 1973 I.C.J. 3, 18 (Feb. 2) (Art. 62 a customary norm); RESTATEMENT (THIRD) OF FOREIGN RELATIONS §§ 336, 339; BROWNLIE, *supra* note 44, at 623-26; ILC REPORT, *supra* note 223, at 257-59; MCNAIR, *supra* note 44, at 685-91; 1 OPPENHEIM, *supra* note 44, § 651; SINCLAIR, *supra* note 44, at 20; David Bederman, *The 1871 London Declaration, Rebus Sic Stantibus and a Primitivist View of the Law of Nations*, 82 AM. J. INT'L L. 1 (1988); Gyorgy Harsatzti, *Treaties and the Fundamental Change of Circumstances*, 146 RECUEIL DES COURS DE L'ACADÉMIE DE DROIT INTERNATIONAL 1, 21 (1975); *Harvard Draft Convention on the Law of Treaties*, art. 28, 29 AM. J. INT'L L. 657, 662-63 (1935); *Helsinki Principles* 1.3 & cmt., *supra* note 120, at 499; Walker, *supra* note 216, at 66-68. *Compare* ARIE E. DAVID, *THE STRATEGY OF TREATY TERMINATION* 3-55 (1975); Oliver J. Lissitzyn, *Treaties and Changed Circumstances*, 61 AM. J. INT'L L. 895 (1967) (criticizing the Vienna Convention approach), *with* ELIAS, *supra* note 166, at 119-28 (the traditional *rebus sic stantibus* approach is no longer admissible today).

225. Vienna Convention, *supra* note 44, art. 60, at 346. *See also* Gabčíkovo-Nagymaros Project, 1997 I.C.J. at 39 (Art. 60 as a customary norm); Legal Consequences for States of the Continued Presence of South Africa in Namibia, 1971 I.C.J. 16, 47 (June 21); BROWNLIE, *supra* note 44, at 622-23; ILC REPORT, *supra* note 223, at 253-55; MCNAIR, *supra* note 44, 539-86; 1 OPPENHEIM, *supra* note 44, § 649; SINCLAIR, *supra* note 44, at 20, 166, 188-90.

226. Carin Kahghan, *Jus Cogens and the Inherent Right to Self-Defense*, 3 ILSA J. INT'L & COMP. L. 767, 827 (1997). *See also supra* note 166 and accompanying text.

227. Vienna Convention, *supra* note 44, arts. 53, 64, at 344, 347. *See also supra* note 166 and accompanying text.

228. The Vienna Convention does not provide for the operation of war, or armed conflict, on international agreements. Other authorities, however, agree that war may suspend or terminate treaties, depending on the nature of the treaty and the circumstances of the conflict. *E.g.*, *Clark v. Allen*, 331 U.S. 503, 513 (1947); *Karnuth v. United States*, 79 U.S. 231, 240-42 (1929); *Techt v. Hughes*, 128 N.E. 185, 191 (N.Y. 1920), *cert. denied*, 254 U.S. 643 (1920); ILC REPORT, *supra* note 223, at 267; 2 OPPENHEIM, *supra* note 112, §§ 99(4)-99(5); George B. Davis, *The Effects of War Upon International Conventions and Private Contracts*, 1927 PROC. AM. SOC'Y INT'L L. 124-29; G.G. Fitzmaurice, *The Judicial Clauses of the Peace Treaties*, 73 RECUEIL DES COURS DE L'ACADÉMIE DE DROIT INTERNATIONAL 255, 307-17 (1948); *Harvard Draft Convention on the Law of Treaties*, *supra* note 224, art. 35(b), at 664-64; Cecil J.B. Hurst, *The Effect of War on Treaties*, 2 BRIT. Y.B. INT'L L. 37, 40 (1921); Institut de Droit International, *The Effects of Armed Conflict on Treaties*, Aug. 28, 1985, arts. 2, 3, 5, 11, 61(2) ANNUAIRE 278, 280-82

the latter principle is in the LOS conventions, which reflect custom at least as to their high seas navigation articles;²²⁹ the conventions' "other rules" clauses, repeated in the navigational articles,²³⁰ have been almost universally said to mean the LOS is

(1986); Institut de Droit International, *Regulations Regarding the Effect of War on Treaties*, 1912, arts. 1, 4, 7-10, reprinted in 7 AM. J. INT'L L. 153-55 (1913); James J. Lenoir, *The Effect of War on Bilateral Treaties, with Special Reference to Reciprocal Inheritance Treaty Provisions*, 34 GEO. L.J. 129, 173-77 (1946); Schmitt, *Bellum*, *supra* note 36, at 1087; Walker, *supra* note 216, at 68-71. IW may be a stressor on these principles. See Schmitt, *Bellum*, *supra* note 36, at 1085-87. Impossibility or fundamental change of circumstances claims may overlap war suspension or termination claims. Impossibility, fundamental change, etc. are the only bases for termination or suspension of treaty relations between belligerents and neutrals. Herbert W. Briggs, *The Attorney General Invokes Rebus Sic Stantibus*, 36 AM. J. INT'L L. 89 (1942); Lissitzyn, *supra* note 224, at 911; Walker, *supra* note 216, at 68-69.

229. Cf. High Seas Convention, *supra* note 44, pmbl., 13 U.S.T. at 2314, 450 U.N.T.S. at 82. States have recognized that the navigational articles in UNCLOS, *supra* note 44, also restate custom. For example, in 1983 the United States claimed a 200-mile exclusive economic zone (EEZ) in accordance with UNCLOS. Proclamation No. 5030, 48 Fed. Reg. 10605 (Mar. 10, 1983). In 1988 it claimed a 12-mile territorial sea in accordance with UNCLOS. Proclamation No. 5928, 54 Fed. Reg. 777 (Dec. 27, 1988). In 1999 it claimed a 24-mile contiguous zone, also reflecting UNCLOS. Proclamation No. 7219, 64 Fed. Reg. 48701 (Aug. 8, 1999). See also *supra* note 44 and accompanying text.

230. Compare, e.g., UNCLOS, *supra* note 44, pmbl. (matters not regulated by Convention continue to be governed by the rules and principles of international law), arts. 2(3) (territorial sea), 19(1), 21(1), 31 (innocent passage), 34(2) (straits transit passage), 58(1), 58(3) (EEZs), 78(2) (continental shelf; coastal state cannot infringe or interfere with "navigation and other rights and freedoms of other States as provided in this Convention"), 87(1) (high seas), 138 (the Area), 303(4) (archaeological, historical objects found at sea; "other international agreements and rules of international law regarding the protection of objects of an archaeological and historical nature"), 1833 U.N.T.S. at 398, 400, 404-05, 408, 410, 419, 431-32, 446, 517, with, e.g., High Seas Convention, *supra* note 44, art. 2, 13 U.S.T. at 2314, 450 U.N.T.S. at 82; Convention on the Territorial Sea and Contiguous Zone, Apr. 29, 1958, arts. 1(2), 14(4), 17, 22(2), 15 U.S.T. 1606, 1608, 1610, 1611, 1612, 516 U.N.T.S. 205, 206-08, 214, 216, 220 [hereinafter Territorial Sea Convention]. Although other 1958 conventions do not have other rules clauses, they say they do not affect the status of waters above that are part of the high seas, the continental shelf, or other high seas rights, for high seas fisheries. Convention on the Continental Shelf, Apr. 29, 1958, arts. 1, 3, 15 U.S.T. 471, 473, 499 U.N.T.S. 311, 312, 314 [hereinafter Continental Shelf Convention]; Convention on Fishing and Conservation of Living Resources of the High Seas, Apr. 29, 1958, arts. 1-8, 13, 17 U.S.T. 138, 140-43, 559 U.N.T.S. 285, 286-92, 296 [hereinafter Fishery Convention]; Territorial Sea Convention, *supra*, art. 24(1), 15 U.S.T. at 1612, 516 U.N.T.S. at 220 (contiguous zone). Thus the High Seas Convention regime, including its Article 2 other rules provision, is incorporated by reference into these Conventions, which modify some High Seas Convention principles but not the Article 2 other rules clause. UNCLOS, *supra* note 44, art. 33, 1833 U.N.T.S. at 409 (governing the contiguous zone, which refers to an ocean belt contiguous to the territorial sea that is part of the high seas except when declared EEZ, the fishing or continental shelf areas, and those areas otherwise subject to the high seas regime).

subject to the LOAC in appropriate situations.²³¹ The same might be said for the human rights conventions, to the extent they might apply in IW situations; those treaties' derogation clauses may limit their applicability during armed conflict.²³²

231. INT'L LAW COMM'N, COMMENTARY ON VIENNA CONVENTION ON THE LAW OF TREATIES, REPORT OF THE COMMISSION TO THE GENERAL ASSEMBLY, U.N. Doc. A/6309/Rev. 1 (1966), reprinted in [1966] 2 Y.B. Int'l L. Comm'n 267-68, U.N. Doc. A/CN.4/SER.A/1966/Add.1; 2 GEORGE SCHWARZENBERGER, A MANUAL OF INTERNATIONAL LAW 376-77 (1967); Boleslaw Boczek, *Peaceful Purposes Provisions of the United Nations Convention on the Law of the Sea*, 20 OCEAN DEV. & INT'L L. 359 (1989); Herbert W. Briggs, *Unilateral Denunciation of Treaties: The Vienna Convention and the International Court of Justice*, 68 AM. J. INT'L L. 51 (1974); Carl Q. Christol & C.R. Davis, *Maritime Quarantine: The Naval Interdiction of Offensive Weapons and Associated Material to Cuba, 1962*, 56 AM. J. INT'L L. 525, 539-40 (1963); Scott Davidson, *Unites States Protection of Reflagged Kuwaiti Vessels in the Gulf War: The Legal Implications*, 4 INT'L J. ESTUARINE & COASTAL L. 173, 178 (1989); W.J. Fenrick, *Legal Aspects of Targeting in the Law of Naval Warfare*, 1991 CAN. Y.B. INT'L L. 238, 245; *Helsinki Principles* 1.1, 3.1 & cmts., *supra* note 120, at 498, 504; Lowe, *supra* note 44, at 132; Bernard H. Oxman, *The Regime of Warships Under the United Nations Convention on the Law of the Sea*, 24 VA. J. INT'L L. 809, 811 (1984); Ronzitti, *supra* note 121, at 15; Francis V. Russo, *Neutrality at Sea in Transition: State Practice in the Gulf War as Emerging International Customary Law*, 19 OCEAN DEV. & INT'L L. 381, 384 (1988); A.G.Y. Thorpe, *Mine Warfare at Sea—Some Legal Aspects of the Future*, 18 OCEAN DEV. & INT'L L. 255, 257 (1987); Wolfrum, *supra* note 153, at 391-92.

Apparent dissenters include the following: 1 E.D. BROWN, THE INTERNATIONAL LAW OF THE SEA 280 (1994) ("[F]reedom of the high seas must be exercised under conditions . . . in the Convention and by other unspecified rules of international law."); 2 O'CONNELL, *supra* note 44, at 1112-13 (referring to 1 O'CONNELL 747-69 in the merchantman nationality context); Luan Low & David Hodgkinson, *Compensation for Wartime Environmental Damage: Challenges to International Law After the Gulf War*, 35 VA. J. INT'L L. 405, 421 (1995) (discussing environmental protection obligations but saying nothing about the clauses, although elliptically seeming to recognize the principle); Margaret T. Okorodudu-Fubara, *Oil in the Persian Gulf War: Legal Appraisal of an Environmental Disaster*, 23 ST. MARY'S L.J. 123, 195-97 (1991); Elmer Rauch, The Protocol Additional to the Geneva Conventions for the Protection of Victims of International Armed Conflicts and the United Nations Convention on the Law of the Sea: Repercussions on the Law of Naval Warfare, Report to the Committee on the Protection of Human Life in Armed Conflict of the Society for Military Law of War 22-49a (July 1983) (manuscript on file with author).

232. *E.g.*, International Convention on Civil and Political Rights, Dec. 16, 1966, arts. 4, 19(3)(b) (derogation clauses), 17 (forbidding interference with correspondence), 19 (freedom of expression), 999 U.N.T.S. 171, 174, 177, 178; European Convention for Protection of Human Rights and Fundamental Freedoms, Nov. 4, 1950, arts. 6(1), 8(2), 10(2) (derogation clauses), 8(1) (correspondence), 10 (right of free expression regardless of frontiers), 213 U.N.T.S. 221, 228, 230; American Convention on Human Rights, Nov. 22, 1969, art. 13(2)(b), 27 (derogation clauses), 13 (freedom of expression regardless of frontiers), 14 (right of reply), 9 I.L.M. 673, 679-80, 683 (1970). Banjul [African] Charter on Human and Peoples' Rights, June 27, 1981, art. 9 (rights to receive information, disseminate opinions within the law), 21 I.L.M. 58, 60 (1982) (no derogation clause; it would be subject, however, to law of treaties principles on impossibility of performance, etc.). *See also* SUBRATRA ROY CHOWDHURY, RULE OF LAW IN A STATE OF EMERGENCY: THE PARIS MINIMUM STANDARDS OF HUMAN RIGHTS NORMS IN A STATE OF EMERGENCY 12-13, 22-29, 59, 121-25, 210-11(1989) (analyzing International

Current international agreements governing telecommunications without similar derogation clauses must be read in light of the law of treaties principles governing suspension or termination.²³³

Three further points must be made on war's influence on treaties. First, treaty suspension or termination because of war only applies as to parties to the conflict; however, other states—neutrals—may invoke other law of treaties doctrines, such as impossibility or fundamental change of circumstances, for suspension or termination claims. Second, armed conflict does not end or suspend treaties governing the LOAC, such as the 1907 Hague Conventions, which includes the law of neutrality.²³⁴

Law Association Minimum Standards of Human Rights Norms in a State of Emergency [1984]); MYRES S. MCDUGAL ET AL., HUMAN RIGHTS AND WORLD PUBLIC ORDER 813-15 (1980); Joan Fitzpatrick, *Protection Against Abuse of the Concept of "Emergency,"* in HUMAN RIGHTS: AN AGENDA FOR THE NEXT CENTURY 203 (Louis Henkin & John Lawrence Hargrove eds., 1994); Louis Henkin, *International Human Rights as "Rights,"* 1 CARDOZO L. REV. 446-47 (1979); Universal Declaration of Human Rights, G.A. Res. 217, U.N. GAOR, 3d Sess., Supp. No. 13, arts. 12, 19, 27, U.N. Doc. A/810 (1948), reprinted in DIETRICH RAUSCHNING ET AL., KEY RESOLUTIONS OF THE UNITED NATIONS GENERAL ASSEMBLY 1946-1996 at 321-22 (1997). The I.C.J. in Nuclear Weapons observed:

[T]hat the protection of the [Civil & Political Rights Convention, *supra*, referred to in the opinion as the Covenant] . . . does not cease in times of war, except by operation of Article 4 of the Covenant whereby certain provisions may be derogated from in a time of national emergency. Respect for the right to life is not . . . such a provision [T]he right not arbitrarily to be deprived of one's life applies also during hostilities [W]hat is an arbitrary deprivation of life . . . then falls to be determined by the applicable *lex specialis*, . . . the [LOAC] . . . designed to regulate the conduct of hostilities. Thus whether a particular loss of life, through use of a certain weapon in warfare, is to be considered an arbitrary deprivation of life contrary to . . . the Covenant, can only be decided by . . . the [LOAC] and not . . . from the terms of the Covenant

Nuclear Weapons, 1996 I.C.J. 226, 239-40 (July 8). To the extent human rights treaty norms represent custom, law of treaties analysis does not apply. Derogations from custom like the persistent objector rule, however, do and will apply to Declaration norms having status as custom. *See infra* note 238. "The United States has long denied that any obligation rests upon it when a neutral to attempt to control expressions of opinion by private persons within its territory and adverse to the cause of any belligerent," although the U.S. government has appealed to its citizenry to refrain from partisanship during war. 3 HYDE, *supra* note 53, § 874, at 2312.

233. *See, e.g.,* GREENBERG ET AL., *supra* note 1, at 18-21; OFFICE OF GENERAL COUNSEL, U.S. DEPT OF DEFENSE, AN ASSESSMENT OF INTERNATIONAL LEGAL ISSUES IN INFORMATION OPERATIONS 36-38 (1999); Aldrich, *supra* note 1, at 254-55 (treaties to which the United States is party, noting derogation for military uses); Scott, *supra* note 41, at 62-64 (interface of U.S. law with telecommunications treaties). These include the International Telecommunication Convention, Nov. 6, 1982, and its successor, Constitution and Convention of International Telecommunications Union, Dec. 12, 1992, to which the United States is party. U.S. DEPT OF STATE, *supra* note 124, at 463-64. Bilateral treaties may govern a particular situation.

234. *See, e.g.,* Hague V and Hague XIII, *supra* note 219; Maritime Neutrality Convention, *supra* note 128.

Third, armed conflict does not end or suspend humanitarian law treaties applying during war,²³⁵ such as the 1949 Geneva Conventions.²³⁶

Besides the treaty matrix applying to an armed conflict situation, a decision-maker must consider customary law, perhaps recited in treaties, general principles of law, or secondary sources, such as judicial decisions and highly qualified publicists' research.²³⁷ These sources, particularly custom, are not subject to treaty interpretation principles or other features of treaty law, for example denunciation.²³⁸

5. Conclusions

The overwhelming weight of authority is that neutrality continues in the Charter era. If so, the concept applies in the IW context as well. Although most countries today do not recognize an intermediate stage of non-belligerency, that principle, if it is considered law, would also apply during IW situations.

States also retain an inherent right of individual or collective self-defense through treaties or by informal arrangement, at least

235. 5 HACKWORTH, *supra* note 112, § 513, at 383-84; 2 OPPENHEIM, *supra* note 112, §§ 99(2), 99(5); Fitzmaurice, *supra* note 228, at 312; *Harvard Draft Convention on the Law of Treaties*, *supra* note 224, art. 35(a), at 664; Hurst, *supra* note 228, at 42; Institut de Droit International, *The Effects of Armed Conflict on Treaties*, *supra* note 228, arts. 3-4, at 280; Institut de Droit International, *Regulations Regarding the Effect of War on Treaties*, *supra* note 228, art. 5, at 154; Walker, *supra* note 216, at 70. A state cannot invoke material breach to suspend or terminate a humanitarian law treaty, especially its reprisal provisions. Vienna Convention, *supra* note 44, art. 60(5), at 346. *See also supra* note 225 and accompanying text.

236. First Convention, *supra* note 213; Second Convention, *supra* note 213; Third Convention, *supra* note 127; Fourth Convention, *supra* note 213.

237. *See generally* I.C.J. STATUTE arts. 38(1), 59; RESTATEMENT (THIRD) OF FOREIGN RELATIONS §§ 102-03; BROWNLIE, *supra* note 44, at 1-30; 1 OPPENHEIM, *supra* note 44, §§ 8-17.

238. *Cf.* THEODOR MERON, HUMAN RIGHTS AND HUMANITARIAN NORMS AS CUSTOMARY LAW 3-10 (1989). Custom may be subject to its own limiting doctrines, for example the malleability of custom through time and the persistent objector rule. RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 102 cmts. b, d; BROWNLIE, *supra* note 44, at 10; 1 OPPENHEIM, *supra* note 44, § 10, at 29; Michael Akehurst, *Custom As a Source of Law*, 47 BRIT. Y.B. INT'L L. 1, 23-27; C.H.M. Waldock, *General Course on Public International Law*, 106 RECUEIL DES COURS DE L'ACADEMIE DE DROIT INTERNATIONAL 1, 49-52 (1962). *But see* Charney, *supra* note 199, at 538-41 (stating that the existence of the persistent objector rule is open to serious doubt). Roach and Smith present an exhaustive study of protests to LOS claims and demonstrate that the persistent objector rule is alive and well, at least for LOS issues. J. ASHLEY ROACH & ROBERT W. SMITH, UNITED STATES RESPONSES TO EXCESSIVE MARITIME CLAIMS (2d ed. 1996). Undoubtedly states file thousands of protests annually on many issues in the chancelleries, few if any of which are published. It cannot be assumed that the persistent objector rule is in disuetude.

until and insofar as the Council acts pursuant to Article 51.²³⁹ Self-defense responses in the IW context are always subject to limiting considerations of necessity and proportionality, and for anticipatory self-defense, where the situation admits of no other alternative. In IW situations, states may also respond with reprisals not involving use of force, retorsions, or under the necessity doctrine.

Charter-based commands, like Security Council decisions pursuant to Articles 25 and 48 of the Charter, may supersede any international agreement governing neutrality in the IW context, as in any situation. Neutrality principles, whether published in treaties or stated in custom, are subject to factorial analysis, like all sources of international law, and this is true in the IW context as well. Principles of the law of treaties—for example, impossibility of performance, fundamental change of circumstances or armed conflict²⁴⁰—may suspend or terminate some agreements dealing with Internet communications.

B. Principles of the Law of Neutrality

Apart from considerations of the possibility of a principle of non-belligerency (a status most scholars do not recognize today),²⁴¹ the law of neutrality defines a legal relationship between countries engaged in war (belligerents) and countries not taking part in a war (neutrals).²⁴² Neutrality ends with the war's end.²⁴³ Some countries, such as Austria, Cambodia, Laos, and Switzerland, enjoy internationally recognized permanent neutrality.²⁴⁴ Others, like Finland, the Holy See, Ireland, and

239. U.N. CHARTER art. 51.

240. Treaties governing humanitarian law, the LOAC or neutrality are not ended or suspended, however. See *supra* notes 225, 235 and accompanying text.

241. See *supra* notes 124-67 and accompanying text.

242. NWP 1-14M ANNOTATED, *supra* note 37, para. 7.1.

243. 2 OPPENHEIM, *supra* note 112, § 312.

244. Austria declared permanent neutrality by parliamentary resolution and constitutional federal statute after agreeing with the USSR that it would proclaim and practice neutrality on the Swiss model. See U.S. SENATE FOREIGN RELATIONS COMM., S. EXEC. REP. NO. 8, 84th Cong., 1st Sess. (1955), reprinted in 1 HISTORICAL OFFICE, U.S. DEP'T OF STATE, AMERICAN FOREIGN POLICY, 1950-1955: BASIC DOCUMENTS 682, 687-88 (1957); *Recognition of Austrian Neutrality*, 33 DEP'T ST. BULL. 1011 (1955); Alfred Verdross, *Austria's Permanent Neutrality and the United Nations*, 50 AM. J. INT'L L. 61 (1956). Treaties neutralized Laos and Cambodia; Canada, China, France, the United Kingdom, the United States, and the former USSR are among treaty parties. Declaration and Protocol on Neutrality of Laos, July 23, 1962, 14 U.S.T. 1104, 456 U.N.T.S. 301; Agreement on Ending the War and Restoring Peace in Viet-Nam, Jan. 27, 1973, art. 20(a), 24 U.S.T. 1, 19; Act of International Conference on Viet-Nam, Mar. 2, 1973, art. 8, 24 U.S.T. 485, 489, 935 U.N.T.S. 405, 408. The treaties may apply to more states through treaty succession principles. See generally Declaration of Vienna, Mar. 20, 1815,

Sweden, have proclaimed neutrality and are not defensive alliance members.²⁴⁵ Costa Rica, a Rio Treaty²⁴⁶ and OAS²⁴⁷ member, has proclaimed a policy of "permanent," "unarmed" neutrality.²⁴⁸ In effect, these countries have adopted a policy of neutrality for all future wars. For the overwhelming majority of states, however,

64 Consol. T.S. 5; Act of Accession of the Swiss Cantons, May 27, 1815, 64 Consol. T.S. 11; Act of Congress of Vienna, June 9, 1815, art. 84, 64 Consol. T. S. 453, 483; Definitive Treaty of Peace, Nov. 20, 1815, Consol. T. S. 251 (appending Public Act for Recognition and Guarantee of the Perpetual Neutrality of Switzerland and the Inviolability of its Territory, Nov. 20, 1815, 65 Consol. T.S. 299 and Extract of Protocol of Plenipotentiaries, Nov. 3, 1815, 65 Consol. T.S. 300); Symposium, *supra* note 216; Walker, *supra* note 216. Switzerland's neutrality is a vestige of the Congress of Vienna system that dominated Europe from Napoleon's defeat in 1815 to the Crimean War in 1854. The Treaty of Peace, June 28, 1919, art. 435, 225 Consol. T.S. 188, 388 [hereinafter Treaty of Versailles] (recognizing Swiss neutrality). Several nations, for example Belgium, Independent State of the Congo, and Luxembourg, were once neutralized but are not neutral today. See 1 HYDE, *supra* note 53, § 29; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.2, at 368 n.13; 2 OPPENHEIM, *supra* note 112, §§ 300, 323, at 688; Verdross, *supra*, at 62-64; Walker, 31 CORNELL INT'L L.J., *supra* note 139, at 324-28; Walker, in THE LAW OF MILITARY OPERATIONS, *supra* note 139, at 366-68.

245. See generally SAMUEL ABRAHAMSEN, SWEDEN'S FOREIGN POLICY 10-30 (1957); GORDON BROOK-SHEPHERD, THE AUSTRIANS: A THOUSAND-YEAR ODYSSEY 396-413 (1996); GABRIEL, *supra* note 112 (Swedish neutrality); ALVIN JACKSON, IRELAND 1798-1998 at 301-03, 310, 332 (1999); NWP 1-14M ANNOTATED, *supra* note 37, para. 7.2, at 368 n.13; L.A. PUNTILA, THE POLITICAL HISTORY OF FINLAND 220-33 (1975); ROSS, *supra* note 112 (Swedish neutrality); FRANKLIN D. SCOTT, SWEDEN: THE NATION'S HISTORY 468-75, 501-13, 544 (1977) (Swedish neutrality). Treaty of Friendship, Co-Operation and Mutual Assistance, Apr. 6, 1948, Fin.-U.S.S.R., 48 U.N.T.S. 149, is the foundation of Finland's neutrality. Wilhelm Wachtmeister, *Neutrality and International Order*, 43 NAVAL WAR C. REV., Spring 1990, at 105 (Austrian, Finnish, Swedish, Swiss neutrality). Nordic Neutrality Rules, *supra* note 130, apply to Finland and Sweden and are in effect for other states such as Denmark, Iceland, and Norway, parties to the North Atlantic Treaty, Apr. 4, 1949, 63 Stat. 2241, 34 U.N.T.S. 243, amended by Protocol on Accession of Greece and Turkey, Oct. 17, 1951, 3 U.S.T. 43, 126 U.N.T.S. 350). See also Protocol on Accession of Federal Republic of Germany, Oct. 23, 1954, 6 U.S.T. 5707, 243 U.N.T.S. 308; Protocol on Accession of Spain, Dec. 10, 1981, T.I.A.S. No. 10564. The Rules may condition these countries' responses. Bring, *supra* note 129, at 842. However, when it applies, Charter law, for example, the right of self-defense under U.N. Charter, art. 51, would govern. See *supra* notes 124, 169-74 and accompanying text.

246. Rio Treaty, *supra* note 183; U.S. DEP'T OF STATE, *supra* note 124, at 364. See also *supra* note 183.

247. Charter of Organization of American States, Apr. 30, 1948, 2 U.S.T. 2394, 119 U.N.T.S. 3, amended by Protocol, Feb. 27, 1967, 21 U.S.T. 607; Protocol, Dec. 5, 1985, 21 I.L.M. 533 (1985) [hereinafter OAS Charter]. See also M. MARGARET BALL, THE OAS IN TRANSITION (1969); GORDON CONNELL-SMITH, THE INTER-AMERICAN SYSTEM (1966); O. CARLOS STOETZER, THE ORGANIZATION OF AMERICAN STATES (2d ed. 1993); ANN VAN WYNEN THOMAS & A.J. THOMAS, JR., THE ORGANIZATION OF AMERICAN STATES (1963); Charles G. Fenwick, *The Inter-American System: Fifty Years of Progress*, 50 AM. J. INT'L L. 18 (1956).

248. Costa Rica has said it will rely on Rio Treaty, *supra* note 183, and OAS Charter, *supra* note 247, assistance if invaded. NWP 1-14M ANNOTATED, *supra* note 37, para. 7.2, at 368 n.13; *Costa Rica Proclaims Neutrality*, N.Y. TIMES, Nov. 18, 1983, at A12.

neutral status arises when they proclaim neutrality, usually at the outbreak of hostilities.²⁴⁹ This ad hoc form of neutrality exists for a particular war, although it may be expanded or reduced as a conflict widens or narrows. Countries may proclaim neutrality for part of their territory.²⁵⁰ Status as a neutral remains effective until the neutral abandons neutral status and enters a war as a belligerent,²⁵¹ or when a belligerent begins war against a neutral.²⁵² All states—permanent neutrals, ad hoc neutrals or belligerents—have rights of individual or collective self-defense or other lawful responses, such as nonforce reprisals and retorsions, regardless of neutral or belligerent status.²⁵³ Thus, Switzerland, Sweden or Costa Rica may respond in individual or collective self-defense against aggression.²⁵⁴ Neutrals that are U.N. members must obey U.N. laws that are binding on them, such as Security Council decisions.²⁵⁵

Under traditional customary law, any country may refrain from participating in an armed conflict or war by declaring neutrality or otherwise assuming neutral status.²⁵⁶ The LOAC

249. For example, the United States and other countries proclaimed neutrality for the 1982 Falklands-Malvinas War, although they aided the aggressor in that conflict. See *supra* notes 163, 183 and accompanying text. In some cases there may be a joint proclamation or perhaps reaffirmation of neutrality, for example General Declaration, *supra* note 130, para. 1, at 604. The Nordic Neutrality Rules, *supra* note 130, pmb., 188 L.N.T.S. at 695, declared in advance neutrality principles that the five countries would follow.

250. 2 OPPENHEIM, *supra* note 112, § 301.

251. NWP 1-14M ANNOTATED, *supra* note 37, para. 7.2, at 368; 2 OPPENHEIM, *supra* note 112, § 295; TUCKER, *supra* note 112, at 202.

252. 2 OPPENHEIM, *supra* note 112, § 312, at 672. A neutral can exercise rights of individual or collective self-defense. U.N. CHARTER art. 51. See also *supra* notes 125, 159-64 and accompanying text.

253. See *supra* notes 124, 159-64, 175-81 and accompanying text.

254. *Helsinki Principles* 1.2 & cmt., *supra* note 120, at 499.

255. U.N. CHARTER arts. 25, 48, 103. See also *supra* notes 124, 190, 194 and accompanying text.

256. NWP 1-14M ANNOTATED, *supra* note 37, para. 7.2. This principle is subject to modification if a state is a U.N. Member, and the Security Council decides on action pursuant to U.N. Charter, arts. 25, 48, 103. See also NWP 1-14M ANNOTATED, *supra* note 37, para. 7.2; *supra* notes 124, 190, 194 and accompanying text. U.N. Charter, art. 51 preserves the "inherent right of individual and collective self-defense," subject to a requirement of reporting to the U.N. Security Council of self-defense measures Members have taken. U.N. CHARTER art. 51. Article 52 authorizes regional arrangements or agencies to deal with maintaining international peace and security. *Id.* art. 52. The Council may authorize regional agency action and must be informed of action the regional agency takes. *Id.* arts. 53-54. Members, like all states, may join regional or collective security arrangements. See generally Walker, 31 CORNELL INT'L L.J., *supra* note 139, at 351-70; Walker, in THE LAW OF MILITARY OPERATIONS, *supra* note 139, at 381-92. The neutrality that a member of a regional or collective security arrangement may proclaim or exercise depends on what assistance parties to the arrangement must provide in a regional action or how they must come to the aid of a target member of a collective self-defense arrangement. "The practical effect

confers rights and duties on belligerents²⁵⁷ and neutrals.²⁵⁸ "The principal right of the neutral . . . is . . . inviolability; its principal duties are . . . abstention and impartiality. Conversely, it is the duty of a belligerent to respect the former and its right to insist on the latter."²⁵⁹

Absent considerations of Charter-based actions,²⁶⁰ international law prohibits belligerents' hostile acts in neutral territory, including a neutral's land, internal waters, territorial sea, and airspace, or using neutral territory as a sanctuary.²⁶¹ A neutral has a duty to prevent the use of its territory as a sanctuary or base of operations by belligerents and their forces.²⁶² The rule for neutral land territory is absolute; a neutral must not allow transit of troops by any belligerent.²⁶³ Under the law of naval warfare, neutrals must only use means at their disposal to prevent use of ports and roadsteads as bases of operations, and the same standard applies to intruding belligerent military aircraft.²⁶⁴ To the extent the land warfare

of such treaties may be to transform the right of the parties to assist one of their number under attack into a duty to do so. This duty may . . . range] . . . from economic assistance to the commitment of armed forces." NWP 1-14M ANNOTATED, *supra* note 37, para. 7.2.2.

257. One duty of a belligerent is to notify neutrals of a state of war. Convention Relative to the Opening of Hostilities, Oct. 18, 1907, art. 2, 36 Stat. 2259, 2271. Other duties may include reporting to the Security Council. U.N. CHARTER arts. 51, 54, 103. *See also* THE CHARTER OF THE UNITED NATIONS: A COMMENTARY, *supra* note 83, at 753-57; GOODRICH ET AL., *supra* note 83, at 368-69; *supra* notes 124, 188 and accompanying text.

258. 2 OPPENHEIM, *supra* note 112, § 295.

259. NWP 1-14M ANNOTATED, *supra* note 37, para. 7.2. *See also* Hague XIII, *supra* note 219, art. 6, 36 Stat. at 2428; Maritime Neutrality Convention, *supra* note 128, art. 15, 47 Stat. at 1993; 2 HOWARD S. LEVIE, THE CODE OF INTERNATIONAL ARMED CONFLICT 786 (1985); 2 OPPENHEIM, *supra* note 112, §§ 295-96, 297, 314; John Bassett Moore, *The New Isolation*, 27 AM. J. INT'L L. 607, 625 (1933).

260. U.N. CHARTER arts. 25, 48, 51-54, 103. *See also supra* notes 124, 168-74, 190, 194 and accompanying text.

261. Hague V, *supra* note 219, art. 1, 36 Stat. at 2322; Hague XIII, *supra* note 219, art. 2, 36 Stat. at 2427; Maritime Neutrality Convention, *supra* note 128, art. 3, 47 Stat. at 1991, 135 L.N.T.S. at 196; General Declaration, *supra* note 130, para. 3(a), at 605; Hague Air Rules, *supra* note 221, art. 40, at 214; Nordic Neutrality Rules, *supra* note 129, arts. 8-10, 11, 188 L.N.T.S. at 301, 308-09, 315, 321, 329. *See also* 3 HYDE, *supra* note 53, § 887; INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 17-18; 2 LEVIE, *supra* note 259, at 785; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3; U.S. DEP'T OF THE AIR FORCE, *supra* note 222, para. 2-6c; *Helsinki Principles* 1.4, *supra* note 120, at 500. Hague V and XIII are generally believed to restate custom. *See supra* note 220. Where the Maritime Neutrality Convention parallels their terms, it too can be assumed to restate custom. The Hague Air Rules are generally regarded as declaring customary law. *See supra* note 222.

262. *See infra* note 276 and accompanying text.

263. *See infra* note 278 and accompanying text.

264. Hague V, *supra* note 219, art. 5, 36 Stat. at 2323; Hague XIII, *supra* note 219, art. 25, 36 Stat. at 2432; Maritime Neutrality Convention, *supra* note

rule is a customary norm, the lesser standards for air and warfare may be subject to a claim that custom supersedes them.²⁶⁵ A neutral's use of force to prevent a belligerent from violating its territory is not a hostile act,²⁶⁶ however, it may subject the neutral to a belligerent's claim of a right to proportional self-defense,²⁶⁷ anticipatory self-defense,²⁶⁸ or that the neutral has violated the law of neutrality. The neutral also has a right of self-defense.²⁶⁹ If a neutral is unable or unwilling to effectively enforce its right of inviolability, an aggrieved belligerent may act proportionately and as necessary to counter enemy forces' actions, including actions by enemy warships and military aircraft making unlawful use of neutral territory.²⁷⁰ Today this

128, arts. 4(a), 26, 47 Stat. at 1991, 1994, 135 L.N.T.S. at 196, 208; General Declaration, *supra* note 130, para. 3(c), at 605; Hague Air Rules, *supra* note 221, arts. 42, 47, at 214-15; 3 HYDE, *supra* note 53, §§ 855, 856A, 888; 2 LEVIE, *supra* note 259, at 788; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3; 2 OPPENHEIM, *supra* note 112, §§ 316, 323, 325; TUCKER, *supra* note 112, at 260-61; U.S. DEPT OF THE AIR FORCE, *supra* note 222, para. 2-6c (air operations principle; Hague Air Rules not cited). *But see Helsinki Principles 2.2*, *supra* note 120, at 502 (neutral "must" take measures to enforce warship transit, sojourn rules).

265. I.C.J. STATUTE art. 38(1); RESTATEMENT (THIRD) OF FOREIGN RELATIONS §§ 102-03. *See also supra* note 237-38 and accompanying text.

266. Hague V, *supra* note 216, art. 10, 36 Stat. at 2324. *See also* Hague Air Rules, *supra* note 221, art. 48, at 215; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3 n.24. Hague XIII, *supra* note 219, art. 26, is less stringent, declaring that a neutral's exercising Convention rights, for example under Article 25, "can under no circumstances be considered an unfriendly act by [a] . . . belligerent who has accepted the articles relating thereto." Hague XIII, *supra* note 219, art. 26, at 2433.

267. U.N. CHARTER art. 51. *Compare* MCDUGAL & FELICIANO, *supra* note 112, at 406-07; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3; TUCKER, *supra* note 112, at 220-26, 256, 261-62; Bruce Harlow, *UNCLOS III and Conflict Management in Straits*, 15 OCEAN DEV. & INT'L L. 197, 204 (1985); Horace B. Robertson, Jr., *The "New" Law of the Sea and the Law of Armed Conflict at Sea*, in READINGS ON INTERNATIONAL LAW FROM THE NAVAL WAR COLLEGE REVIEW 262, 304 (John Norton Moore & Robert F. Turner eds., Naval War Coll. Int'l Law Studies vol. 68, 1995), with INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 22, 30. Since the advent of U.N. Charter, art. 51, and its trumping clause, art. 103, a right of self-defense asserted under the Charter takes priority over Hague V. Hague V, *supra* note 219, art. 10, 36 Stat. at 2324. If a parallel customary right of self-defense and a customary right for a neutral to prevent a territorial violation are claimed, issues of balancing sources of international law arise. *See* I.C.J. STATUTE arts. 38, 59; RESTATEMENT (THIRD) OF FOREIGN RELATIONS §§ 102-03. *See also supra* note 44 and accompanying text. If self-defense is a *jus cogens* norm, issues of trumping other sources arise. *See* Vienna Convention, *supra* note 44, arts. 53, 64, 1155 U.N.T.S. at 344, 347. *See also supra* notes 124, 166, 227 and accompanying text.

268. *See supra* notes 168-74 and accompanying text.

269. U.N. CHARTER arts. 51, 103. *See also* 2 LEVIE, *supra* note 259, at 787-88 (citing JAMES B. SCOTT, REPORTS TO THE HAGUE CONFERENCES OF 1899 AND 1907 at 548 (1917)); *supra* notes 124, 168-74 and accompanying text.

270. *Compare* 3 HYDE, *supra* note 53, § 837A; MCDUGAL & FELICIANO, *supra* note 112, at 406-07; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3; TUCKER, *supra* note 112, at 220-26, 256, 261-62; U.S. DEPT OF THE AIR FORCE, *supra* note

right is tempered by the Charter in that an aggrieved belligerent must be a target of an armed attack, actual or threatened, from neutral waters to exercise this power.²⁷¹

The LOAC treats neutrals' rights and duties differently, depending on the modality of warfare and the part of the Earth affected, such as neutral lands, neutral oceanic waters, the high seas, or neutral airspace. There is overlap among the different systems. While the law of naval warfare is primarily concerned with combat at sea, it also interfaces with land warfare—regarding radio transmission stations and undersea cable termini, for example—and air warfare—high seas overflight by warship-based or land-based aircraft. Today the possibility of armed conflict in space, particularly involving space-based communications that can invoke Internet use, cannot be discounted.

1. Neutrality and Land Warfare

Belligerents may not move troops or war materials and supplies across neutral land.²⁷² Neutrals may be required to mobilize sufficient armed forces to fulfill their responsibility to prevent belligerent forces and others from crossing neutral borders;²⁷³ belligerents' forces entering neutral territory must be disarmed and interned until war's end, if it is possible for the

222, para. 2-6c; Harlow, *supra* note 267, at 204; *Helsinki Principles* 1.4, 2.1, *supra* note 120, at 500-01; Robertson, *supra* note 267, at 304, with INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 22, 30.

271. Cf. *Helsinki Principles* 1.4 & cmt., *supra* note 120, at 500 (citing U.N. Charter, art. 2(4), *inter alia*, which would apply to the neutral's territory); Schindler, *supra* note 191, at 220. Schindler would limit responses to actual armed attack; however, if a right of individual or collective anticipatory self-defense exists in the Charter era, threat of attack may be enough to trigger a proportional self-defense response. See *supra* note 168 and accompanying text. *Helsinki Principles* take no position in the anticipatory self-defense debate.

272. A neutral is not required to prohibit passage of enemy nationals intending to join enemy forces, but a neutral must bar passage of officially organized bodies of combatants and organization of expeditionary forces on its territory. Hague V, *supra* note 219, art. 2, 6, 36 Stat. at 2322-22; General Declaration, *supra* note 130, para. 3(c), at 605; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3.1; 2 OPPENHEIM, *supra* note 112, §§ 318, 323, 331. Belarus' and Russia's attempted movement of arms and fuel across NATO member Hungary technically did not invoke the law of neutrality. See *supra* note 10 and accompanying text. Hungary was a NATO member, and NATO was prosecuting the air campaign against the former Yugoslavia. See *supra* notes 3-11 and accompanying text.

273. Hague V, *supra* note 219, art. 5, 36 Stat. at 2323; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3.1.

neutral to do so.²⁷⁴ The same rules apply to war material of land forces brought into neutral territory.²⁷⁵

Neutrals have a correlative obligation, grounded in the principle of impartiality, not to assist belligerents by supplying troops, war material, or the means of producing war material, or by allowing them to occupy or erect forts or to use neutral territory.²⁷⁶ This obligation is subject to other considerations, such as lawful assistance to a belligerent that is a target of aggression.²⁷⁷ Belligerent troop or supply movements across neutral borders might support claims of violating a neutral's territorial integrity²⁷⁸ and a neutral's right of self-defense.²⁷⁹

274. Hague V, *supra* note 219, art. 11, 36 Stat. at 2324; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3.1. Neutrals may allow passage of belligerent forces' sick or wounded at the belligerent's request. Hague V, *supra* note 219, art. 14, 36 Stat. at 2325; 2 OPPENHEIM, *supra* note 112, §§ 324, 338-39. Escaped prisoners of war may be allowed asylum or return to their country. Hague V, *supra* note 219, art. 13, 36 Stat. at 2324; 2 OPPENHEIM, *supra* note 112, § 337.

275. 2 OPPENHEIM, *supra* note 112, § 341.

276. The rule against supplying a belligerent can be evaded by neutral nationals' contracting to supply the belligerent. Hague XIII, *supra* note 219, arts. 6-7, 36 Stat. at 2428; The Santissima Trinidad, 20 U.S. (7 Wheat.) 283, 340 (1822); 3 HYDE, *supra* note 53, § 848; 2 OPPENHEIM, *supra* note 112, §§ 321, 326, 329, 334. Neutrals must prevent the outfitting of ships destined for naval operations to a belligerent's order by means at their disposal. Hague XIII, *supra* note 219, art. 8, 36 Stat. at 2428. *See also* Nordic Neutrality Rules, *supra* note 130, art. 15(1), 188 L.N.T.S. at 303, 309, 317, 323, 331; Treaty of Washington, May 8, 1871, art. 6, 17 Stat. 863, 865; COLOMBOS, *supra* note 44, § 721; 3 HYDE, *supra*, §§ 882-83; 2 OPPENHEIM, *supra* note 112, §§ 334-35a; Schindler, *supra* note 191, at 218. Similar rules apply to supplying aircraft that can be used for belligerents' air war. Hague Air Rules, *supra* note 221, arts. 45-46, at 214; Nordic Neutrality Rules, *supra* note 130, art. 15(2), 188 L.N.T.S. at 303, 310, 317, 323, 331. During World War II some states enforced this in neutrality proclamations. 11 WHITEMAN, *supra* note 112, at 232.

277. A neutral member of a collective self-defense alliance, permitted by U.N. Charter, art. 51, may assist an alliance member that is a target of aggression by joining the self-defense response. If that occurs, whatever neutrality the assisting state might have claimed is lost; it becomes a co-belligerent against the aggressor. On the other hand, it is possible for a neutral member to declare neutrality and confine responses to retorsions and nonforce reprisals. This may violate the alliance treaty, but that is a matter between the neutral and the target of aggression. *See supra* notes 124-86 and accompanying text.

278. U.N. CHARTER arts. 2(4), 103. *See also supra* notes 116, 124, 180 and accompanying text.

279. U.N. CHARTER arts. 51, 103. *See also supra* notes 116, 124, 168-74 and accompanying text. If a belligerent attacks enemy forces taking refuge on neutral territory, or these forces are there for other purposes, this is not hostilities against a neutral, "but . . . mere violations of neutrality; and they must be repulsed, or reparation must be made for them . . ." 2 OPPENHEIM, *supra* note 112, § 320, at 685. Besides being a neutrality law violation, it is submitted that an attacking belligerent, unless proceeding under a necessity theory, commits a U.N. Charter, art. 2(4) violation, rendering it susceptible to an invaded neutral's self-defense or other responses. *Cf.* 1 OPPENHEIM, *supra* note 44, § 326. *See also supra* notes 116, 124, 168-81 and accompanying text.

Under Hague V, Art. 3, and Hague XIII, Art. 5, the latter applying to naval warfare, belligerents may not:

- (a) Erect on the territory of a neutral Power a wireless telegraphy station or other apparatus for . . . communicating with belligerent forces on land or sea; [or]
- (b) Use any installation of this kind established by them before the war on the territory of a neutral Power for purely military purposes, and which has not been opened for the service of public messages.²⁸⁰

Hague V imposes an unqualified duty, and Hague XIII, governing maritime neutrality, requires a neutral to use "such surveillance as the means at its disposal allow" to prevent violations.²⁸¹ The difference may lie in the reality (as of 1907 and today) that while nearly all countries have military or other forces to repel transit of troops, not every state has naval forces sufficient to drive out intruding belligerent naval forces. In some instances a neutral may not even have a navy or one capable of detecting some belligerent intruders, for example, submarines. Under Hague V, Articles 8-9:

A neutral Power is not called upon to forbid or restrict the use on behalf of the belligerents of telegraph or telephone cables or of wireless telegraphy apparatus belonging to it or to companies or private individuals Every measure of restriction or prohibition . . . must be impartially applied . . . to both belligerents.

A neutral Power must see to the same obligation being observed by companies or . . . individuals owning telegraph or telephone cables or wireless telegraphy apparatus.²⁸²

The 1923 Hague Radio Rules echo these principles, adding that belligerent mobile radio stations must abstain from using their

280. Hague V, *supra* note 219, art. 3, 36 Stat. at 2322. Compare *id.*, with Hague XIII, *supra* note 219, art. 5, 36 Stat. at 2427. See also Maritime Neutrality Convention, *supra* note 128, art. 4(b), 47 Stat. at 1991, 135 L.N.T.S. at 196 (same as Hague XIII); Nordic Neutrality Rules, *supra* note 130, arts. 12-13, 188 L.N.T.S. at 301-02, 309-10, 315, 323, 329.

281. Compare Hague V, *supra* note 219, art. 5, 36 Stat. at 2323-24, with Hague XIII, *supra* note 219, art. 25, 36 Stat. at 2432. See also Maritime Neutrality Convention, *supra* note 128, art. 26, 47 Stat. at 1994, 135 L.N.T.S. at 208; General Declaration, *supra* note 130, para. 3(c), at 605; *Draft Convention on Rights and Duties of Neutral States in Naval and Aerial War*, art. 6, 33 AM. J. INT'L L. 175, 245 (Supp. 1939) [hereinafter *Harvard Draft Neutrality Convention*]; 3 HYDE, *supra* note 53, § 856B; 2 LEVIE, *supra* note 259, at 791; 2 OPPENHEIM, *supra* note 112, § 363.

282. Hague V, *supra* note 219, arts. 8-9, 36 Stat. at 2323-24. See also COLOMBOS, *supra* note 44, §§ 579, 716; 2 OPPENHEIM, *supra* note 112, § 363 (neutrals' emissions control practice during World Wars I and II). But see GREENBERG ET AL., *supra* note 1, at 28; LEVIE, *supra* note 259, at 123 (World War II belligerents took advantage of Portugal's neutrality and perhaps the neutrality of Switzerland and Turkey).

apparatus.²⁸³ Many neutrals issued regulations supervising activities of radio stations, etc. As one treatise analyzes the problem:

Since . . . everything is left to the discretion of the neutral . . . it will have to take the merits and needs of every case into consideration, and act accordingly [A] belligerent has no right to insist that neutral States should forbid or restrict such employments of their . . . wires, etc., on the part of his adversary. On the other hand, their duty of impartiality must compel neutral[s] . . . to prevent the dispatch from their territory of wireless messages sent to enable belligerent cruisers outside the neutral territorial waters to watch for and capture . . . vessels which have been within those waters, or any other wireless messages through the sending of which their neutral territory becomes a base of naval or military operations for [a] . . . belligerent.²⁸⁴

If a belligerent intends to arrange transmission of messages through a cable laid for military communications over neutral territory, or through telegraph or telephone lines for that purpose on neutral territory, "[t]his would seem to be an abuse of neutral territory, and the neutral is under a duty to prevent it."²⁸⁵ If a belligerent establishes a military communication station on neutral territory before war begins, that station cannot be used during the subsequent war.²⁸⁶ Similarly, a neutral cannot allow belligerents to establish intelligence offices within its territory.²⁸⁷

Hague V also provides that belligerents may not requisition railway rolling stock of companies chartered by a neutral state except if absolutely necessary.²⁸⁸ If a private company chartered

283. Compare Commission of Jurists to Consider and Report Upon Revision of the Rules of Warfare, Rules Concerning the Control of Radio in Time of War and Air Warfare, Feb. 19, 1923, arts. 2-4 [hereinafter Hague Radio Rules], *reprinted in THE LAW OF NAVAL WARFARE: A COLLECTION OF AGREEMENTS AND DOCUMENTS WITH COMMENTARIES*, *supra* note 121, at 367, 368, with Hague V, *supra* note 219, arts. 3, 8-9, 36 Stat. at 2323; Hague XIII, *supra* note 219, arts. 3, 5, 25, 36 Stat. at 2427; General Declaration, *supra* note 130, para. 3(c), at 605. See also 2 LEVIE, *supra* note 259, at 828-30; Philippe Eberlin, *Commentary*, in *THE LAW OF NAVAL WARFARE: A COLLECTION OF AGREEMENTS AND DOCUMENTS WITH COMMENTARIES*, *supra* note 121, at 371, 373, 375 (where Hague Radio Rules have the same meaning as ratified convention provisions, they should be considered part of current international law). Hague XIII, *supra* note 219, art. 9, 36 Stat. at 2428, requires impartial treatment of belligerents for admission to neutral ports, roadsteads or territorial waters. The Hague V, *supra* note 219, art. 9, 36 Stat. at 2323, impartiality rule deals only with restricting belligerents' use of wireless telegraphy.

284. 2 OPPENHEIM, *supra* note 112, § 356, at 748.

285. *Id.* at 749.

286. *Id.* at 750.

287. *Id.* See also 11 WHITEMAN, *supra* note 112, at 220.

288. Hague V, *supra* note 219, art. 19, 36 Stat. at 2326. Compare *id.*, with Convention with Respect to Laws and Customs of War on Land, July 29, 1899, Regulations, art. 54, 32 Stat. 1803, 1823. See also 2 LEVIE, *supra* note 259, at 832. Hague V, art. 19, is a special case of the right of angary or requisition by which belligerents may destroy or use neutral property on their territory, enemy

by a neutral consents to the stock's use for warlike purposes, however, the stock acquires enemy character and may be seized and appropriated as though it were enemy state property.²⁸⁹

Humanitarian law allows neutrals to authorize passage of wounded and sick from belligerent forces through their territory if vehicles transporting them carry no combat or war materials.²⁹⁰ If a neutral allows passage, the neutral is responsible for these persons' control and safety.²⁹¹ Escaped prisoners of war making their way to neutral territory may be repatriated home or left at liberty in the neutral state, but they may not take part in belligerent activities while there.²⁹²

2. Maritime Neutrality and Naval Warfare

The law of maritime neutrality is similar to that for land warfare in principle, but in some instances it reflects concepts from the LOS or different rules for the law of naval warfare. It is therefore necessary to examine certain LOS principles before analyzing principles of maritime neutrality law.

a. Law of the Sea Principles

Freedom of the seas, including overflight and navigation, is still the rule for high seas areas,²⁹³ subject to qualifications, such as coastal state contiguous zone, exclusive economic zone (EEZ),

territory or the high seas in case of military attack, subject to compensating owners. The right of angary does not derive from the law of neutrality; it is distinguished from belligerents' buying equipment or ships. In the latter case, both title and flag change to the belligerent upon purchase. *See generally* 6 HACKWORTH, *supra* note 235, § 609; 7 HACKWORTH, *supra* note 235, § 677; 3 HYDE, *supra* note 53, §§ 632-35; 2 OPPENHEIM, *supra* note 112, §§ 364-67; TUCKER, *supra* note 112, at 349 n.41; 10 WHITEMAN, *supra* note 112, § 21; 11 WHITEMAN, *supra* note 112, § 25; Hersch Lauterpacht, *Angary and Requisition of Neutral Property*, 27 BRIT. Y.B. INT'L L. 455 (1950).

289. 2 OPPENHEIM, *supra* note 112, § 355, at 747.

290. Hague V, *supra* note 219, art. 14, 36 Stat. at 2325.

291. *Id.*

292. Hague V, *supra* note 219, arts. 13-14, 36 Stat. at 2324-25; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3.1. These provisions did not apply to Belarus and Russian shipments of relief supplies through Hungary to the former Yugoslavia during the Kosovo bombing campaign. Hungary was a NATO member, and NATO conducted the bombing campaign. Therefore, Hungary was not a neutral in the conflict. *See supra* notes 3-11, 272 and accompanying text.

293. UNCLOS, *supra* note 44, art. 87(1), 1833 U.N.T.S. at 432-33; High Seas Convention, *supra* note 44, art. 2, 13 U.S.T. at 2314, 450 U.N.T.S. at 82-4. Although UNCLOS is in force for many countries, including U.S. allies, it is not in force for the United States. The United States has stated that the navigational provisions of UNCLOS reflect customary law, and many agree with this position. *See supra* note 44.

high seas fishing, and continental shelf interests.²⁹⁴ The territorial sea is subject to coastal state sovereignty,²⁹⁵ but this regime is subject to qualifications, including the right of innocent passage for all ships but not for aircraft.²⁹⁶

As with all treaties, the LOS conventions are subject to the U.N. Charter.²⁹⁷ Although the U.N. Charter Law of the Sea (UNCLOS) declares, in language similar to the Antarctic and other treaties, that the high seas shall be reserved for peaceful purposes,²⁹⁸ but that provision does not preclude military forces' use of the high seas. UNCLOS, Article 88 only forbids use for aggressive purposes in violation of U.N. Charter Article 2(4).²⁹⁹ UNCLOS only requires parties operating under the LOS to refrain from a threat or use of force in violation of the Charter.³⁰⁰ Article

294. See generally UNCLOS, *supra* note 44, arts. 33, 55-85, 116-20, 1833 U.N.T.S. at 409, 418-32, 441-42; Continental Shelf Convention, *supra* note 230; Fishery Convention, *supra* note 230, arts. 1-8, 13, 17 U.S.T. at 471, 473, 499, Territorial Sea Convention, *supra* note 230, art. 24, 15 U.S.T. at 1612, 516 U.N.T.S. at 220. See also *supra* note 230 and accompanying text.

295. UNCLOS, *supra* note 44, art. 2, 1833 U.N.T.S. at 400; Territorial Sea Convention, *supra* note 230, art. 2, 15 U.S.T. at 1608, 516 U.N.T.S. at 208.

296. UNCLOS, *supra* note 44, arts. 18-19, 1833 U.N.T.S. at 404; Territorial Sea Convention, *supra* note 230, art. 14, 15 U.S.T. at 1610, 516 U.N.T.S. at 214; Convention on International Civil Aviation, Dec. 7, 1944, arts. 1, 3, 61 Stat. 1180, 1181, 15 U.N.T.S. 295, 298 [hereinafter Chicago Convention]; NWP 1-14M ANNOTATED, *supra* note 37, para. 2.3.2.1, at 2-9; 1 O'CONNELL, *supra* note 44, at 118.

297. U.N. CHARTER art. 103. See also UNCLOS, *supra* note 44, art. 301, 1833 U.N.T.S. at 516; *supra* note 124 and accompanying text.

298. Compare UNCLOS, *supra* note 44, arts. 88, 301, 1833 U.N.T.S. at 433, 516, with Agreement Governing Activities of States on the Moon and Other Celestial Bodies, Dec. 18, 1979, art. 3(1), 1363 U.N.T.S. 3, 22-3 [hereinafter Moon Treaty] (providing that the Moon "shall be used by all . . . Parties exclusively for peaceful purposes"); Convention on the International Maritime Satellite Organization, Sept. 3, 1976, art. 3(3), 31 U.S.T. 1, 4, 1143 U.N.T.S. 105 [INMARSAT Organization shall act exclusively for peaceful purposes]; Convention on Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, May 18, 1977, art. 3(1), 31 U.S.T. at 333, 336, 1108 U.N.T.S. 151, 153 [hereinafter ENMOD] (Convention shall not hinder the use of environmental modification techniques for peaceful purposes); Treaty on Principles Governing Activities in Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, Jan. 27, 1967, art. 4, 18 U.S.T. at 2410, 2413-14, 610 U.N.T.S. 205, 208 [hereinafter Outer Space Treaty] (the Moon and other celestial bodies are to be used by treaty parties "exclusively for peaceful purposes"); Antarctic Treaty, Dec. 1, 1959, art. 1(1), 12 U.S.T. at 794, 795, 402 U.N.T.S. 71, 72 ("Antarctica shall be used for peaceful purposes only").

299. RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 521 & cmt. b; *Helsinki Principles* 3.1 & cmt., *supra* note 120, at 504.

300. UNCLOS, *supra* note 44, art. 301, 1833 U.N.T.S. at 516 (obviously referring to U.N. CHARTER art. 2(4)). See also NWP 1-14M ANNOTATED, *supra* note 37, para. 2.9.2 n.114 (noting some states' argument that UNCLOS, art. 88, excludes military activity and the U.S. view that Article 88 only excludes aggression); 3 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY, *supra* note 44, paras. 87.9(i), 88.1-88.7(d); RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 521 & cmt. b; Boczek, *supra* note 231, at 359; *Helsinki*

2(4) is, however, "subject to 'the inherent right of individual or collective self-defense.'"³⁰¹

The LOS conventions also declare that their terms are subject to "other rules of international law."³⁰² Most commentators say these "other rules" clauses refer to the LOAC.³⁰³ In addition, to the extent LOS treaties—particularly their provisions related to high seas navigation—have been incorporated into customary law,³⁰⁴ the "other rules" clauses apply as custom for states that are not convention parties.³⁰⁵

The LOS conventions also promote a due regard principle for shared ocean uses; one user must observe due regard for other users' rights, including the right to lay cables that might carry

Principles 1.2, *supra* note 120, at 499; Oxman, *supra* note 231, at 814; John E. Parkerson, Jr., *International Legal Implications of the Strategic Defense Initiative*, 116 *MILITARY L. REV.* 67, 79-85 (1987); Francis V. Russo, *Targeting Theory in the Law of Naval Warfare*, 30 *NAVAL L. REV.* 1, 8 (1992); Schmitt, *Bellum*, *supra* note 36, at 1087 (also noting differing views on UNCLOS, art. 88); *supra* note 116 and accompanying text. UNCLOS, art. 301, is consonant with U.N. Charter, art. 103, which declares that the Charter trumps all treaties. *See supra* note 124 and accompanying text.

301. RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 905 & cmt. g (quoting U.N. CHARTER art. 51). *See also* U.N. CHARTER art. 103; Nuclear Weapons, 1996 I.C.J. 226, 244 (July 8); *supra* notes 124, 168-74 and accompanying text. *Cf. Helsinki Principles* 1.2, *supra* note 120, at 499.

302. UNCLOS, *supra* note 44, pmb. (matters not regulated by Convention continue to be governed by rules, principles of general international law), arts. 2(3) (territorial sea), 19(1), 21(1), 31 (innocent passage) 34(2) (straits transit passage), 58(1), 58(3) (EEZs), 78(2) (continental shelf; coastal state cannot infringe or interfere with "navigation and other rights and freedoms of other States as provided for in this Convention"), 87(1) (high seas), 138 (Area), 303(4) (archaeological, historical objects found at sea; "other international agreements and rules of international law regarding the protection of objects of an archaeological and historical nature"), 1833 U.N.T.S. at 398, 400, 404-05, 409, 410, 419, 430, 432, 446, 517. *See also supra* note 230 and accompanying text.

303. *See supra* note 231 and accompanying text.

304. *See supra* notes 44, 237-38 and accompanying text.

305. Vienna Convention, *supra* note 44, pmb., art. 38, 1155 U.N.T.S. at 333, 341; RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 102(3) & cmt. f.; BROWNIE, *supra* note 44, at 5; 1 OPPENHEIM, *supra* note 44, §§ 10, at 28, 11, at 32-36. An example in an IW context is the UNCLOS, art. 109, 1833 U.N.T.S. at 438, requirement of cooperation to suppress unauthorized high seas broadcasting, reflecting an earlier European regional treaty. *See generally* COLOMBOS, *supra* note 44, §§ 156A-56B; NWP 1-14M ANNOTATED, *supra* note 37, para. 3.7; 2 O'CONNELL, *supra* note 44, at 814-19; OFFICE OF GENERAL COUNSEL, *supra* note 233, at 41; 3 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY, *supra* note 44, paras. 109.1-109.8(f), 110.1-110.11; Aldrich, *supra* note 1, at 254-55; Horace B. Robertson, Jr., *The Suppression of Pirate Broadcasting: A Test Case of the International System for Control of Activities Outside National Territory*, 45 *L. & CONTEMP. PROBS.* 71 (1982). While this obligation remains in effect among neutrals during war unless it is unenforceable because of, for example, impossibility or fundamental change of circumstances, *see supra* notes 222-23 and accompanying text, the other rules clauses would say that the Article 109 obligation is subject to the LOAC that might govern belligerent-neutral relations in some situations.

Internet messages.³⁰⁶ To the extent the treaty-based LOS on this point has been absorbed into customary law,³⁰⁷ the due regard principle binds nonparties to the conventions as a customary norm.³⁰⁸ Recent commentaries advocate a due regard standard for belligerents during war; for example, they must pay due regard to neutrals' high seas, continental shelf, and EEZ rights and duties, in addition to observation of other LOAC rules.³⁰⁹

Under the LOS, any country can use the high seas for conducting naval maneuvers, including dangerous activities, such as air operations and gunnery practice, as distinguished

306. Compare UNCLOS, *supra* note 44, arts. 87-88, 112-15, 1833 U.N.T.S. at 433, 440, with High Seas Convention, *supra* note 44, arts. 2, 26-29, 13 U.S.T. at 2314, 2319-20, 450 U.N.T.S. at 82, 96-98; Convention for Protection of Submarine Cables, Mar. 14, 1884, 24 Stat. 989; Declaration Respecting Interpretation of Articles II & IV, Dec. 1, 1886, 25 Stat. 1424. See also RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 521(3); COLOMBOS, *supra* note 44, §§ 399-400; MYRES S. MCDUGAL & WILLIAM T. BURKE, THE PUBLIC ORDER OF THE OCEANS 51-52 (1962); NWP 1-14M ANNOTATED, *supra* note 37, para. 2.4.3; 2 O'CONNELL, *supra* note 44, 796-99, 819-24; 1 OPPENHEIM, *supra* note 44, §§ 285, 310-11; 3 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY, *supra* note 44, para. 87.9(k); Oxman, *supra* note 231, at 837-88; Robertson, *supra* note 267, at 273-74, 286; Schindler, *supra* note 191, at 219-20. Due regard clauses apply to other sea areas. See, e.g., UNCLOS, *supra* note 44, arts. 27(4) (territorial sea), 39(3)(a) (straits transit passage), 56(2), 58(3), 60(3) (EEZ), 79(5) (cables, pipelines), 142(1), 148 (Area), 234 (ice-covered areas), 1833 U.N.T.S. at 407-08, 411-12, 418-20, 430, 448, 450, 493; Continental Shelf Convention, *supra* note 230, arts. 1, 3-5(1), 15 U.S.T. at 473, 499 U.N.T.S. at 312, 314 ("reasonable measures for the exploration . . . [and] exploitation" of continental shelf balanced against right to lay, maintain submarine cables, pipelines; continental shelf exploration, exploitation must not result in "unjustifiable interference with" navigation, high seas fishing, oceanographic research); Territorial Sea Convention, *supra* note 230, art. 19(4), 15 U.S.T. at 1611, 516 U.N.T.S. at 216-18 (due regard for navigation interests). See also RESTATEMENT (THIRD) OF FOREIGN RELATIONS §§ 511(b)-511(d), 514-15. UNCLOS, *supra* note 44, art. 311(1), 1833 U.N.T.S. at 519, declares it supersedes the Continental Shelf, High Seas and Territorial Sea Conventions among UNCLOS parties. Air law follows a similar principle. For example, when U.S. military aircraft do not follow ICAO flight procedures, they must navigate with "due regard" for civil aviation safety. NWP 1-14M ANNOTATED, *supra* note 37, para. 2.5.2.2. See also *infra* note 328 and accompanying text.

307. See *supra* notes 44, 237-38 and accompanying text.

308. Vienna Convention, *supra* note 44, pmbl., art. 38, 1155 U.N.T.S. at 333, 341; RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 102(3) & cmt. f; BROWNIE, *supra* note 44, at 5; 1 OPPENHEIM, *supra* note 44, §§ 10, at 28; 11, at 32-36.

309. INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 34-36; *Helsinki Principles* 3.1, 4 & cmts., *supra* note 120, at 503, 505; J. Ashley Roach, *The Law of Naval Warfare at the Turn of Two Centuries*, 94 AM. J. INT'L L. 64, 69 (2000) (due regard chosen instead of humanitarian law principle of "respect" for protected persons or objects); Robertson, *supra* note 267, at 303. *Helsinki Principles* 1.4 & cmt., *supra* note 120, at 500-01, recites a due regard standard in a context of requiring proportional attacks under the LOAC where neutral territory, waters or airspace might be involved.

from belligerent operations.³¹⁰ This is considered part of the freedoms of the seas. A military force user must give due notice of operations, however.³¹¹ Unlike the LOAC rule allowing a commander to exclude shipping from an immediate area of belligerent naval operations,³¹² the LOS allows ships flagged under other states to use this area; naval forces and other high seas users must have due regard for the other's freedom of the seas rights.³¹³ Neutrals and belligerents alike can use the high seas for this purpose during war. In this case the LOAC may impact through the LOS "other rules" principle.³¹⁴ If a state responds in self-defense, Charter primacy rules will come into play.³¹⁵

States also may declare moving high seas defense zones around naval or air forces, provided these zones are geographically and temporally limited to an extent necessary for defense.³¹⁶ There is no requirement for publishing these warnings, because naval and air units on the high seas have a right of individual and collective self-defense at all times if attacked or threatened with attack.³¹⁷ These zones, however, cannot be areas for free-fire attacks or reprisals involving use of

310. RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 521 & cmt. b; MCDUGAL & BURKE, *supra* note 306, 753-63; NWP 1-14M ANNOTATED, *supra* note 37, para. 2.4.3.1; U.S. DELEGATION PAPER, U.N. CONFERENCE ON THE LAW OF THE SEA, LEGALITY OF USING THE HIGH SEAS IN CONNECTION WITH NUCLEAR WEAPONS TESTS IN THE PACIFIC OCEAN, Doc. No. US/CLS/Pos/48 (2)-(3), Annex II (Feb. 20, 1958), *reprinted* in 4 WHITEMAN, *supra* note 112, § 2, at 546, 549; John H. Pender, *Jurisdictional Approaches to Maritime Environments: A Space Age Perspective*, 15 J.A.G. J. 155-58 (1960).

311. *See supra* note 310 and accompanying text.

312. *See infra* notes 369, 409 and accompanying text.

313. *See supra* notes 306-09 and accompanying text.

314. *See supra* notes 230-31, 302-05 and accompanying text.

315. *Cf.* U.N. CHARTER arts. 51, 103. *See also supra* notes 124, 170-76, 297-301 and accompanying text.

316. The Nyon Arrangement appears to be the first announced high seas defense zone. Nyon Arrangement, Sept. 14, 1937, §§ 1-4, 181 L.N.T.S. 135, 137-38, *amended by* Agreement Supplementary to Nyon Arrangement, Sept. 17, 1937, paras. 1-3, 181 L.N.T.S. 149, 151. The belligerents declared them in the 1982 Falklands-Malvinas War; the United States announced them in the 1980-88 Tanker War. *See* O'CONNELL, *supra* note 168, at 80, 168, 172; WALKER, THE TANKER WAR, *supra* note 108, Part V.F.1.b; L.F.E. Goldie, *Commentary*, in THE LAW OF NAVAL WARFARE: A COLLECTION OF AGREEMENTS AND DOCUMENTS, *supra* note 121, at 489, 493-95; L.F.E. Goldie, *Maritime War Zones and Exclusion Zones*, in THE LAW OF NAVAL OPERATIONS, *supra* note 44, at 156, 192; D.P. O'Connell, *International Law and Contemporary Naval Operations*, 44 BRIT. Y.B. INT'L L. 54-56 (1970).

317. U.N. CHARTER arts. 51, 103. *See also supra* notes 124, 168-74, 297-301 and accompanying text. The wisdom of publishing these zones from a naval operations perspective has been questioned. *See generally* Stanley F. Gilchrist, *The Cordon Sanitaire—Is It Useful? Is It Practical?*, NAVAL WAR C. REV., May-June 1982, at 60.

force.³¹⁸ Declaring states must observe certain principles, such as necessity and proportionality, in self-defense situations, other principles in other circumstances like retorsions, and LOAC principles when that law applies.³¹⁹ States may not declare, however, high seas areas permanently barred to high seas navigation or their territorial seas permanently barred to innocent passage through security zone proclamations similar to the one issued by North Korea.³²⁰ High seas defense zones are different in principle and function from declared areas of naval and air operations,³²¹ wartime warnings for belligerents' immediate area of naval operations,³²² blockade areas,³²³ or war zones.³²⁴

Belligerents and neutrals have a customary right to establish air defense identification zones (ADIZs) in international airspace over the high seas, anchored to their territorial sea airspace, to establish reasonable rules of entry into national airspace. The ADIZ legal basis is a nation's right to establish reasonable conditions for entry into its territory.³²⁵ An ADIZ cannot be a

318. Ronzitti, *supra* note 121, at 39.

319. See *supra* notes 124, 168-74, 230-31, 297-305 and accompanying text.

320. RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 511 & cmt. k; INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 19, 26, 29, 31, 33; NWP 1-14M ANNOTATED, *supra* note 37, para. 1.5.4; ROACH & SMITH, *supra* note 238, para. 6.2; James R. Boma, *Troubled Waters Off the Land of the Morning Calm: A Job for the Fleet*, NAVAL WAR C. REV., Spring 1989, at 33, 39-40, 42-43; *Helsinki Principles* 2.3, *supra* note 120, at 503; Choon-Ho Park, Comment, *The 50-Mile Military Boundary Zone of North Korea*, 72 AM. J. INT'L L. 866, 873-75 (1978); Schindler, *supra* note 191, at 220. About twenty states have declared security zones. Astley & Schmitt, *supra* note 121, at 137. If the Nordic Neutrality Rules are construed to permanently bar warships from high seas passage, or to permanently bar innocent passage under LOS principles, they should be deemed to have been superseded by LOS principles. Compare Nordic Neutrality Rules, *supra* note 130, art. 2, 188 L.N.T.S. at 297, 304, 311, 317, 325, with, e.g., UNCLOS, *supra* note 44, arts. 18-20, 1833 U.N.T.S. at 404-05; Territorial Sea Convention, *supra* note 230, arts. 14-16, 15 U.S.T. at 1610-11, 516 U.N.T.S. at 214-16. The same might be said for the General Declaration, *supra* note 130, para. 3(k), at 606 (exclusion of submarines from "waters adjacent to [signatories] territories") and for the actions of World War I neutrals in excluding belligerent warships from their territorial waters except in distress cases. See, e.g., 7 HACKWORTH, § 668, at 437-39. See also General Declaration, *supra* note 130, para. 3(d), at 605; *Harvard Draft Neutrality Convention*, *supra* note 281, art. 26, at 525. By contrast to the General Declaration the companion Declaration of Panama, *supra* note 130, paras. 1, 3-4, 3 Bevens 609-10, only undertook to endeavor to get World War II belligerents to comply with a 200-mile zone established off the Americas, except off waters of colonies or possessions of European states, and to patrol the area. The Declaration thus did not go as far as the Nyon Arrangement and Agreement Supplementary to the Nyon Arrangement. See *supra* note 316 and accompanying text.

321. See *supra* notes 311-15 and accompanying text.

322. See *infra* note 369 and accompanying text.

323. See *infra* notes 366-68 and accompanying text.

324. See *infra* note 372 and accompanying text.

325. RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 521 & n.2; MYRES S. MCDUGAL ET AL., LAW AND PUBLIC ORDER IN SPACE 307-09 (1963); NWP 1-14M

sovereignty claim over high seas airspace, since navigation and overflight are among high seas freedoms.³²⁶ An ADIZ cannot stand in the way of these high seas freedoms.³²⁷ ADIZs are different from flight information regions or aircraft warning zones which are legitimate; which may be declared incident to military exercises on, under, and over the high seas; and which purport to warn but not to exclude.³²⁸ ADIZs also differ from high seas defense zones,³²⁹ wartime warnings concerning belligerents' immediate area of naval operations,³³⁰ blockade areas,³³¹ and war zones.³³²

b. Neutrality Law in the Maritime Warfare Context

The traditional law of maritime neutrality offers principles relevant to IW issues; these principles are different in some respects from land warfare rules.³³³

Belligerents may not use neutral ports and waters as a base of naval operations against adversaries, "in particular to erect wireless telegraphy stations or any apparatus for . . . communicating with the belligerent forces on land or sea."³³⁴ Although custom and

ANNOTATED, *supra* note 37, para. 2.5.2.3; U.S. DEPT OF THE AIR FORCE, *supra* note 222, para. 2-1g; U.S. DEPT OF THE NAVY, LAW OF NAVAL WARFARE, NWIP 10-2 (BASIC THROUGH CHANGE 6) para. 422b (1974); Note, *Air Defense Identification Zones: Creeping Jurisdiction in the Airspace*, 18 VA. J. INT'L L. 485 (1978). U.S. ADIZs are published in 14 C.F.R. pt. 99 (1999). *Cf.* Chicago Convention, *supra* note 296, arts. 3, 8, 11 (nonmilitary aircraft required to submit to rules for entering another state's territory unless there has been a prior agreement).

326. UNCLOS, *supra* note 44, art. 87(1); High Seas Convention, *supra* note 44, art. 2; U.S. DEPT OF THE AIR FORCE, *supra* note 222, para. 2-1g.

327. 2 O'CONNELL, *supra* note 44, at 797.

328. U.S. DEPT OF THE AIR FORCE, *supra* note 222, para. 2-1g & n.13. *See also supra* notes 311-15 and accompanying text. They also differ from Flight Information Regions (FIRs) for control of civil aircraft. State aircraft need not comply with these but often do so for safety reasons or as a matter of policy. When U.S. military aircraft do not follow ICAO flight procedures, they must navigate with "due regard" for civil aviation safety. In a handful of cases, the United States has protested a foreign state's requirement for U.S. military aircraft to comply with their FIR rules. NWP 1-14M ANNOTATED, *supra* note 37, para. 2.5.2.2; ROACH & SMITH, *supra* note 238, at 369-75; *supra* note 309 and accompanying text.

329. *See* NWP 1-14M ANNOTATED, *supra* note 37, para. 2.5.2.3 (referring to NWP 1-14M ANNOTATED para. 2.4.4 n.68); *supra* notes 316-24 and accompanying text.

330. *See infra* note 369 and accompanying text.

331. *See infra* note 366-68 and accompanying text.

332. *See infra* note 372 and accompanying text.

333. *Cf.* 2 OPPENHEIM, *supra* note 112, § 342 (discussing the effect of entering neutral waters in varying circumstances). For a general analysis of maritime neutrality issues, see generally Astley & Schmitt, *supra* note 121, at 138-47.

334. Hague XIII, *supra* note 219, art. 5; Hague V, *supra* note 219, art. 3. *See also* Maritime Neutrality Convention, *supra* note 128, arts. 4(b), 26; Nordic

Hague XIII allow neutrals to permit belligerent warship passage through their territorial seas, this is subject to an overriding principle that a neutral's territorial sea cannot be used as a base of operations.³³⁵ Both conventions require impartiality for other matters,³³⁶ but no requirement attaches to this rule in either treaty. Neutrals must, however, "exercise such surveillance as the means at its disposal allow to prevent any violation" of this rule and a rule that belligerent naval forces may not use neutral ports or waters as a base of operations against adversaries; this is a less stringent requirement than land warfare requirements.³³⁷ Similarly, Hague XIII says a neutral is "entitled," not required, to take measures it considers necessary to render a warship incapable of leaving port when that warship should have departed the port because it is not entitled to remain there.³³⁸ A probable reason for this less onerous

Neutrality Rules, *supra* note 130, art. 12(1), 301, 309, 315, 323, 329; INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para 16(b); 2 O'CONNELL, *supra* note 44, 1126; 2 OPPENHEIM, *supra* note 112, §§ 325-25a, 333; *Helsinki Principles* 1.4, *supra* note 120, at 500; *supra* notes 280-87 and accompanying text.

335. 2 OPPENHEIM, *supra* note 112, §§ 325-25a (referring *inter alia* to Hague XIII, *supra* note 219, art. 10, 36 Stat. at 2324). See also Maritime Neutrality Convention, *supra* note 128, art. 4(a); UNCLOS, *supra* note 44, arts. 18-19 (right of innocent passage, subject to other rules of international law, *i.e.*, the LOAC); Territorial Sea Convention, *supra* note 230, arts. 1(2), 14; INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119; Robertson, *supra* note 267, at 303.

336. Hague V, *supra* note 219, art. 9, 36 Stat. 2323 (impartial treatment for restrictions on exporting goods to belligerents, belligerent wireless telegraphy use); Hague XIII, *supra* note 219, art. 9, 36 Stat. at 2428 (impartial treatment for admitting belligerent warships, naval auxiliaries to ports, roadsteads, and territorial waters). The rule does not apply to belligerent-flag merchantmen not otherwise assimilated to a belligerent's service, *i.e.*, in ordinary trade. 2 OPPENHEIM, *supra* note 112, § 333a. See also *Helsinki Principles* 2.2, *supra* note 120, at 502 (impartiality in imposing other than the 24-hour rule on belligerent warship passage and sojourn).

337. Compare Hague XIII, *supra* note 219, art. 25 (neutral power must use "such surveillance as the at its disposal allows."), with Hague V, *supra* note 219, art. 5 (neutral "must not" allow such acts "to occur on its territory"). See also Maritime Neutrality Convention, *supra* note 128, art. 26; INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 16(b); 2 OPPENHEIM, *supra* note 112, § 333; *Harvard Draft Neutrality Convention*, *supra* note 281, art. 6. This is a less stringent standard than Treaty of Washington, *supra* note 276, art. 6, would impose. See 3 HYDE, *supra* note 53, §§ 853-54; 2 LEVIE, *supra* note 259, at 817; SCOTT, *supra* note 269, at 866. When the Treaty was negotiated, there was debate over the standard that a state should observe for vessels being built on its territory; the United States advocated a due diligence principle. See generally 7 JOHN BASSETT MOORE, A DIGEST OF INTERNATIONAL LAW § 1330, at 1065-68 (1906). Hague XIII, *supra* note 219, adopted a different standard.

338. This includes internment crew. If an enemy prize is brought to a neutral port under distress or similar conditions and does not leave when directed, its crew must be interned. Hague XIII, *supra* note 219, arts. 21, 22, 24. See also Maritime Neutrality Convention, *supra* note 128, art. 17; Nordic Neutrality Rules, *supra* note 130, art. 4(1). Hague XIII, art. 23, gives an exception to this rule—

standard for neutrals facing naval incursions or compelling a warship in a neutral port to leave is that some countries did not have a navy or other forces sufficient to drive out intruding belligerent naval forces. Furthermore, these countries may not possess the means to detect intruders.³³⁹ On the other hand, if belligerent war material, as distinguished from belligerent warships, comes into neutral territory—for example, aboard neutral merchantmen, it must be sequestered until the war's end.³⁴⁰

The Radio Rules opt for the more stringent standard for transmissions concerning military forces or operations destined for a belligerent.³⁴¹ If a neutral cannot or will not enforce its duty to clear its waters of belligerent forces, however, an aggrieved belligerent may act against those belligerent forces present in neutral waters.³⁴²

The Radio Rules, interpreting the unratified Declaration of London (1909), also say that neutral vessels or aircraft transmitting messages on the high seas for a belligerent's immediate use are deemed to have committed a "hostile act," rendering the vessel liable to be fired on or captured.³⁴³ The

entry of prizes under other than distress conditions—but several nations, including the United States ratified but reserved with respect to Article 23. See Hague XIII, *supra* note 219. Hague XIII, arts. 21-22 are customary law; art. 23 is not because of U.S. and U.K. reservations now applying to more states through treaty succession principles. The *S.S. Appam*, 243 U.S. 124, 150-51 (1917); 3 HYDE, *supra* note 53, §§ 862, 864; 2 OPPENHEIM, *supra* note 112, §§ 328a, 333, 345. See also Symposium, *supra* note 216, at 253; Walker, *supra* note 216, at 1. Neutrals must allow belligerent warships entry for asylum, distress, or other purposes if they comply with innocent passage rules. UNCLOS, *supra* note 44, arts. 18-19 (innocent passage in distress, but subject to other rules of international law, *i.e.*, LOAC); Territorial Sea Convention, *supra* note 230, arts. 1(2), 14; INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 21; NWP 1-14M ANNOTATED, *supra* note 37, para. 3.2.2.1; 2 OPPENHEIM, *supra* note 112, §§ 343-46; *Helsinki Principles* 2.2, *supra* note 120, at 502.

339. See *supra* note 281 and accompanying text. *Helsinki Principles* would require a neutral to "take measures to terminate [a] . . . violation" of rules for passage and sojourn of warships in neutral territorial waters. *Helsinki Principles* 2.2, *supra* note 120, at 502. This seems to be beyond the Hague law requirements.

340. 2 OPPENHEIM, *supra* note 112, § 348b.

341. Hague Radio Rules, *supra* note 283, art. 5, at 368.

342. *Helsinki Principles* 2.1, *supra* note 120, at 501; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3; 2 O'CONNELL, *supra* note 44, at 1118-19 (discussing the *Dresden* and *Altmark* incidents); 2 OPPENHEIM, *supra* note 112, § 325-25a (discussing the *Altmark* incident). See also *supra* notes 177-81 and accompanying text (necessity principle as part of the law of self-defense). What is permitted as lawful intervention into neutral territory pursuant to the LOAC under a state of necessity theory and what the law of self-defense would allow as legitimate application of state of necessity are subject to different criteria, even as self-defense and LOAC proportionality principles may be different in different situations. See *supra* notes 175-81 and accompanying text.

343. Compare Hague Radio Rules, *supra* note 283, arts. 6(1)-6(2), at 368-69 (transmission of military intelligence for use by a belligerent is deemed a hostile

Declaration says that neutral vessels receive the same treatment as if carrying contraband if they are on a voyage for transmitting intelligence to the enemy, take direct part in hostilities, are under orders or control of an agent of the enemy government, are in the enemy government's exclusive employ, or are exclusively engaged in transmitting intelligence in the interest of the enemy.³⁴⁴ Nothing in the Radio Rules relieves a belligerent from its obligation to transmit or prohibit distress signals, messages, or messages indispensable for navigational safety.³⁴⁵ During the world wars, neutrals prevented belligerent-flag merchantmen and warships from transmitting by radio while in their neutral waters.³⁴⁶

Hague IV declares that submarine cables, which might carry Internet messages as well as telephone or telegraph communications, connecting occupied territory with neutral territory may not be seized or destroyed except in case of absolute necessity.³⁴⁷ This is limited to land warfare when a belligerent occupies enemy territory and seizes or destroys landing ends of cables connecting that territory with a neutral state.³⁴⁸ The 1884 cable convention and later LOS provisions on cables do not apply during war.³⁴⁹ Although analogies to bridges or mail ships have been rejected,³⁵⁰ and undersea cables are no longer a primary means of international communications, rules for them may bear on IW issues:

act), with Final Protocol of Naval Conference, Feb. 26, 1909, arts. 45-46, 208 Consol. T.S. 338, 348, translated and reprinted in SCHINDLER & TOMAN, *supra* note 221, at 843, 851-52 [hereinafter Declaration of London]. See also 2 LEVIE, *supra* note 259, at 821-23, 831-32; Eberlin, *supra* note 283, at 374. Although reprinted in the *Consolidated Treaty Series*, the U.K. House of Lords rejected the Declaration and its signatories never ratified it. SCHINDLER & TOMAN, *supra* note 221, at 843.

344. Declaration of London, *supra* note 343, arts. 45(1), 46, at 851-52. See also INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 67-69; 2 LEVIE, *supra* note 259, at 823-24; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.10; 2 O'CONNELL, *supra* note 44, at 1148-49; TUCKER, *supra* note 112, at 295, 325-40, 345.

345. Hague Radio Rules, *supra* note 283, art. 9. See also Convention for the Unification of Certain Rules of Law with Respect to Assistance and Salvage at Sea, Sept. 23, 1910, 37 Stat. 1658 (Article 14 declares that it does not apply to warships); Nordic Neutrality Rules, *supra* note 130, art. 12(2); Eberlin, *supra* note 283, at 324.

346. 2 OPPENHEIM, *supra* note 112, § 356.

347. Convention Respecting the Laws and Customs of War on Land, Oct. 18, 1907, art. 54, 36 Stat. 2277, 2308, 205 Consol. T.S. 277.

348. COLOMBOS, *supra* note 44, § 569.

349. UNCLOS, *supra* note 44, arts. 2(3), 87(1); High Seas Convention, *supra* note 44, art. 2; Convention for Protection of Submarine Cables, *supra* note 306, art. 15; COLOMBOS, *supra* note 44, §§ 400, 569; 1 OPPENHEIM, *supra* note 44, § 311; 2 OPPENHEIM, *supra* note 112, § 214. See also *supra* note 306 and accompanying text.

350. COLOMBOS, *supra* note 44, § 575.

Submarine . . . cables between points in an enemy's territory, between points in the territories of enemies, between points in the territory of an enemy and neutral territory or between points in occupied territory and neutral territory are subject to such treatment as the necessities of war may require. Submarine . . . cables between two neutral territories should be held inviolable and free from interference.³⁵¹

Attacks are subject to the principles of the military objective, necessity, proportionality, due regard for other ocean users, and due regard for the environment.³⁵²

If a neutral lays mines off its coasts for self-defense purposes, it must observe the same rules and precautions as belligerents.³⁵³ Neutrals must notify mariners where mines have been laid.³⁵⁴ Mines cannot be laid with the sole object of intercepting commercial shipping.³⁵⁵ Neutrals may remove mines

351. *Id.* § 576. See also INST. OF INT'L LAW, THE LAWS OF NAVAL WAR GOVERNING THE RELATIONS BETWEEN BELLIGERENTS art. 54 (1913), reprinted in SCHINDLER & TOMAN, *supra* note 221, at 857, 867 [hereinafter INST. OF INT'L LAW, OXFORD NAVAL MANUAL]; U.S. DEPT OF THE NAVY, *supra* note 325, para. 520b. Modern manuals do not analyze the issue thoroughly, probably because of disuse of cables. INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para 37; NWP 1-14M ANNOTATED, *supra* note 37, para. 1.6, at 24 (discussing cables in an LOS context). See also *supra* notes 306, 348-49 and accompanying text.

352. Protocol I, *supra* note 41, arts. 35, 48, 51(1)-51(2), 51(5), 52(2), 57(1)-57(4); BOTHE ET AL., *supra* note 213, at 194, 299, 309-11, 350-57, 359-67; INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 34-42, 44, 46; NWP 1-14M ANNOTATED, *supra* note 37, paras. 8.1-8.1.3; *Helsinki Principles* 1.4, 3.1, 4, *supra* note 120, at 500, 503, 505; *supra* notes 306-09 and accompanying text. LOAC proportionality standards are not necessarily the standards under the law of self-defense. For example, what is a proportional response in an anticipatory self-defense situation might not be the same as proportionality in an attack on the same object during armed conflict.

353. Cf. U.N. CHARTER art. 51. See also COLOMBOS, *supra* note 44, § 568; Thorpe, *supra* note 231, at 267; *supra* notes 124, 168-74, 297-301 and accompanying text.

354. See *supra* notes 124, 168-74, 297-301 and accompanying text.

355. Convention Relative to the Laying of Automatic Submarine Contact Mines, Oct. 18, 1907, arts. 2, 4, 36 Stat. 2332, 2343 [hereinafter Hague VIII]; UNCLOS, *supra* note 44, art. 25(3) (LOS forbids more than temporary suspension of innocent passage and also requires notice); 2 OPPENHEIM, *supra* note 112, §§ 182a, 363a. See also Territorial Sea Convention, *supra* note 230, art. 16(3) (temporary suspension of innocent passage must be published); Corfu Channel (U.K. v. Alb.), 1947 I.C.J. 7, 22 (Dec. 10); INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 86 & cmt. 86.2; NWP 1-14M ANNOTATED, *supra* note 37, paras. 2.3.2.3, 9.2.2. The LOS suspension cannot be permanent. MCDUGAL & BURKE, *supra* note 306, at 593. Hague VIII, *supra*, generally remains valid as a restatement of custom applied to all kinds of sea mines. Some states might dispute applying it to more than automatic contact mines. 2 O'CONNELL, *supra* note 44, at 1138; O'CONNELL, *supra* note 168, at 93 (U.K. admiralty questioned in 1939 whether Hague Convention VIII of 1907 applied to magnetic mines); STONE, *supra* note 112, at 584 (acoustic, magnetic mines literally not within 1907 Hague Convention's coverage); H.S. Levie, *Commentary, in THE LAW OF NAVAL WARFARE: A COLLECTION OF AGREEMENTS AND DOCUMENTS WITH*

laid in violation of international law on the high seas—especially if they hamper shipping, in an EEZ, above the continental shelf, in areas subject to transit, or in an archipelagic sea lanes passage.³⁵⁶ They may not remove them from a belligerent's territorial waters except to secure free straits transit or archipelagic sea lanes passage.³⁵⁷

The Declaration of London tried to define absolute and conditional contraband, “free goods”—“material not susceptible of use in war,” and items used exclusively for aiding the sick and wounded.³⁵⁸ Commentators and military manuals since then have tried to carry these principles forward, noting that practice in the twentieth century led to longer and longer lists of absolute contraband and recognizing that it has been almost impossible to make absolute categorizations.³⁵⁹ The trend has been toward publishing a list of exempt goods.³⁶⁰ The treaty law of permissible weapons has followed a similar pattern; for example, with certain exceptions,³⁶¹ trends are toward statements of general principles because treaties prohibiting certain weapons or methods of warfare have become obsolete before the ink is dry on the treaty.³⁶² Nevertheless, some states have declared

COMMENTARIES, *supra* note 121, at 140-46 (discussing the “basic defects” of Hague VIII). U.S. DEP'T OF THE NAVY, *supra* note 325, para. 611 n.3, however, states that Hague VIII must be extrapolated to include acoustic, magnetic and other new devices to achieve the goal of protecting peaceful shipping. Levie reports that no World War I or II belligerent raised the point. H.S. Levie, *Mine Warfare and International Law*, NAVAL WAR C. REV., Apr. 1972, at 27, 29. Whether Hague VIII applies as treaty law to other mines, its terms can be used as a general principle with other LOAC general principles like proportionality and necessity to achieve the same result. I.C.J. STATUTE art. 38(1); RESTATEMENT (THIRD) OF FOREIGN RELATIONS §§ 102-03. Cf. U.S. DEP'T OF THE NAVY, *supra* note 325, para. 611 n.3. An implication from Hague VIII, art. 4, is that the lawful laying of mines by neutrals cannot be deemed a hostile act. 2 LEVIE, *supra* note 259, at 794.

356. See *supra* notes 293-96 and accompanying text.

357. U.N. CHARTER art. 51; INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 92; NWP 1-14M ANNOTATED, *supra* note 37, para. 9.2.3, at 446; *Helsinki Principles* 6.2, *supra* note 120, at 515. See also *supra* notes 124, 168-74, 297-301 and accompanying text.

358. Declaration of London, *supra* note 343, arts. 22-29, at 847-49. See also NWP 1-14M ANNOTATED, *supra* note 37, para. 7.4.1.2 (contraband exemptions list).

359. E.g., INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 147-50; NWP 1-14M ANNOTATED, *supra* note 37, paras. 7.4.1, 7.4.1.2; *Helsinki Principles* 5.2.3-5.2.5, 5.3, *supra* note 120, at 510-12.

360. See *supra* note 359 and accompanying text.

361. E.g., Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, June 17, 1925, 26 U.S.T. 571, 94 L.N.T.S. 65 (exceptions include gas and bacteriological warfare).

362. Horace B. Robertson, Jr., *Modern Technology and the Law of Armed Conflict at Sea*, in THE LAW OF NAVAL OPERATIONS, *supra* note 44, at 362, 370 [hereinafter Robertson, *Modern Technology*]. Cf. Horace B. Robertson, *New Technologies and Armed Conflicts at Sea*, 14 SYRACUSE J. INT'L L. & COM. 699, 704

contraband lists based on the Declaration.³⁶³ Another trend has been declaring all imports directly or indirectly sustaining a war effort as contraband without distinguishing between absolute and conditional contraband.³⁶⁴ This trend follows the Declaration's Article 46, which says vessels taking a direct part in hostilities are liable to treatment as carrying contraband.³⁶⁵

Besides being subject to high seas visit and search or diversion,³⁶⁶ neutral merchantmen must observe duly established blockades that are notified and are effective and impartial.³⁶⁷ The blockade option illustrates a possible operation of overriding U.N. Charter norms; the Charter provides for an option of "complete or partial interruption of . . . sea, . . . telegraphic, radio, and other means of communication" among its Article 41 sanctions.³⁶⁸

(1988) [hereinafter Robertson, *New Technologies*]. This may mean that trying to define IW methods or means that are *per se* unlawful will fail, particularly when technology is developing exponentially.

363. See, e.g., Walker, *supra* note 198, at 143-44 & n.216 (discussing Pakistan in 1965).

364. Declaration of London, *supra* note 343, at 852.

365. Compare NWP 1-14M ANNOTATED, *supra* note 37, para. 7.4.1, at 382, and INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 148, at 215-16, with Declaration of London, *supra* note 343, art. 46, at 852. See also *Helsinki Principles* 5.2.5, *supra* note 120, at 511 (noting that goods for a neutral destination coming from a belligerent port are not contraband).

366. See generally INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 116, 118-24, at 192-93; NWP 1-14M ANNOTATED, *supra* note 37, paras. 7.6-7.6.2; *Helsinki Principles* 5.2.1, 5.2.7, *supra* note 120, at 509, 511.

367. INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 93-104, at 177-81; NWP 1-14M ANNOTATED, *supra* note 37, paras. 7.7.1-7.7.5; *Helsinki Principles* 5.2.10, 5.3, *supra* note 120, at 513.

368. U.N. CHARTER art. 41. Article 41 has never been invoked for a blockade. See U.N. CHARTER arts. 25, 41, 48, 103; THE CHARTER OF THE UNITED NATIONS: A COMMENTARY, *supra* note 83, at 628-36 (using Article 41 proposed only once); GOODRICH ET AL., *supra* note 83, at 314-17; GREENBERG ET AL., *supra* note 1, at 21 (suggesting Article 41's use for cyber blockade); INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 7-9, at 79-80; *Helsinki Principles* 1.2, *supra* note 120, at 499; Scott, *supra* note 41, at 61. See also NWP 1-14M ANNOTATED, *supra* note 37, para. 7.7.2 & n.131; *supra* notes 125, 159-64, 190, 194 and accompanying text.

Pacific blockades declared by a state are not lawful in the Charter era as a threat against the target state. U.N. CHARTER art. 2(4); 2 O'CONNELL, *supra* note 44, at 1157-58 (referring to UN Charter, art. 2(4), and noting that even under traditional law, a pacific blockade, *i.e.*, a blockade during time of peace, may not have enough practice to be customary law). See also COLOMBOS, *supra* note 44, §§ 484-88B, at 464-70 (hinting at the legality of a pacific blockade); 2 OPPENHEIM, *supra* note 112, §§ 44-49, 52b-52e, 52l, at 144-50, 159-63, 196-201 (hinting at the legality of a pacific blockade); U.S. DEPT OF THE NAVY, *supra* note 325, para. 632a & n.26. A related method, naval demonstration, *i.e.*, sending warships into neutral coastal waters to threaten that state, violates Article 2(4) of the U.N. Charter, LOS principles governing innocent passage in the territorial sea, and the LOAC regarding belligerent conduct toward neutrals. UNCLOS, *supra* note 44, art. 19, at 404; Territorial Sea Convention, *supra* note 230, art. 14(4), 15 U.S.T. at 1610, 516 U.N.T.S. at 214; Hague XIII, *supra* note 219, arts. 1, 5, at 2427; COLOMBOS, *supra* note 44, § 489, at 471-72. The Security Council, however, could

Merchantmen on the high seas also must obey belligerents' orders to leave an immediate area of naval operations and may prohibit neutral ships and aircraft from the area of actual operations.³⁶⁹ War zones may be declared on the high seas for neutral ships, provided that they are limited in duration and are proportional in area to their purpose and that belligerents observe due regard for neutrals' use of the seas.³⁷⁰ Notice of zones must be given.³⁷¹ A belligerent's establishment of a zone does not relieve it of other LOAC obligations, such as the prohibition on a declarant converting a war zone into a free-fire area.³⁷²

order a communications interruption, pacific blockade, or naval demonstration as part of its Articles 25 and 48 decision authority. 2 OPPENHEIM, *supra* note 112, § 44-49, 52b-52e, 52l, at 144-59, 159-63, 196-201. Reprisals involving use of force, for example firing on a neutral coast or other territory to signal a belligerent's displeasure with a neutral's conduct, is equally invalid under Article 2(4). See also COLOMBOS, *supra* note 44, § 491, at 473; *supra* note 116 and accompanying text. Displeased belligerents may undertake nonforce reprisals or retorsions to influence neutral behavior, for example embargo in violation of a trade treaty or withdrawing diplomatic relations, an unfriendly but lawful act. See COLOMBOS, *supra* note 44, §§ 481-83, at 464-65; *supra* notes 175-76 and accompanying text. Belligerents may also exclude merchantmen and civil aircraft from the immediate area of naval operations and may declare war zones in high seas areas off any nation's coast. See *infra* notes 369-72 and accompanying text. There is also nothing wrong with a state's using high seas off a country's coasts for freedom of navigation and overflight or using high seas areas for naval exercises, provided due regard is given for other high seas users' rights. See *supra* notes 293-96, 306-15, 328 and accompanying text.

369. INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 108 & cmt. 108.1, at 183; NWP 1-14M ANNOTATED, *supra* note 37, paras. 7.8-7.8.1; Astley & Schmitt, *supra* note 121, at 154; *Helsinki Principles* 3.3 & cmt., *supra* note 120, at 505. The *Helsinki Principles* declare: "Neutral ships should be aware of the risk and peril of operating in areas where active naval hostilities take place. Belligerents engaged in naval hostilities must, however, take reasonable precautions including appropriate warnings, if circumstances permit, to avoid damage to neutral ships." *Helsinki Principles* 3.2, *supra* note 120, at 504. This does not authorize converting a naval operations area into a free-fire zone and does not change the customary rule that belligerents must warn away neutral shipping from operational areas. The *Helsinki* rule might come into play if there is a chance encounter of belligerent forces.

370. See *supra* notes 306-15 and accompanying text.

371. See *supra* note 311 and accompanying text.

372. INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 105-08, at 181-84; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.9; WALKER, THE TANKER WAR, *supra* note 108, Part V.F.2; Astley & Schmitt, *supra* note 121, at 154; W.J. Fenrick, *The Exclusion Zone Device in the Law of Naval Warfare*, 1986 CAN. Y.B. INT'L L. 91, 124-25 (1986); *Helsinki Principles* 3.3 & cmt., *supra* note 120, at 504; Ross Leckow, *The Iran-Iraq Conflict in the Gulf: The Law of War Zones*, 37 INT'L & COMP. L.Q. 629 (1988); Vaughan Lowe, *The Impact of the Law of the Sea on Naval Warfare*, 14 SYRACUSE J. INT'L L. & COM. 657, 673 (1988); Roach, *supra* note 309, at 72. The *Helsinki Principles* declare: "Neutral ships should be aware of the risk and peril of operating in areas where active naval hostilities take place. Belligerents engaged in naval hostilities must, however, take reasonable precautions including appropriate warnings, if circumstances permit, to avoid damage to neutral ships." *Helsinki Principles* 3.2, *supra* note 120,

Neutral ships acquire enemy character and may be treated as enemy merchant vessels if they operate directly under enemy control, orders, charter, employment, or direction.³⁷³ Enemy merchant ships incorporated into or assisting the enemy's intelligence system in any way, acting as a military or naval auxiliary, or integrated into the enemy war-fighting or war-sustaining effort, are liable to attack and destruction³⁷⁴—subject to principles of necessity and proportionality³⁷⁵ and subject to special rules in certain cases.³⁷⁶ If a neutral merchant ship has acquired enemy character, it is subject to these principles, including capture and perhaps destruction, instead of visit and search or diversion, a method of determining whether a merchantman has enemy character.³⁷⁷ While contraband deals only with imports for a belligerent,³⁷⁸ these rules apply to imports and exports alike.

Certain enemy—and therefore neutral—vessels are immune from capture or possible destruction if they do not lose exempt status by aiding an enemy. In some instances—for example, passenger liners, the prohibition may be absolute unless they lose protected status by acting in a proscribed manner, such as aiding the enemy.³⁷⁹ Mail ships may be among these vessels. Hague XI provides:

at 504. This does not authorize converting these zones into free-fire areas and does not change the customary rule that belligerents must announce the area and time of war zones. The Helsinki rule might come into play if there is a chance encounter of belligerent forces and has no effect on war zone declarations.

373. INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 112-17, at 187-95; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.5.2.

374. INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 67, at 21-22; NWP 1-14M ANNOTATED, *supra* note 37, para. 8.2.2.2; *Helsinki Principles* 5.1.2(4), *supra* note 120, at 507.

375. See *supra* note 352 and accompanying text.

376. For example, requirements for placing passengers and crew in safety before destroying an enemy merchantman. *Procès-Verbal* Relating to the Rules of Submarine Warfare Set Forth in Part IV of the Treaty of London of April 22nd, 1930, Nov. 6, 1936, 3 *Bevans* 298, 173 *L.N.T.S.* 353; International Treaty for the Limitation and Reduction of Naval Armaments, Apr. 22, 1930, art. 22(2), 46 *Stat.* 2858, 2881, 112 *L.N.T.S.* 65, 88. See also INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 151, at 218; NWP 1-14M ANNOTATED, *supra* note 37, paras. 8.2.2.2, 8.3, 8.4.

377. INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 118-24, at 195-201; NWP 1-14M ANNOTATED, *supra* note 37, paras. 7.6-7.6.2.

378. See *supra* note 365 and accompanying text.

379. See generally INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 47-52, 136-40, 146, 151-52, at 16-18, 34-38 (citing treaties and custom regarding hospital ships; small coastal rescue craft; vessels granted safe conduct; vessels carrying cultural property; liners carrying only passengers; ships on religious, nonmilitary scientific or philanthropic missions; small coastal fishing boats, coastal traders; vessels that have surrendered; life rafts, life boats); NWP 1-14M ANNOTATED, *supra* note 37, para. 8.2.3; *Helsinki Principles* 5.1.2(5)-5.1.2(6),

[P]ostal correspondence of neutrals or belligerents, whatever its official or private character may be, found on the high seas on board a neutral or enemy ship, is inviolable. If the ship is detained, the correspondence is forwarded by the captor with the least possible delay.

The[se] provisions . . . do not apply, in case of violation of blockade, to correspondence destined for or proceeding from a blockaded port.

. . . .

[I]nviolability of postal correspondence does not exempt a neutral mail-ship from the laws and customs of maritime war as to neutral merchant-ships in general. The ship, however, may not be searched except when absolutely necessary, and then only with as much consideration and expedition as possible.³⁸⁰

Commentators divide on whether a mail *ship* exemption reflects today's law.³⁸¹ Even the Hague XI correspondence exemption is subject to question and limitation because of practice during the world wars.³⁸² The Hague Air Rules adopt the naval warfare rules, whatever they are, for air mail.³⁸³ If a neutral mail ship exemption exists in today's law, such a vessel is subject to the enemy character rules and the consequences those entail. Hague XI and the general law of naval warfare make that clear.³⁸⁴ The "consideration and expedition" language of Hague XI,³⁸⁵ however, if it would be considered law today,³⁸⁶ might be considered an early statement of principles of necessity and proportionality.³⁸⁷

supra note 120, at 507; *infra* note 388 and accompanying text. Neutral aircraft carrying passengers or serving as medical or cartel aircraft are also protected unless they are serving the enemy. See INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 140-45, 153-58, at 36, 38-39; NWP 1-14M ANNOTATED, *supra* note 37, para. 8.2.3; *infra* note 388 and accompanying text.

380. Convention Between the United States and Other Powers Relative to Certain Restrictions with Regard to the Exercise of the Right of Capture in Naval War, Oct. 18, 1907, arts. 1-2, 36 Stat. 2396 [hereinafter Hague XI].

381. Compare INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 136-136.2, at 206-07 (citing 2 OPPENHEIM, *supra* note 112, § 191, at 341-42), with INST. OF INT'L LAW, OXFORD NAVAL MANUAL, *supra* note 351, art. 53, at 866; 2 O'CONNELL, *supra* note 44, at 1123-24; I.A. Shearer, *Commentary, in THE LAW OF NAVAL WARFARE: A COLLECTION OF AGREEMENTS AND DOCUMENTS WITH COMMENTARIES, supra* note 121, at 183, 189; Pietro Verri, *Commentary, in THE LAW OF NAVAL WARFARE: A COLLECTION OF AGREEMENTS AND DOCUMENTS WITH COMMENTARIES, supra* note 121, at 329, 335.

382. 2 OPPENHEIM, *supra* note 112, § 191, at 480-81.

383. Hague Air Rules, *supra* note 221, art. 56, at 216. The Hague Air Rules are considered customary norms. See *supra* note 222. This does not answer the question, however, of what the naval warfare rule is; the Rules may have incorporated nothing by reference when it comes to neutral mail.

384. Hague XI, *supra* note 380, art. 2, 36 Stat. at 2408. See also *supra* notes 259-66 and accompanying text.

385. Hague XI, *supra* note 380, art. 2, 36 Stat. at 2408.

386. See *supra* notes 268-69 and accompanying text.

387. See *supra* note 352 and accompanying text.

Internet-based messages coming to or from exempt vessels or aircraft, such as hospital ships or medical aircraft, are another problem unless they are in the enemy's service.³⁸⁸ While hospital ships, including those of neutrals, may carry and use communications equipment necessary for movement and navigation, there are restrictions on cryptographic communications.³⁸⁹

While much of the preceding analysis discusses the rights of belligerents, it implies correlative duties of neutrals, including the duty not to sail merchant ships that carry war-fighting or war-sustaining goods or to otherwise aid the enemy. The problem for many neutral ships—government-controlled vessels like hospital ships aside—is the entrepreneurial nature of worldwide merchant shipping. Registration is primarily up to the owner;³⁹⁰ however, there are many others, including charterers, subcharterers, and shippers, that can act to give a vessel enemy character by the contracts they sign unbeknownst to governments or owners and charterers further up the line of contracting.³⁹¹ Containerization offers opportunities,³⁹² through false or misleading labeling of bills of lading,³⁹³ for "bootstrapping" a vessel into characterization as an enemy merchantman without the carrier's or owner's (or the carrier's or owner's government's) being aware of the true nature of the cargo. The same is true with respect to direction of merchant shipping; private companies, except in command economies, control merchant ship destinations once vessels have been registered.³⁹⁴ Thus the state of registry has very little

388. See generally, e.g., Second Convention, *supra* note 213, arts. 22, 29, 39, 6 U.S.T. at 3234, 3236, 3242, 75 U.N.T.S. at 100, 102, 108; INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 47(a), 48-51, 53(a), 54, 57-58, at 125, 136-43, 145-46; NWP 1-14M ANNOTATED, *supra* note 37, paras. 8.2.3, at 413-16, 418; 2 PICTET, *supra* note 213, at 155-62, 177-78, 215-22.

389. Second Convention, *supra* note 213, arts. 34, 35(2), 6 U.S.T. at 3238, 3240, 75 U.N.T.S. at 104, 106; INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 171, at 236-37; NWP 1-14M ANNOTATED, *supra* note 37, para. 8.2.3 & n.67; 2 PICTET, *supra* note 213, at 189-96; Roach, *supra* note 309, at 75-76 (criticizing the Manual's analysis).

390. Cf. UNCLOS, *supra* note 44, arts. 91-92, at 433; High Seas Convention, *supra* note 44, arts. 5-6, 13 U.S.T. at 2315, 450 U.N.T.S. at 84-86; U.N. Convention on Registration of Ships, Feb. 7, 1986, arts. 1-14, 26 I.L.M. 1229, 1237-43 (1987).

391. See generally THOMAS J. SCHOENBAUM, ADMIRALTY AND MARITIME LAW §§ 8-1 to 8-5, 9-1 to 9-7 (2d ed. 1994).

392. See generally *id.* § 8-33.

393. See generally *id.* § 8-12 (misleading, inaccurate bills of lading in commercial context; carrier not required to open sealed containers or boxes to check internal condition).

394. See, e.g., *Dominant Navigation Ltd. v. Alpine Shipping Co.*, 1982 American Maritime Cases 1241 (Bauer, Arnold & Berg, Arbs.), LEXIS, Area of Law—By Topic Library, Amc File (describing how worldwide communications route and reroute merchant ships). The same is true for naval vessels. Aircraft have

positive control—apart from blanket directives forbidding certain carriage or destinations for vessels registered in the state—over where vessels cannot go or what they may not carry. The merchant shipping system is like use of public highways in the United States; there are no internal passports like the system of the former USSR, and people may travel where they please, carry what they please (perhaps subject to regulation for freight rates), and are subject to speed limits and occasional police regulation, for example, near the scene of an accident.

3. Neutrality and Aerial Warfare

Rights and duties of neutrals during air warfare follow the same principles for land and naval warfare in some respects. Aircraft, like ground personnel, are subject to the rule of inviolability of neutral territory, which includes airspace above the land and territorial sea.³⁹⁵ Belligerent aircraft must respect a neutral's rights and abstain, within a neutral's jurisdiction, from committing an act that is a neutral's duty to prevent.³⁹⁶ Belligerent military and auxiliary aircraft may not enter neutral airspace.³⁹⁷ Like the rules of naval warfare, neutrals must use the means at their disposal to prevent belligerent military aircraft from entering neutral jurisdiction and compelling the aircraft to land if they have entered.³⁹⁸ A neutral must use means at its disposal to intern a belligerent military aircraft that has landed,

radio communications and can be rerouted, but there are usually fewer options because of fuel constraints.

395. See *supra* notes 295-96 and accompanying text.

396. Hague Air Rules, *supra* note 221, art. 39, at 214. See also Nordic Neutrality Rules, *supra* note 130, art. 9(1), 188 L.N.T.S. at 301, 309, 315, 321, 329; U.S. DEP'T OF THE AIR FORCE, *supra* note 261, para. 2-6c.

397. Maritime Neutrality Convention, *supra* note 128, art. 14, 47 Stat. at 1993; General Declaration, *supra* note 130, paras. 3(a), 3(f), at 605; Hague Air Rules, *supra* note 221, art. 40, at 214; Nordic Neutrality Rules, *supra* note 130, art. 8, 188 L.N.T.S. at 301, 309, 315, 321, 329 (air ambulances excepted); INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 18, at 97; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3.7; 2 OPPENHEIM, *supra* note 112, § 341a, at 341-42; U.S. DEP'T OF THE AIR FORCE, *supra* note 261, para. 2-6c. During World War II neutrals prohibited belligerent military aircraft entry. 11 WHITEMAN, *supra* note 112, at 357-58.

398. Compare Hague Air Rules, *supra* note 221, art. 42, at 214, with Hague XIII, *supra* note 219, art. 25, 36 Stat. at 2432; INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 18; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3.7.1 (neutrals "have an affirmative duty to prevent violation of neutral airspace by belligerent military aircraft, to compel offending aircraft to land, and to intern . . . aircraft and crew"); 2 OPPENHEIM, *supra* note 112, § 341a. See also Hague V, *supra* note 219, art. 5, 36 Stat. at 2323 (land warfare; neutral "must not allow" belligerents' troop movements across its territory); LEVIE, *supra* note 259, at 825. General Declaration, *supra* note 130, at 605, seems to impose an absolute duty ("shall prevent").

together with passengers and crew, and to prevent its and the crew's departure in a condition to make a hostile attack against the belligerent's enemy.³⁹⁹ If a belligerent orders an aircraft from a company or person in neutral territory, the neutral must prescribe a route for the aircraft away from the neighborhood of military operations of the belligerent's opponent and "must exact whatever guarantees may be required to ensure that the aircraft follows the route prescribed,"⁴⁰⁰ a distinction from land warfare rules.⁴⁰¹

A neutral also must "take such steps as the means at its disposal permit to prevent within its jurisdiction aerial observation of the movements, operations or defenses of one belligerent, with the intention of informing the other belligerent."⁴⁰²

As in the case of war on land, a neutral's actions in using force or other means at its disposal to exercise its rights or duties cannot be regarded as a hostile act.⁴⁰³ Furthermore, as in the case of naval force intrusions into neutral territory under Hague XIII, the Hague Air Rules drafters of 1923 probably recognized that not all countries had means to drive off intruding belligerent military aircraft or to intern aircraft and occupants. Perhaps some states did not have the means to detect intruding aircraft. As in the case of land and sea incursions, commentators say that if a neutral is unable or unwilling to prevent unlawful belligerent military aircraft entry or use of its airspace, opposing belligerent forces may take enforcement measures as circumstances require.⁴⁰⁴

399. General Declaration, *supra* note 130, para. 3(f), at 606; Hague Air Rules, *supra* note 221, arts. 42, 46, at 214. *Cf.* Hague XIII, *supra* note 219, art. 24, 36 Stat. at 2432 (stating "[i]f, notwithstanding the notification of the neutral Power, a belligerent ship of war does not leave a port where it is not entitled to remain, the neutral Power is entitled to take such measures as it considers necessary to render the ship incapable of taking the sea during the war . . ."). *See also* 2 LEVIE, *supra* note 259, at 826; U.S. DEPT OF THE AIR FORCE, *supra* note 261, para. 2-6c (mandating detaining the aircraft and crew); *supra* notes 281, 398 and accompanying text.

400. General Declaration, *supra* note 130, para. 3(f), at 605; Hague Air Rules, *supra* note 221, art. 46, at 214.

401. OPPENHEIM, *supra* note 112, § 335a, at 717.

402. Hague Air Rules, *supra* note 221, art. 47, at 215. *See also* Nordic Neutrality Rules, *supra* note 130, art. 13, 188 L.N.T.S. at 303; 2 LEVIE, *supra* note 259, at 827; *Harvard Draft Neutrality Convention*, *supra* note 281, art. 6, at 245.

403. *Compare* Hague Air Rules, *supra* note 221, art. 48, at 215, *with* Hague V, *supra* note 219, art. 10, 36 Stat. at 2324, *and* Hague XIII, *supra* note 219, art. 26, 36 Stat. at 2433 ("unfriendly act"). *See also supra* notes 281, 398 and accompanying text.

404. INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 18; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.3.7.1; TUCKER, *supra* note 112, at 251; U.S. DEPT OF THE AIR FORCE, *supra* note 261, para. 2-6c; U.S.

Belligerent aircraft may conduct visit and search and diversion operations involving neutral shipping, perhaps in cooperation with warships.⁴⁰⁵ Neutral aircraft are subject to visit and search and diversion, and possible destruction, by belligerents.⁴⁰⁶ Perhaps reflecting the futility and controversy of the Great War in publishing advance lists of absolute contraband as the prewar Declaration of London commanded, the 1923 Air Rules just say it is liable to destruction.⁴⁰⁷

Like naval warfare principles, the Air Rules allow a belligerent's force commander to prohibit neutral aircraft from passing in immediate vicinity of the commander's forces or to make the aircraft follow a particular route, if the commander considers the aircraft is likely to prejudice success of military operations.⁴⁰⁸ If a notified aircraft refuses to comply, the belligerent may fire on it.⁴⁰⁹ If a neutral aircraft flies over a belligerent's territory and is warned of an opposing belligerent's military aircraft approaching, the neutral plane must make the nearest available landing or risk being fired on.⁴¹⁰

Although it is not part of the law of naval warfare, the LOS provides that any country can declare a zone of the high seas for

DEPT OF THE NAVY, *supra* note 325, para. 444b. *See also supra* notes 177-82, 280 and accompanying text.

405. *See generally* INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 118-19; NWP 1-14M ANNOTATED, *supra* note 37, para. 7.6.2. *See also supra* notes 366, 377 and accompanying text. These operations cannot be conducted over neutral territory. Nordic Neutrality Rules, *supra* note 130, art. 9(2), 188 L.N.T.S. at 301, 309, 315, 321, 329. *See also supra* notes 261, 334-39, 397 and accompanying text.

406. Hague Air Rules, *supra* note 221, arts. 49-60, at 215-17; INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, paras. 125-34. *See also supra* notes 366, 377 and accompanying text.

407. *Compare* Hague Air Rules, *supra* note 221, art. 60, at 216-17, with Declaration of London, *supra* note 343, art. 22, at 847-48. *See also supra* notes 358-65, 378 and accompanying text.

408. Hague Air Rules, *supra* note 221, art. 30, at 212.

409. *Compare id.* (aircraft entering area of immediate air operations subject to "damages" from hostilities), with INT'L INST. OF HUMANITARIAN LAW, SAN REMO MANUAL, *supra* note 119, para. 108 & cmt. 108.1; NWP 1-14M ANNOTATED, *supra* note 37, paras. 7.8-7.8.1; U.S. DEPT OF THE AIR FORCE, *supra* note 261, para. 2-6b (belligerents cannot deny neutral aircraft access to international airspace even if bound for enemy territory). *See also supra* note 369 and accompanying text. The *Helsinki Principles* declare: "Neutral ships should be aware of the risk and peril of operating in areas where active naval hostilities take place. Belligerents engaged in naval hostilities must, however, take reasonable precautions including appropriate warnings, if circumstances permit, to avoid damage to neutral ships." *Helsinki Principles* 3.2, *supra* note 120, at 504. This does not authorize converting an area of naval operations, and by extension air operations, into a free-fire area and does not change the customary rule that belligerents must warn away neutral aircraft from operational areas. *Id.* The *Helsinki* standard might come into play if there is a chance encounter of belligerent forces with neutral platforms.

410. Hague Air Rules, *supra* note 221, art. 35, at 213. *See also* 2 LEVIE, *supra* note 259, at 827.

conducting naval maneuvers, including dangerous activities such as air operations and gunnery practice, as distinguished from belligerent operations.⁴¹¹ This is part of countries' freedoms of the seas. The military force user must give due notice of the operations.⁴¹² Unlike the LOAC rule allowing a belligerent's commander to exclude shipping from an immediate area of belligerent naval operations,⁴¹³ the LOS allows ships flagged under other states to use this area, and naval forces and other high seas users must have due regard for others' freedom of the seas rights.⁴¹⁴ Neutrals and belligerents alike can use the high seas for this purpose during war as well. In the latter case the LOAC may impact through the LOS "other rules" principle.⁴¹⁵

War zones may be declared on the high seas for neutral aircraft as well as for neutral ships, provided they are limited in duration, are proportional in area to their purpose, and belligerents observe due regard for neutrals' use of the seas. Notice of them must be given. A belligerent's establishing a zone does not relieve it of other LOAC obligations. A war zone cannot be used as a free-fire area. Neutrals or belligerents may declare high seas defense zones affecting aircraft; these also cannot be used as free-fire areas.⁴¹⁶

4. The Law of Neutrality is Not Lost in Space

Internet communications may implicate satellite or other space vehicle links, and therefore IW may have a space component.⁴¹⁷ However, the space conventions declare that

411. See *supra* note 310 and accompanying text.

412. NWP 1-14M ANNOTATED, *supra* note 37, para. 2.4.3.1. See also *supra* note 311 and accompanying text.

413. See *supra* note 369 and accompanying text.

414. See *supra* notes 293, 306-09, 328 and accompanying text.

415. See *supra* notes 230-31, 302-05 and accompanying text.

416. See *supra* notes 316-24, 328, 372 and accompanying text.

417. OFFICE OF GENERAL COUNSEL, *supra* note 233, at 30-33, lists these treaties with information systems or IW ramifications: Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water, Aug. 5, 1963, 14 U.S.T. 1313, 480 U.N.T.S. 43; Outer Space Treaty, *supra* note 298, 18 U.S.T. at 2410, 610 U.N.T.S. at 205; Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space, Apr. 22, 1968, 19 U.S.T. 7570, 672 U.N.T.S. 119 [hereinafter Rescue & Return Agreement]; Convention on the International Liability for Damage Caused by Space Objects, Mar. 29, 1972, 24 U.S.T. 2389, 961 U.N.T.S. 187 [hereinafter Liability Convention]; Convention on Registration of Objects Launched into Outer Space, Jan. 14, 1975, 28 U.S.T. 695, 1023 U.N.T.S. 15 [hereinafter Registration Convention]; ENMOD, *supra* note 298, 31 U.S.T. at 333, 1108 U.N.T.S. at 151; Moon Treaty, *supra* note 298, 1363 U.N.T.S. at 3; Treaty on the Limitation of Anti-Ballistic Missile Systems, May 26, 1972, U.S.S.R.-U.S., 23 U.S.T. 3435. See also Aldrich, *supra* note 1, at 254-55; *supra* notes 50, 54 and accompanying text.

outer space must be used for peaceful purposes, and furthermore, outer space is the common heritage of humankind.⁴¹⁸ To the extent that the proposition that the peaceful purposes principle does not preclude military operations in space,⁴¹⁹ outer space treaty law offers little guidance on the law of neutrality. In common with all treaties, the space conventions may be trumped by the U.N. Charter and its provisions in Article 2(4), by the right of self-defense, by Security Council decisions,⁴²⁰ and by *jus cogens* norms, which may include self-defense.⁴²¹ Principles from the law of treaties may apply including fundamental breach, impossibility, fundamental change of circumstances, and war's termination or suspension of treaties.⁴²² One feature of space law common with the LOS, and perhaps air law, is a requirement that outer space users must have due regard for others' rights; extending this principle during war in space to the LOAC should follow the maritime warfare model.⁴²³

418. Moon Treaty, *supra* note 298, art. 3, 1363 U.N.T.S. at 23; Outer Space Treaty, *supra* note 298, art. 4, 18 U.S.T. at 2413-14, 610 U.N.T.S. at 208. The concept began with the Antarctic Treaty. See generally Antarctic Treaty, *supra* note 298, 12 U.S.T. at 794, 402 U.N.T.S. at 71. See also *supra* notes 298, 417 and accompanying text.

419. J.E.S. FAWCETT, INTERNATIONAL LAW AND THE USES OF OUTER SPACE 34-36 (1968). Cheng, while arguing that the view of the U.S. and other States that the space treaties' peaceful purposes language means only a prohibition on aggression in space is wrong and that the peaceful purposes clauses mean no military use of space or space objects, concedes that the clauses are not clear and need definition, perhaps in a future agreement. BIN CHENG, STUDIES IN INTERNATIONAL SPACE LAW 368, 413, 513-22, 528, 533, 650-52 (1997). Nowhere, however, does Cheng consider the impact of Article 103 of the U.N. Charter and the right of self-defense under Article 105 of the U.N. Charter. See *id.* See also *supra* notes 183-84 and accompanying text.

420. U.N. CHARTER arts. 2(4), 25, 48, 51, 103. See also FAWCETT, *supra* note 419, 3, 34-35, 37-40; MCDUGAL ET AL., *supra* note 325, at 295-97, 403; *supra* notes 124, 168-74, 297-301 and accompanying text.

421. Vienna Convention, *supra* note 44, arts. 53, 64, 1155 U.N.T.S. at 344, 347. See also *supra* notes 166, 227 and accompanying text.

422. Vienna Convention, *supra* note 44, arts. 60-62, 1155 U.N.T.S. at 346-47. See also *supra* notes 223-36 and accompanying text (noting that war cannot suspend obligations under the LOAC, neutrality law or humanitarian law). The same caveat applies in the space arena. Vienna Convention, *supra* note 44, art. 62, 1155 U.N.S.T. at 347.

423. Outer Space Treaty, *supra* note 298, art. 9, 610 U.N.T.S. at 209-10. See also *supra* notes 306-09, 328 and accompanying text.

Perhaps the chief value of space law is the models commentators advocated when there was a near-vacuum in black-letter law. For example, commentators suggested that the LOS,⁴²⁴ air law,⁴²⁵ the LOAC,⁴²⁶ and perhaps admiralty and maritime law⁴²⁷ may be analogized to space law issues when there were no treaties, custom, or principles dealing specifically with space law.⁴²⁸ Since these commentators wrote, treaties have entered the field to supply standards and rules.⁴²⁹ The concept of looking to other areas of international law, however, such as the LOS or the law of naval and air warfare, remains for filling gaps.⁴³⁰ The process for cyberspace may have already begun.⁴³¹

424. *E.g.*, CHENG, *supra* note 419, at 31-51; FAWCETT, *supra* note 419, at 20, 61, 66 (discussing Continental Shelf Convention, *supra* note 230, 499 U.N.T.S. at 311; Fishery Convention, *supra* note 230, 17 U.S.T. at 138, 559 U.N.T.S. at 285; High Seas Convention, *supra* note 44, 13 U.S.T. at 2312, 450 U.N.T.S. at 82); MCDUGAL ET AL., *supra* note 325, at 230, 295, 298-99, 300, 302, 657, 669 (discussing Continental Shelf Convention, *supra* note 230, 499 U.N.T.S. at 311; High Seas Convention, *supra* note 44, 13 U.S.T. at 2312, 450 U.N.T.S. at 82; Territorial Sea Convention, *supra* note 230, 15 U.S.T. at 1606, 516 U.N.T.S. at 205; temporary closure of high seas area for military maneuvers or weapon testing; and the "floating territory" concept, jurisdiction, and immunities); IRVIN L. WHITE, *DECISION-MAKING FOR SPACE: LAW AND POLITICS IN AIR, SEA AND OUTER SPACE* 61-100 (1970). *But see* Oscar Schachter, *Remarks*, 1986 PROC. AM. SOC'Y INT'L L. 368, 375-76 (commenting on Outer Space Treaty, *supra* note 298, 18 U.S.T. at 2410, 610 U.N.T.S. at 205).

425. *E.g.*, FAWCETT, *supra* note 419, at 31 (discussing Chicago Convention, *supra* note 296); MCDUGAL ET AL., *supra* note 325, at 307-10, 578-79, 584-85, 590, 592, 594-95, 606-20, 622-24, 657, 684, 694, 713-14, 716-17, 725-27 (discussing ADIZs; aircraft in distress principles; Chicago Convention; Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface; draft aerial collision convention); WHITE, *supra* note 424, at 101-120.

426. *E.g.*, MCDUGAL ET AL., *supra* note 325, at 299 (discussing neutral-proclaimed defense zones).

427. *E.g.*, *id.* at 610-13, 620-23 629-31, 705-06, 708-24 (nuclear-powered merchant ship accident liability; use of nautical rules of the road; collision, pollution, personal injury principles (citing *Lauritzen v. Larsen*, 345 U.S. 571 [1953])); jurisdiction and immunity).

428. Registration Convention, *supra* note 418, at 16-19.

429. *E.g.*, *id.*; Liability Convention, *supra* note 417, 24 U.S.T. at 2389, 961 U.N.T.S. at 187; Outer Space Treaty, *supra* note 298, arts. 6-8, 18 U.S.T. at 2410, 610 U.N.T.S. at 205.

430. *E.g.*, CHENG, *supra* note 419, at 640-50; Paul G. Dembling, *Some Thoughts About Sovereign Rights Arising from Space Activities*, 1994 PROC. AM. SOC'Y INT'L L. 259, 260, 262-64; Stephen Gorove, *Remarks*, 1987 PROC. AM. SOC'Y INT'L L. 505, 506; N. Jasentuliyana, *Remarks*, 1986 PROC. AM. SOC'Y INT'L L. 368, 369, 373. *See also* J.N. SINGH, *OUTER SPACE, OUTER SEA, OUTER LAND, AND INTERNATIONAL LAW* 103-05, 238-39 (1987) (proposing an Outer Space Organization to manage these issues).

431. *See* Dunne, *supra* note 6, at 12-15 (discussing contract theory to combat computer intrusions).

5. Conclusions: The Current State of the Law of Neutrality

The current state of the law of neutrality, as it applies in any context, raises issues of degrees of neutrality—permanent neutrality, distinguished from ad hoc neutrality, circumstances of neutrality for countries proclaiming neutrality on an ad hoc basis, and different responses for states, depending on the modality of warfare—land, sea, air, or space—and geographic location for the situation—high seas or territorial waters. Neutrals retain rights of self-defense and other lawful responses, including reprisals not involving use of force or retorsions. As incidents of the right of self-defense, they may establish temporary self-defense zones around their naval and air forces on the high seas, join defensive alliances if their national neutrality policies allow it, and otherwise protect their territorial integrity through self-defense measures. They may claim state of necessity against other states as an incident of self-defense. Neutrals, like all states, are subject to the law of the sea, including the right of intervention to prevent high seas pollution. They may proclaim ADIZs. Like all states, neutrals may not violate the territorial integrity or political independence of other countries, however.

Neutrals, like all states, are subject to the LOAC and humanitarian law as it applies to them. In LOS situations, they are subject to the other rules and due regard principles. Law of treaties doctrines, such as rules for treaties during war, also apply to them.

The general rule is that belligerents may not commit hostile acts in neutral territory or above neutral territory in air war; neutral territory includes neutrals' territorial seas and the airspace above them. A neutral must prevent belligerents' use of its land territory and must use means at its disposal to prevent belligerents' use of its territorial sea, airspace, or land for maritime or aerial warfare. There are specific rules for telephonic or telegraph communications and facilities, including undersea cables; belligerents' warships in neutral territorial waters; high seas mining; neutrals' and belligerents' rights and duties concerning blockade, high seas visit and search, and contraband; and immunity of certain classes of vessels from capture or destruction while fulfilling their mission. Belligerents may exclude neutral ships from an immediate area of naval and air operations on the high seas, and they may proclaim war zones to warn all shipping of danger in a high seas area. They must have due regard for neutral interests in sea areas like the EEZ and must have due regard for the maritime environment. The law of air warfare has correlative rules for visit and search of aircraft, and a belligerent force commander may prohibit neutral aircraft

from passing in the immediate vicinity of the commander's forces on land or sea. Although space law has developed few rules for neutrality situations, war in space should follow norms of these older modes in analogous situations. Given the fluidity of the space medium, and the same characteristic of IW using the Internet, should not the same principle of derivation by analogy be employed?

IV. APPLYING PRINCIPLES OF SELF-DEFENSE, CHARTER LAW, AND THE LAW OF NEUTRALITY TO INFORMATION WARFARE (IW) SITUATIONS

The law of warfare has little, if any, direct reference to problems of armed conflict involving IW. The Charter applies across the board to all treaties and perhaps customary law, too.⁴³² *Jus cogens* principles apply to treaties and perhaps to customary norms.⁴³³ Although there are a few treaties with some bearing on transmitting of information, such as Hague V and XIII, in most cases analysis must proceed from general custom, general principles, and analysis by analogy. General principles of law occupy an anomalous position among sources of international law. Although the Statute of the International Court of Justice lists them among primary sources that may be cited in cases before the Court,⁴³⁴ and some commentators include them among primary sources for deriving rules of law,⁴³⁵ others accord them secondary status, perhaps as gap-fillers.⁴³⁶ Whichever view one might take, in a new and fast-moving area of the law where there are few guideposts, the only available sources may be general principles of law and commentators' discussions of them.⁴³⁷ Resort to these latter sources is suggested.

What then should be the method of analysis for IW issues?

432. U.N. CHARTER art. 103, para. 10. See also *supra* notes 124, 166 and accompanying text.

433. Vienna Convention, *supra* note 44, arts. 53, 64, 1155 U.N.T.S. at 344, 347. See also *supra* note 166.

434. I.C.J. STATUTE art. 38(1).

435. E.g., BROWNIE, *supra* note 44, at 1-25; 1 OPPENHEIM, *supra* note 112, §§ 9-14; U.S. DEPT OF THE AIR FORCE, *supra* note 261, para. 1-3.a.

436. RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 102(4); GERHARD VON GLAHN, LAW AMONG NATIONS: AN INTRODUCTION TO PUBLIC INTERNATIONAL LAW 20-21 (6th ed. 1992); SCHACHTER, *supra* note 168, at 50-55. Cf. NWP 1-14M ANNOTATED, *supra* note 37, paras. 5.4-5.4.2 (recognition of custom and treaties).

437. Nearly all sources agree that qualified scholars are only a secondary source, or are evidence of rules of law. I.C.J. STATUTE art. 38(1)(d); RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 103(2)(c); BROWNIE, *supra* note 44, at 24; 1 OPPENHEIM, *supra* note 44, § 14; VON GLAHN, *supra* note 436, at 21. But see, e.g., NWP 1-14M ANNOTATED, *supra* note 37, paras. 5.4-5.4.2 (only custom and treaties recognized).

The first and primary rule should be application of U.N. Security Council decisions⁴³⁸ and mandatory Charter norms, such as the right of self-defense, with its limitations of necessity, proportionality for reaction in self-defense, and admitting of no other alternative in anticipatory self-defense situations.⁴³⁹ The next level of analysis should be application of *jus cogens* norms, to the extent that they exist and apply in analogous IW situations.⁴⁴⁰ The third level should employ the mixture of treaties, custom, etc. that must apply in specific neutrality situations. For example, if Hague V and XIII principles applicable to telecommunications are customary law, they should be applied, perhaps alongside general LOAC principles such as necessity and proportionality in a given situation, except where there is a prohibitory rule, such as the prohibition on first use of poison gas, for which there can be no proportionality or necessity qualifications.⁴⁴¹ In applying these principles to transmitting Internet messages, states will indirectly affect Internet use, as well as the use of other messages sent through the Internet. The fact that cables may be used for Internet-based messages, as well as traditional telephone or telegraph messages,⁴⁴² can be factors for necessity and proportionality, for example.

Where there is no "hard law"—black-letter rules governing conduct, resort must be had to general customary LOAC principles, including military objective, necessity and proportionality, which may be different from similar principles to be observed in self-defense responses.⁴⁴³ The content of the law for these situations might be informed by analogies from custom, treaties, and principles applied in the law of land, sea, air and space law. As will be seen, the LOS, the law of naval warfare, and the law of aerial warfare may offer the most and best analogies for neutrals in IW situations.

A. *Problems Related to Charter Law, Self-Defense, and Related Issues in IW Situations*

Because of the nature of the Internet, with its potential for messages silently crossing neutrals' national borders and into

438. U.N. CHARTER arts. 25, 48, 103 (Council decisions). Nonmandatory U.N. resolutions should carry the same weight they do in other circumstances. See *supra* note 166 and accompanying text.

439. U.N. CHARTER arts. 51, 103. This is particularly true if the right to self-defense is a *jus cogens* norm. See also *supra* notes 124, 166, 168-74 and accompanying text.

440. See *supra* note 166 and accompanying text.

441. See *supra* notes 352, 441 and accompanying text.

442. See *supra* notes 347-52 and accompanying text.

443. See *supra* notes 168-74, 352 and accompanying text.

space and back again, (perhaps through the sender's country),⁴⁴⁴ the possibly ambiguous identity of those who would use it⁴⁴⁵ against sovereign countries,⁴⁴⁶ and methods of attack and responses to them,⁴⁴⁷ there may be more questions than firm answers in analysis of the law of the U.N. Charter, self-defense, and related issues.

Is an Internet message carrying a computer attack against a neutral's territorial integrity, including facilities that would be considered part of its territory, a violation of territorial integrity?⁴⁴⁸ It has been argued that prior encroachments on another state's territory "have been physical intrusions by troops, ships, or planes. Attacking a neutral's networks, satellites, or computers might not violate the [neutral] state's neutrality because it might involve no physical encroachment (and might not even constitute an 'attack' in the first place.)"⁴⁴⁹ Are facilities that are attacked within the meaning of "territory" in the Charter?⁴⁵⁰ Is an Internet-propelled message carrying an attack against a neutral's political independence, such as its election process,⁴⁵¹ a violation of that neutral's political independence?⁴⁵²

What is "attack" or "aggression" that might trigger a self-defense or Security Council response?⁴⁵³ How can an attack or aggressive action meriting response under international law be distinguished from a blundering, accidental or frivolous intrusion?⁴⁵⁴ What about hackers who camouflage their attacks

444. See *supra* notes 53-54 and accompanying text.

445. See *supra* notes 53-54, 69 and accompanying text.

446. U.N. CHARTER art. 2(1). See also *supra* note 199 and accompanying text.

447. See *supra* notes 53-54, 69-79 and accompanying text.

448. See U.N. CHARTER arts. 2(4), 103. See also GREENBERG ET AL., *supra* note 1, at 26; Aldrich, *supra* note 1, at 242-43; *supra* notes 116, 124, 166, 180 and accompanying text.

449. GREENBERG ET AL., *supra* note 1, at 27.

450. For example, banking and stock markets are not considered legitimate LOAC targets. See Scott, *supra* note 41, at 59 (distinguishing between private bank accounts and state accounts). But see Molander et al., *supra* note 22, at 254, 257, 262-63; *supra* note 22 and accompanying text; *infra* note 492 and accompanying text. Might they be considered part of territory for U.N. Charter, art. 2(4), purposes? See *supra* notes 116, 180 and accompanying text. If Charter law may differ from customary or treaty-based LOAC principles, or if the law of U.N. resolutions (for example Security Council decisions under U.N. Charter, arts. 25, 48, 103) may impose conditions different from the LOAC for the same situation, might a different definition of territory for Internet-based attacks be applied?

451. See *supra* notes 22-23, 166, 180 and accompanying text.

452. See U.N. CHARTER arts. 2(4), 103. See also GREENBERG ET AL., *supra* note 1, at 64; *supra* notes 116, 124, 166, 180 and accompanying text.

453. See U.N. CHARTER arts. 25, 39-40, 48, 51, 103. See also GREENBERG ET AL., *supra* note 1, at 27, 83-84; Aldrich, *supra* note 1, at 225-26, 231, 236-37; *supra* notes 116, 124, 166, 168-74, 180 and accompanying text.

454. See Khalilzad, *supra* note 13, at 424.

as blunders?⁴⁵⁵ How can attackers be identified?⁴⁵⁶ Are non-state attackers comprehended within the self-defense rubric?⁴⁵⁷ Economic coercion is not aggression within the meaning of the Charter; is attacking a neutral's central banking system or securities markets an attack or aggression within the meaning of the Charter?⁴⁵⁸ Put more generally, what is use of force? What are illegal uses of force, acts of aggression, or acts of war?⁴⁵⁹ What are standards for necessity; proportionality; and, in the case of anticipatory self defense, a situation admitting of no other

455. See *id.* at 426.

456. See Aldrich, *supra* note 1, at 235-36.

457. See, e.g., SHARP, *supra* note 1, at 219, 225-26 (identifying *inter alia* individual or group terrorists as potentially proper objects of U.S. proportionate response if they display hostile intent or commit hostile acts); U.S. CHAIRMAN OF THE JOINT CHIEFS OF STAFF, INSTRUCTION 3121.01: STANDING RULES OF ENGAGEMENT FOR U.S. FORCES, Encl. A, paras. 5e, 5f (1994), reprinted in NWP 1-14M ANNOTATED, *supra* note 37, at 277, 281-82 [hereinafter CJCS, INSTRUCTION 3121.01]; Aldrich, *supra* note 1, at 236; *supra* notes 175-81 and accompanying text.

458. See GREENBERG ET AL., *supra* note 1, at 27, 84-85; Scott, *supra* note 41, at 59. Molander *et al.* state that strategic IW "tools and techniques present a two-ged threat to U.S. security":

1. A Threat to U.S. National Economic Security: the holding at risk to massive disruption of infrastructure targets critical to the U.S. economy. A successful SIW attack on one or more infrastructures could produce a strategically significant result, including public loss of confidence in the delivery of services from those infrastructures with a resulting loss of confidence in the government.
2. A Threat against the U.S. National Military Strategy: the possibility that a regional adversary might use SIW threats or attacks to deter or disrupt U.S. power-projection plans in a regional crisis. Targets of concern include infrastructures in the United States . . . vital to overseas force deployment and comparable targets in allied countries. A key ally or coalition member under such attack might refuse to join a coalition—or worse, quit one in the middle of a war.

Molander *et al.*, *supra* note 22, at 254. This view would, therefore, seem to differ with Scott to say that attacks on central banks or securities markets would be an attack like those on military components that traditionally have been held to allow response in self-defense. See Scott, *supra* note 41, at 57. Sharp is even more straightforward: "Any computer network attack that intentionally causes any destructive effect within the sovereign territory of another state is an unlawful use of force within the meaning of [U.N. Charter,] Article 2(4) that may produce the effects of an armed attack prompting the right of self-defense." SHARP, *supra* note 1, at 133. See also *id.* at 82, 88-92 (economic coercion within parameters of U.N. Charter, art. 2[4]). The U.S. peacetime rules of engagement ROE seem to make the same claim. See CJCS, INSTRUCTION 3121.01, *supra* note 457, Encl. A, paras. 5e, 5f, reprinted in NWP 1-14M ANNOTATED, *supra* note 37, at 277, 281-82; SHARP, *supra* note 1, at 219, 225-26. For an analysis of ROE, see *infra* notes 462-70 and accompanying text.

459. Aldrich, *supra* note 1, at 225-26, 231, 235-36.

alternative?⁴⁶⁰ Does anticipatory self-defense include an "automatic," pre-programmed response decided in advance and sent automatically when a hack arrives? Countries may legitimately plan for self-defense responses⁴⁶¹ and may establish rules of engagement (ROE),⁴⁶² including methods of self-defense responses. For example, consistent with U.S. policy that includes a possibility of anticipatory self-defense response,⁴⁶³ U.S. peacetime ROE⁴⁶⁴ contemplate responses to other states' actions in hostile intent situations,⁴⁶⁵ in addition to hostile act cases,

460. See U.N. CHARTER arts. 51, 103; GREENBERG ET AL., *supra* note 1, at 87-89; *supra* notes 124, 166, 168-74 and accompanying text.

461. See Walker, 31 CORNELL INT'L L.J., *supra* note 139, at 369; Walker, in THE LAW OF MILITARY OPERATIONS, *supra* note 139, at 392.

462. Rules of engagement (ROE) state options for, and possibly limits on, actions a commander or other decision-maker may take in armed conflict or other situations, for example in self-defense circumstances. They are a mix of policy, law, diplomacy, and operational needs but cannot exceed the limits of the law. In U.S. practice commanders are strongly reminded of their duty to defend their ship, unit, force, etc., and other U.S. forces in the vicinity, *i.e.*, to exercise self-defense, including anticipatory self-defense, pursuant to U.S. policy. See CJCS, INSTRUCTION 3121.01, *supra* note 457, Encl. A, para. 2a, *reprinted in* NWP 1-14M ANNOTATED, *supra* note 37, at 279; BRADD C. HAYES, NAVAL RULES OF ENGAGEMENT: MANAGEMENT TOOLS FOR CRISIS (1989); NWP 1-14M ANNOTATED, *supra* note 37, at xxxvi-xxxvii, paras. 3.11.5.1, 4.3.2.2, 5.5; SHARP, *supra* note 1, at 222; Richard J. Grunawalt, *The JCS Standing Rules of Engagement: A Judge Advocate's Primer*, 42 AIR FORCE L. REV. 245 (1997); J. Ashley Roach, *Rules of Engagement*, NAVAL WAR C. REV., Jan.-Feb. 1983, at 46, *reprinted in* 14 SYRACUSE J. INT'L L. & COM. 865 (1988); Ivan Shearer, *Rules of Engagement and the Implementation of the Law of Naval Warfare*, 14 SYRACUSE J. INT'L L. & COM. 767 (1988).

463. See *supra* note 168 and accompanying text.

464. The United States has separate war ROE. These are not published, for security reasons, but "reaffirm the right and responsibility of the operational commander generally to seek out, engage, and destroy enemy forces consistent with national objectives, strategy, and the law of armed conflict." NWP 1-14M ANNOTATED, *supra* note 37, para. 5.5. See also Christopher Craig, *Fighting by the Rules*, NAVAL WAR C. REV., May-June, 1984, at 23 (U.K. ROE during 1982 Falklands-Malvinas War); Grunawalt, *supra* note 462, at 245; Roach, *supra* note 462, NAVAL WAR C. REV. at 49, SYRACUSE J. INT'L L. & COM. at 869. States may also have peacekeeping or peacemaking operations ROE. See generally Stephen A. Rose, *Crafting the Rules of Engagement for Haiti*, in THE LAW OF MILITARY OPERATIONS: LIBER AMICORUM PROFESSOR JACK GRUNAWALT, *supra* note 139, at 225.

465. CJCS, INSTRUCTION 3121.01, *supra* note 457, Encl. A, para. 5f, *reprinted in* NWP 1-14M ANNOTATED, *supra* note 37, at 282. Sharp defines hostile intent as:

[T]he threat of imminent use of force by a foreign force or terrorist unit (organization or individual) against the United States, U.S. forces, and in certain circumstances, U.S. citizens, their property, U.S. commercial assets, or other designated non-U.S. forces, foreign nationals and their property. When hostile intent is present, the right exists to use proportional force, including armed force, in self-defense by all necessary means available to deter or neutralize the potential attacker or, if necessary, to destroy the threat

such as actual attack or other use of force.⁴⁶⁶ Can planning and ROE include rapid, automatic responses, given the speed that Internet attacks can debilitate vital national systems?⁴⁶⁷ Today commercial Internet service providers offer screeners to dump unwanted e-mails automatically;⁴⁶⁸ if so, can governments use similar screeners, among other defenses like firewalls,⁴⁶⁹ to automatically respond to hackers?⁴⁷⁰ Will this kind of procedure increase risk of mistakes like the Airbus tragedy during the Tanker War⁴⁷¹ with worldwide consequences, including diplomatic, national political—recall Vietnam War protests within the United States, legal, economic, and other consequences?⁴⁷²

SHARP, *supra* note 1, at 94-95, 226. Sharp and *Instruction 3121.01* remind commanders of an overriding obligation to defend their ship(s), unit(s), etc., and other U.S. forces in the vicinity. CJCS, INSTRUCTION 3121.01, *supra* note 457, Encl. A, para. 2a, reprinted in NWP 1-14M ANNOTATED, *supra* note 37, at 279; SHARP, *supra* note 1, at 222. See also *supra* notes 175-81, 457 and accompanying text.

466. CJCS, INSTRUCTION 3121.01, *supra* note 457, Encl. A, para. 5e, reprinted in NWP 1-14M ANNOTATED, *supra* note 37, at 281. "Hostile act" has been defined as:

[A]n attack or other use of force by a foreign force or terrorist unit (organization or individual) against the United States, U.S. forces, and in certain circumstances, US citizens, their property, U.S. commercial assets, and other designated U.S. forces, foreign nationals and their property. It is also force used directly to preclude or impede the mission and/or duties of U.S. forces, including the recovery of U.S. personnel and vital U.S. Government property. When a hostile act is in progress, the right exists to use proportional force, including armed force, in self-defense, by all necessary means available to deter or neutralize the potential attacker or, if necessary, to destroy the threat. . . .

SHARP, *supra* note 1, at 94, 226. See also *supra* note 465 and accompanying text.

467. See *supra* notes 22-24, 77 and accompanying text.

468. For example, my service provider does so. It declared through its e-mail system that it had stopped the "I love you" virus. See *supra* note 20 and accompanying text.

469. See *supra* notes 69-79 and accompanying text.

470. Khalilzad suggests:

[O]nce one suspects that a particular machine might have been used for an attack . . . , one might be able to insert a code into the suspect group's machine to perform intelligence gathering on line. Such a code, for example, could make a special record of outgoing connections to systems . . . and periodically send them to a[n] . . . intelligence officer. This officer then compares them to tactical warnings of break-ins.

Khalilzad, *supra* note 13, at 431. Such warning measures would require supplementation by traditional intelligence gathering. See *id.*

471. See David K. Linnan, *Iran Air Flight 655 and Beyond: Free Passage, Mistaken Self-Defense, and State Responsibility*, 16 YALE INT'L L.J. 245 (1991).

472. *Id.* at 252-57 (citing U.S. DEP'T OF DEFENSE, INVESTIGATION REPORT: FORMAL INVESTIGATION INTO THE CIRCUMSTANCES SURROUNDING THE DOWNING OF IRAN AIR FLIGHT 655 ON 3 JULY 1988 (1988), in INT'L CIVIL AVIATION ORG., FACT-FINDING INVESTIGATION: DESTINATION OF IRAN AIRBUS A300 IN THE VICINITY OF QESHM ISLAND, ISLAMIC REPUBLIC OF IRAN ON 3 JULY 1988 app. E (1988) [hereinafter U.S. DEP'T OF

An Internet attacker can, of course, have international opinion turned against it,⁴⁷³ particularly if a targeted neutral state can claim international law violations. Are there warning systems to increase time for response and to consider an appropriate response, and thereby decrease chances of a mistake?⁴⁷⁴ If a state responds to a computer-based attack by other means, such as a bombing that would be considered necessary, proportional, and admitting of no other alternative if a more traditional attack on it had occurred, would this be characterized as a reprisal using force or an initial armed attack, entitling the kinetic attacker to claim a right of self-defense?⁴⁷⁵ Does an Internet-based response to a kinetic attack that promotes political instability in the attacking state⁴⁷⁶ risk a claim of violating the attacking state's political independence, if the initial Internet attack does not rise to the level of aggression or attack within the

DEFENSE, IRAN AIR FLIGHT 655 REPORT]). For other accounts, see generally 2 CORDESMAN & WAGNER, *supra* note 153, at 573-84; DILIP HIRO, *THE LONGEST WAR: THE IRAN-IRAQ MILITARY CONFLICT* 210-12 (1991); Louise Doswald-Beck, *Vessels, Aircraft and Persons Entitled to Protection During Armed Conflict at Sea*, 65 BRIT. Y.B. INT'L L. 211, 271-74 (1994); Norman Friedman, *The Vincennes Incident*, U.S. NAVAL INST. PROC., May 1989, at 72; Bud Langston & Don Bringle, *The Air View: Operation Praying Mantis*, U.S. NAVAL INST. PROC., May 1989, at 54; Menefee, *supra* note 153, at 110, 129-30; J.B. Perkins III, *The Surface View: Operation Praying Mantis*, U.S. NAVAL INST. PROC., May 1989, at 66, 70; *The Vincennes Incident*, U.S. NAVAL INST. PROC., Apr. 1990, at 19. Iran claimed the United States was guilty of aggression. Djamchid Momtaz, *Commentary*, in *THE IRAN-IRAQ WAR (1980-1988) AND THE LAW OF NAVAL WARFARE*, *supra* note 153, at 19, 32-33 (citing a statement of the Iran Foreign Affairs Minister before the UN Security Council). The United Kingdom supported the U.S. self-defense claim. Answer by U.K. Secretary of State for Foreign and Commonwealth Affairs, July 6, 1988, 136 PARL. DEB., H.C. (6th ser.) (1988) 1046. See also A.V. Lowe, *supra* note 154, at 241, 252. Soviet media claimed the United States was trying to "kindle" the war. Robert S. Litwak, *The Soviet Union and the Iran-Iraq War*, in *THE IRAN-IRAQ WAR: IMPACT AND IMPLICATIONS* 200, 210 (Efraim Karsh ed., 1989). Gamlen and Rogers offer a partial factual summary in criticizing the attack. Gamlen & Rogers, *supra* note 153, at 142-43. The tragedy may have helped promote an end to the war. WELLENS, *supra* note 196, at 443, 445. Iran's suit against the United States in the International Court of Justice was settled in 1996 without any admission of U.S. liability. See Settlement Agreement on the Case Concerning the Aerial Incident of July 3, 1988 Before the International Court of Justice, Feb. 9, 1996, 35 I.L.M. 572 (1996). See also Nichiporuk, *supra* note 52, at 190.

473. See Nichiporuk, *supra* note 52, at 194-96.

474. See Khalilzad, *supra* note 13, at 428-30.

475. See GREENBERG ET AL., *supra* note 1, at 85-86. See also U.N. CHARTER arts. 51, 103; *supra* notes 124, 166, 168-74 and accompanying text. Although discussing proportionality in an LOAC context, Arquilla says it may be seen as an element of "just" warfighting. Arquilla, *supra* note 106, at 382-83. While proportionality in self-defense may be different from proportionality in LOAC cases, the "justness" of a response may be a factor in both, at least insofar as the public sees the issue.

476. See Nichiporuk, *supra* note 52, at 197.

meaning of the Charter?⁴⁷⁷ Does the route of an otherwise valid response to an Internet attack raise neutrality violation issues if responsive action travels across neutral states' borders on its way to the source of the attack?⁴⁷⁸ Is there the possibility of a runaway series of Internet-based actions, responses (whether anticipatory or reactive), counter-responses (whether anticipatory or reactive), perhaps involving other modalities of response or counter-response that deepens a crisis until it gets out of control and leads to war?⁴⁷⁹ The author has advocated the principle, derived from the LOAC, that decision-makers in self-defense situations are liable for what they know, or should know, when they authorize self-defense responses.⁴⁸⁰ How does this principle fit into the "automatic response" situation?

When may nonforce reprisals be applied, and what are proper reprisals?⁴⁸¹ When may retorsions be applied, and what are proper retorsions?⁴⁸² When does a state of necessity arise, and what are circumstances in the Internet context that the situation arises?⁴⁸³ Do these possible responses raise the same kinds of risks that self-defense responses, whether anticipating or reacting to a hack attack, raise?⁴⁸⁴

Who are persons, entities, or facilities that are proper subjects for a self-defense, reprisal, retorsionary, or state of necessity response? How may they be identified?⁴⁸⁵ Responding to a root cause of the problem—for example, foreign country's computer and its operators that start a message on its way—may be permissible, but what about computers, personnel, and situs

477. See U.N. CHARTER arts. 2(4), 51, 103; *supra* notes 116, 124, 166, 168-74, 180 and accompanying text.

478. See GREENBERG ET AL., *supra* note 1, at 89. See also U.N. CHARTER arts. 2(4), 103; *supra* notes 116, 124, 180 and accompanying text.

479. Convention Relative to the Opening of Hostilities could not seem to halt the slide into World War I. See Convention Relative to the Opening of Hostilities, Oct. 18, 1907, 36 Stat. 2259 (1907). See also ALAN PALMER, THE CHANCELLERIES OF EUROPE 226-30 (1983); A.J.P. TAYLOR, THE STRUGGLE FOR MASTERY IN EUROPE: 1848-1918 at 520-30 (1954); BARBARA TUCHMAN, THE GUNS OF AUGUST 91-157 (1962). Prewar communications and other actions before the Coalition invasion of Iraq and Kuwait in the 1990-91 Gulf War echoed this kind of frantic maneuvering. *E.g.*, Walker, *supra* note 195, at 27-40. A big problem with an Internet-related crisis is the time factor. See *supra* notes 22-24, 77, 426, 464 and accompanying text.

480. Walker, 31 CORNELL INT'L L.J., *supra* note 139, at 370-74; Walker, in THE LAW OF MILITARY OPERATIONS, *supra* note 139, at 393.

481. See *supra* note 175 and accompanying text.

482. See *supra* note 176 and accompanying text.

483. See *supra* notes 177-81 and accompanying text.

484. See *supra* notes 177-81, 342 and accompanying text.

485. See Khalilzad, *supra* note 13, at 420-22, 427-28. See also *supra* notes 53-54, 69 and accompanying text.

countries that are intermediate way stations?⁴⁸⁶ Might responses trigger self-defense or other responses, such as nonforce reprisals or retorsions, that exacerbate a crisis?

There are no black-letter, clear-cut rules for responses to any of these questions, any more than in prior confrontations like the Airbus tragedy, where U.S. claims of self-defense were met by Iran's claim of aggression.⁴⁸⁷ The only thing that can be predicted with fair confidence is that Internet confrontations will arise in the future. They will be met with claims of right, including aggression versus self-defense and violation of law versus legitimate reprisal or retorsion. They will be resolved by resort to general principles of law, some grounded in the Charter, perhaps in a highly charged political, economic, or diplomatic arena, and probably applied by analogy.⁴⁸⁸ It is therefore very likely, at least in the foreseeable future, that resort to principles flowing from the Charter, and analogies to prior situations and Charter law's response to them, will supply the substance of law applying to Internet-generated crises, incursions, and attacks. Security Council decisions and other, nonbinding resolutions may apply, however.⁴⁸⁹ The same rules apply to other international organizations, the ITU or IMO, for example, and their resolutions or other actions.

Issues in the Internet and IW contexts abound once a war transitions from *jus ad bellum* and application of Charter law to *jus in bellum*, where the LOAC governs, the subject of Parts. IV.B-IV.E.

B. Neutrality, Land Warfare, and Information Warfare

Implications for IW from the law of neutrality relating to neutral land territory⁴⁹⁰ are several. As noted above, Charter law may affect the law of neutrality; treaty suspension or termination principles may apply for agreements other than those dealing with warfare.⁴⁹¹ Belligerent attack must be conditioned on LOAC military objective, necessity, and proportionality principles,

486. See GREENBERG ET AL., *supra* note 1, at 89. See also *supra* notes 53-54 and accompanying text.

487. See *supra* notes 471-72 and accompanying text.

488. Cf. I.C.J. STATUTE 38(1)(c). See also, e.g., *supra* note 472 and accompanying text.

489. U.N. CHARTER arts. 25, 48, 103. See also *supra* note 166 and accompanying text.

490. See *supra* notes 272-92 and accompanying text.

491. See *supra* notes 187-218, 223-36 and accompanying text.

unless a specific rule applies, such as prohibition on the first use of gas attacks.⁴⁹²

A neutral has a duty to prevent the use of its territory for a belligerent's operations base or as a sanctuary.⁴⁹³ The activity, depending on personnel involved, may violate the neutral's territorial integrity or political independence under the Charter.⁴⁹⁴ If a neutral knows or has reason to know of activity within its territory involving Internet use that is unneutral in nature, the neutral must act to end that activity under the LOAC, and it may invoke the Charter if the activity involves a violation of the neutral's territorial integrity. If a neutral may be required to mobilize forces to ensure fulfilling its responsibility to prevent belligerent forces from crossing into its territory, and thus act in self-defense,⁴⁹⁵ by analogy it may be argued that a neutral may mobilize or order its forces to counter an Internet attack conducted from its territory, even if belligerent forces are not involved. If Internet attacks involve war materials and supplies; if they belong to the belligerent, either as a matter of title or use; and they are within a neutral's borders, the neutral can act against the materials and supplies. If belligerent forces operate the computers, etc., a case for neutral action is stronger.

If a neutral does not or cannot effectively enforce compliance, an aggrieved belligerent may take proportional action, either under the law of self-defense or the LOAC, to counter these Internet activities.⁴⁹⁶ Of course, there is a risk a neutral may assert a violation of its territorial integrity by the aggrieved belligerent and resort to self-defense measures.⁴⁹⁷ In these situations, an aggrieved belligerent's prior notice to the neutral may be prudent, unless the neutral is seen as cooperating with an offending belligerent.

492. Schmitt, *Bellum*, *supra* note 36, at 1075-81. *See also supra* notes 352, 361, 441 and accompanying text. Schmitt states that attacks on national securities markets or financial systems are not proper military objectives today. Schmitt, *supra* note 12, at 156-57. Scott would distinguish between attacks on private citizen's bank accounts and attacks on state accounts. Scott, *supra* note 41, at 59. Beyond these tentative examinations of the law of neutrality in an LOAC context, the commentators' principal thrust has been the relationship of Internet attacks and defenses in self-defense situations. *See supra* notes 444-89 and accompanying text.

493. *See supra* note 261 and accompanying text.

494. U.N. CHARTER art. 2, para. 4, art. 103. *See also supra* notes 124, 159, 166 and accompanying text.

495. U.N. CHARTER arts. 51, 103. *See also supra* notes 69-76, 124, 166, 168-74 and accompanying text.

496. *See supra* notes 177-81, 342 and accompanying text.

497. U.N. CHARTER arts. 51, 103. *See also supra* notes 124, 166, 168-74, 279 and accompanying text.

If belligerents may not build radio stations on neutral territory, by analogy they cannot use Internet "stations" in neutral territory; therefore, a neutral must shut them down.⁴⁹⁸ If a neutral does not have means or willingness to do so, an aggrieved belligerent may take proportional action.⁴⁹⁹ It seems, however, that if neutrals need not control their own stations, or their nationals acting in private capacity,⁵⁰⁰ there is no obligation to do the same for Internet information thus passed to a belligerent under the Hague law. Query whether patterns of neutrals' controlling radio stations in two world wars⁵⁰¹ give some support to establishing a customary norm obliging neutrals to do so in future conflicts involving IW.

Land warfare railway rolling stock rules offer interesting parallels. If a belligerent may not use neutral-owned stock unless absolutely necessary but may seize stock a belligerent uses to carry war goods,⁵⁰² could it not be argued by analogy that belligerents may not "seize" neutrals' Internet transmissions except in emergency, but that if a neutral allows Internet use for messages harmful to a belligerent, those parts of the Internet are fair game?

If neutrals have discretion to authorize passage for belligerents' sick and wounded armed forces personnel while assuming responsibility for their control and safety,⁵⁰³ could it be argued that a neutral may, but is not required to, allow Internet messages regarding belligerent sick and wounded, if the neutral can be sure that no information affecting the war is passed home?⁵⁰⁴ Similarly, a prisoner of war staying in neutral territory⁵⁰⁵ may not be allowed Internet access to send information home that amounts to belligerent activity, any more than the prisoner of war should be allowed to mail, telephone, televise, etc., information.

498. See *supra* notes 280-87 and accompanying text.

499. See *supra* note 277 and accompanying text.

500. See *supra* note 287 and accompanying text.

501. The record of practice is less than clear. See *supra* note 282 and accompanying text.

502. See *supra* notes 288-89 and accompanying text.

503. See *supra* note 292 and accompanying text.

504. This is by analogy from rules that vehicles transporting sick and wounded carry no combatants or war materials and from rules for belligerent radio stations on neutral territory. See *supra* notes 280-87, 292 and accompanying text.

505. See *supra* note 292 and accompanying text.

C. *Neutrality at Sea, Naval Warfare, and Information Warfare*

The same Charter principles applicable to land warfare apply to war at sea, including any IW component.⁵⁰⁶ Ocean users, whether neutral or belligerent, must pay due regard⁵⁰⁷ to other neutral ocean users' rights and freedoms, in addition to the rules of naval warfare, which apply in armed conflict situations through the LOS conventions' "other rules" clauses.⁵⁰⁸ Treaty suspension or termination principles also may apply.⁵⁰⁹ General military objective, necessity, and proportionality principles in attack govern as in land warfare.⁵¹⁰

Hague XIII, governing maritime neutrality, imposes virtually the same rules as Hague V, governing land warfare, in forbidding belligerent use of neutral ports and waters for building wireless telegraphy stations or any apparatus for communicating with belligerent forces. Belligerents cannot use neutral ports or waters as a base of operations.⁵¹¹ The same considerations and applications of these principles in land warfare should apply to IW issues in maritime warfare situations.⁵¹² Moreover, because these principles are included in two major multilateral treaties and the regional Maritime Neutrality Convention, their common principles are strengthened.⁵¹³

There is an important difference between neutrals' duties with respect to movement of belligerent troops across neutral land territory and movement of belligerent naval forces into neutral ports and waters. The duty to repel troop movements is absolute, while the duty to detect and oust belligerent naval forces is subject to the neutral's having the means to do so.⁵¹⁴ A neutral is only "entitled," not required, to intern a belligerent warship when that ship should have departed its waters.⁵¹⁵

506. See U.N. CHARTER art. 103. See also *supra* notes 124, 166 and accompanying text.

507. See *supra* notes 306-09 and accompanying text.

508. See *supra* notes 127-28, 302-05 and accompanying text.

509. See *supra* notes 223-36 and accompanying text.

510. What is necessary or proportional in a self-defense situation may not be necessary or proportional in an LOAC-governed case or vice versa. See *supra* notes 352, 441 and accompanying text.

511. See *supra* notes 334-37 and accompanying text.

512. See *supra* notes 498-501 and accompanying text.

513. Hague V, *supra* note 219; Hague XIII, *supra* note 219; Maritime Neutrality Convention, *supra* note 128, 47 Stat. at 1989, 135 L.N.T.S. at 187; I.C.J. STATUTE 38(1); Vienna Convention, *supra* note 44, at 333, 341; RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 102(3) & cmt. f; BROWNLIE, *supra* note 44, at 5; 1 OPPENHEIM, *supra* note 44, at 28, 11, 32-36.

514. See *supra* notes 264-65, 275, 322 and accompanying text.

515. See *supra* note 338 and accompanying text.

When the Hague Conventions were signed in 1907, many countries did not have navies, forces, or detection capability sufficient to oust a belligerent naval force or to intern it. There must have been a presumption that any state could use its military or other forces, perhaps its police, to repel a belligerent troop movement, but that might not have been the case for naval incursions. The same is true today. For IW neutrality principles, one might argue that a neutral's duty to act to prevent belligerent IW warfare from within its territory is not absolute; rather, it is conditional on the neutral's ability to detect IW activity and its capacity to act to counter this activity. Not every country has computer and related systems as sophisticated as the United States, for example; they should not be held to an absolute duty.⁵¹⁶ If that is the case, computer-sophisticated nations like the United States must be held to the same duty, *i.e.*, use of means at the United States' disposal, which might be considerable.

Principles governing destruction of undersea cables strengthen a view that belligerents can operate to seize or destroy Internet connections in enemy territory and in areas subject to no state's sovereignty, such as the high seas, when a belligerent controls that area, perhaps during a blockade. Belligerents can seize or destroy cables connecting enemy territory with neutral territory, but only a terminus in enemy territory.⁵¹⁷ These cables may be seized or destroyed only "in cases of absolute necessity;" general principles of necessity and proportionality⁵¹⁸ must be observed.⁵¹⁹ No distinction is made between publicly and privately owned cables.⁵²⁰ Neutrals' control of radio broadcasting within their territorial waters during two world wars is another example of proper control of electronic emissions by neutrals within their territories. If neutrals had this obligation for radio, the "Internet" of the day, is it not also true for today's Internet-based communications?⁵²¹

Issues related to contraband, visit and search or diversion, destruction of neutral merchant ships that have acquired enemy character,⁵²² or ships or aircraft believed to be aiding the enemy

516. Schmitt, *Bellum*, *supra* note 36, at 1088-89; *supra* note 49 and accompanying text.

517. *See supra* note 351 and accompanying text.

518. *See supra* notes 282-88, 352, 441 and accompanying text.

519. *Id.*

520. *See supra* note 351 and accompanying text.

521. There may not have been consistent practice on this point, even by the same country. *See supra* notes 278-87 and accompanying text.

522. *See supra* notes 358-68, 373-77 and accompanying text.

although otherwise exempt,⁵²³ might seem to have little to do with IW. Certain general principles, however, might be derived and used in IW contexts.

Given Internet technology's exponential growth, it would seem extraordinarily useless to go through a lengthy treaty negotiation process to draft an agreement listing prohibited Internet behaviors or actions that would be as out of date as the computers that began to produce the treaty at the start of the drafting and negotiation process. This was the experience of trying to define contraband. The lesson from contraband law is that in a fast-developing or ever-changing scenario, trying to go beyond general principles is rarely wise, except in the obvious situation where everyone agrees on rules. Examples of this include "hospital ship" provisions when they are not used to further an enemy war effort and poison gas usage if there is no first use.⁵²⁴

If we analogize dealing with Internet messages to neutral merchantmen on the high seas, could an electronic "visit and search," followed by appropriate proportional and necessary action, perhaps electronic diversion, be devised for belligerents to use with neutrals?⁵²⁵

If an Internet message or "hack" contributes to an enemy war-fighting or war-sustaining effort, assists an enemy's armed forces intelligence system, or acts as an auxiliary military or naval channel of communication or information, is not the attack and destruction option available, subject to necessity and proportionality principles?⁵²⁶ To be sure, special principles might be devised analogous to the passenger and crew safety rule when a merchantman must be destroyed.⁵²⁷ For example, if messages relating to safety of civilians are involved, can they be electronically isolated and allowed through?

Might an electronic "firewall" analogous to blockade principles in the law of naval warfare⁵²⁸ be devised to let appropriate messages get through? The Internet might be used for traditional blockades and other interdictions, besides Notices to Airmen (NOTAMs) and Notices to Mariners (NOTMARs) published by radio, for example.

523. For example, hospital ships and medical aircraft. See *supra* note 379-87 and accompanying text.

524. Cf. Robertson, *Modern Technology*, *supra* note 362, Robertson, *New Technologies*, *supra* note 362. See also *supra* notes 358-65, 379-87, 492, 523 and accompanying text.

525. See *supra* note 366 and accompanying text.

526. See *supra* notes 352, 374-75, 441 and accompanying text.

527. See *supra* note 376 and accompanying text.

528. See *supra* notes 367-68 and accompanying text.

Is it useful to think in terms of specific exemptions for neutral Internet usage? Hague XI lists enemy vessels exempt from capture and possible destruction because of their nature, among them a debatable exemption for mails as distinguished from mail ships.⁵²⁹ Is it helpful to develop exempted computer systems, exempted kinds of messages, or Internet systems exempt from "capture" and possible destruction unless aiding an enemy? What about generally exempt ships, such as hospital ships not aiding an enemy, that send Internet-based messages that might be construed by a belligerent to be encrypted messages? Would this raise suspicions, however unfounded, such that neutral exempt vessel use of Internet-based messages should be banned or restricted? Can system segregation be done with today's technology?⁵³⁰ Is it too early for this? Can the Internet itself be used to advise of exemptions, if a case by case basis is appropriate?

Might military commanders consider declaring control of immediate areas of military operations on the Internet, analogous to the immediate area of naval operations?⁵³¹ To be sure, this kind of declaration may invite more trouble than it is worth—it could tell adversaries where to go. The Internet can, of course, be used to send these notices, besides NOTAMs and NOTMARs sent by more traditional means for addressees lacking Internet capability, or to assure transmission and receipt where it is possible an Internet-based message does not go through.

Although it is not part of the law of neutrality, any country can declare temporary use of the high seas for naval maneuvers, including air operations.⁵³² These can be conducted during armed conflict. Is there a correlative right to declare temporary use of part of the Internet for "IW maneuvers"? Might notice of IW maneuvers be posted on the Internet besides more traditional means, such as, NOTAMs or NOTMARs? Like warning of immediate area of naval operations during war, such a notice, whether by NOTAM or NOTMAR through traditional media or the Internet, invites attention.

Could or should an "Internet war zone" be declared,⁵³³ warning neutrals of higher risk if they "surf" in the area or otherwise use the "zone"? Like notices for immediate areas of naval operations, these warnings could be posted on the Internet and by more traditional means, such as NOTAMs and NOTMARs.

529. See *supra* notes 379-87 and accompanying text.

530. If this can be done today for GPS, might it also be accomplished for these situations? See *supra* note 69 and accompanying text.

531. See *supra* notes 369, 409 and accompanying text.

532. See *supra* notes 311-15 and accompanying text.

533. See *supra* note 374 and accompanying text.

Notices of blockade, immediate area of naval operations, or war zones, must be effective.⁵³⁴ While the Internet is a valuable communication medium, it cannot replace more traditional and widely available methods until it is as universal as more traditional means. This may be a problem for vessels or aircraft registered in countries that are not as advanced in Internet technology as the United States, for example.⁵³⁵

Could states declare temporary "defense zones" for parts of the Internet spectrum, analogous to a high seas defense zone or cordon sanitaire for an area of naval and air operations, to warn other countries of risks of self-defense responses? This is not a feature of naval warfare but an incident of self-defense.⁵³⁶ If they proclaim such a zone, must they allow Internet access, on analogy of mine warfare law, which allows countries to lay mines off their coasts, if location of them is noticed and the sole purpose is not to stop neutral shipping?⁵³⁷ And because the technology is still emerging, and a treaty now might be premature,⁵³⁸ could agreements involving incidents on and over the high seas (INCSEA agreements)⁵³⁹ be models to minimize confrontation down the road when and if the problem settles down? Longstanding treaties promoting safety at sea offer another model.⁵⁴⁰

Might states proclaim an "Internet Identification Zone" (IIZ) for parts of the Internet spectrum, analogous to an ADIZ over

534. See *supra* notes 368-70 and accompanying text.

535. See, e.g., *supra* note 69 and accompanying text.

536. See *supra* notes 316-22 and accompanying text.

537. See *supra* notes 353-57 and accompanying text.

538. See *supra* notes 358-65, 379-87, 523-24 and accompanying text.

539. E.g., Agreement on Prevention of Incidents on and Over the High Seas, May 25, 1972, U.S.S.R.-U.S., 23 U.S.T. 1168, 852 U.N.T.S. 151 [hereinafter INCSEA]; Protocol to Agreement on Prevention of Incidents on and Over the High Seas, May 22, 1973, U.S.S.R.-U.S., 24 U.S.T. 1063, 12 I.L.M. 1108 (1973). See also Agreement on Prevention of Dangerous Military Activities, June 12, 1989, U.S.S.R.-U.S., 28 I.L.M. 879 (1989). Other states had INCSEA treaties with the former USSR. NWP 1-14M ANNOTATED, *supra* note 37, para. 2.8 n.110. Today these may be subject to treaty succession principles. See generally Symposium, *supra* note 216; Walker, *supra* note 216. See also 1 BROWN, *supra* note 231, at 285; NWP 1-14M ANNOTATED, *supra* note 37, para. 2.8; Marion Nash Leich, *Contemporary Practice of the United States Relating to International Law: Prevention of Dangerous Military Activities*, 83 AM. J. INT'L L. 917 (1989); Timothy J. Nagle, Note, *The Dangerous Military Activities Agreement: Minimum Order and Superpower Relations on the World's Oceans*, 31 VA. J. INT'L L. 125 (1990).

540. E.g., Convention on International Regulations for Preventing Collisions at Sea, Oct. 20, 1972, 28 U.S.T. 3459; International Convention for the Safety of Life at Sea, Nov. 1, 1974, 32 U.S.T. 47 (in force for most states but with many amendments). See generally U.S. DEPT OF STATE, *supra* note 124, at 413-15. Precisely as law involving the Internet is proceeding on a national basis, the first collision and safety rules have appeared in major seafaring nations' legislation. See generally COLOMBOS, *supra* note 44, at 363-67, 387-391; 2 O'CONNELL, *supra* note 44, at 770-73, 831-34, 882-85; SCHOENBAUM, *supra* note 391, § 12-2, at 716.

high seas areas and anchored to the territorial sea?⁵⁴¹ The IIZ would be a warning, perhaps published on the Internet and in other sources to assure notice, of a possibility of interception if Internet users approach too close to a neutral's vital interests (analogous to its territory, including the territorial sea, the anchor for an ADIZ), including defense and central economic communications systems, for example. The ADIZ is not an air warfare feature; it serves as an identification method. An IIZ might have a similar function.

The Internet is like a merchant shipping system or the U.S. public highway system. There is no regulation like systems for radio and television broadcasting. It is up to the individual or government as to the nature of vehicles used (the computers) and, beyond a small access charge paid to Internet access providers, the user is largely on its own as to content and destination. Therefore, although there may be belligerent and neutral rights, perhaps by analogy to those for the naval warfare, there are relatively few positive duties, apart from a requirement to respect belligerents' and neutrals' rights however those may be stated.

As a final point, the due regard principle, derived from the LOS and the law of naval warfare,⁵⁴² might be part of the analysis; belligerents must pay due regard to rights of Internet users that are neutral, even as Internet users must have due regard for others on the Net in the absence of war. Even as belligerents must have due regard for the maritime environment in today's wars at sea, might they be required to pay due regard to the general Internet environment?

D. *Neutrality, Aerial Warfare, and Information Warfare*

As in the cases of land and sea warfare, Charter principles may apply in given situations.⁵⁴³ Treaty suspension or termination principles may apply.⁵⁴⁴ Besides air warfare rules, belligerents must observe LOAC principles of military objective, necessity, and proportionality, which apply to all modes of war.⁵⁴⁵

Like neutrality law for land and sea warfare, air warfare rules require respect for neutral airspace, which includes airspace over neutrals' territorial seas; belligerent military aircraft cannot enter

541. See *supra* notes 325-32 and accompanying text.

542. See *supra* notes 306-09 and accompanying text.

543. U.N. CHARTER art. 103. See also *supra* notes 124, 166 and accompanying text.

544. See *supra* notes 223-36 and accompanying text.

545. What is necessary or proportional under the LOAC may not be necessary or proportional in self-defense situations or vice versa. See *supra* notes 352, 441.

it.⁵⁴⁶ When coupled with identical treaty-based neutrality rules applying to land and sea war, this principle is strengthened.⁵⁴⁷ The Hague Air Rules principle, the same as those for land warfare but differing from naval warfare requirements for neutrals, is that actions neutrals take to enforce neutral rights cannot be construed as hostile acts.⁵⁴⁸ Because two branches of the law of neutrality protect a neutral in its actions to enforce neutrality, because Internet activity necessarily ultimately involves land in terms of sending and reception of messages, and because Internet messages' "flight" through lines might be analogized to aircraft flight, should not the rule be that a neutral's Internet actions should not be deemed hostile acts, and not unfriendly ones, as the law of naval warfare has it? A neutral might enforce its rights by an unfriendly act, such as a retorsion,⁵⁴⁹ a lesser action that does not involve proportional reprisals, such as unlawful acts designed to compel compliance.⁵⁵⁰

There is an important difference between neutrals' duties with respect to movement of belligerent troops across neutral land territory, movement of belligerent naval forces into neutral ports and waters, and movement of belligerent military aircraft into neutral airspace. The duty to repel troop movements is absolute, while the duty to detect and oust belligerent naval or air forces is subject to a neutral's having means to do so.⁵⁵¹ When the Hague Conventions were signed, many countries may not have had navies, military forces, or detection capability sufficient to oust a belligerent naval force. The same assumption may underlie the 1923 Hague Air Rules regarding intruding belligerent military aircraft and their internment. There must have been a presumption that any state could use its military or other forces, perhaps police, to repel belligerent troop movements, but that might not be the case for every country for naval or military aircraft incursions. The same is true today. For IW neutrality rules, it could be argued that a neutral's duty to act to prevent belligerent IW from within its territory is not absolute, but

546. See *supra* note 261 and accompanying text.

547. I.C.J. STATUTE art. 38(1); Vienna Convention, *supra* note 44, pmb., art. 38, 1155 U.N.T.S. at 333, 341. See also *supra* note 513 and accompanying text.

548. Self-defense and state of necessity claims by belligerents and neutrals may be implicated as well. See *supra* notes 266, 269 and accompanying text.

549. See *supra* note 176 and accompanying text.

550. Today most commentators suggest that states cannot invoke reprisals involving the use of force except when there is a violation of international law, while a state is a belligerent and that state wishes to respond with proportional reprisals against an enemy in armed conflict situations after having asked the offender to comply with the law. Even in such cases, however, there are limits. Responses cannot include breaches of humanitarian law. See *supra* note 175 and accompanying text.

551. See *supra* notes 264-65, 274, 337-38, 514-15 and accompanying text.

conditional on a neutral's ability to detect IW activity and to act to counter it. Not every nation has computer and related systems as sophisticated as, *e.g.*, the United States,⁵⁵² and these countries should not be held to an absolute duty. Such being the case, computer-sophisticated nations like the United States must be held to the same duty, *i.e.*, use of means at the disposal of the United States, which might be quite considerable.

A neutral's duty to prescribe a route away from belligerents' military operations for aircraft ordered by a belligerent⁵⁵³ might be seen, by analogous precedent for IW, to say a neutral must prescribe Internet "routes" not to interfere with military operations. The Hague Air Rules' qualifying phrase, that a neutral must exact guarantees, indicates a possible weakness of the prescription, however. For IW, if a neutral prescribes a "route," can the neutral enforce the prescription, given the Internet's decentralized nature? The Hague Air Rules principle that neutrals must, commensurate with means at disposal, prevent aerial observation of belligerent operations,⁵⁵⁴ is in the same vein. Should neutrality law for IW require neutrals, commensurate with means at disposal, to prevent IW observation, through reading Internet traffic, of belligerent military operations? Many of these will undoubtedly be encrypted.⁵⁵⁵ In both cases the emerging principle should be that a neutral must employ means at its disposal; for encrypted traffic, this may mean that a neutral can do little or nothing. Hacking into an encrypted system may promote belligerents' self-defense claims.⁵⁵⁶

The Hague Air Rules, like those for naval warfare, allow a belligerent's force commander to prohibit neutral aircraft from passing in an immediate vicinity of a commander's forces, or to make aircraft follow a particular route, if the commander considers the aircraft is likely to prejudice success of military operations. If an aircraft, once notified, refuses to comply, a belligerent may fire on it.⁵⁵⁷ In the IW context, might belligerents assert a similar right to prohibit Internet activity in an immediate electronic or physical vicinity of military operations, or direct that Internet traffic follow routes? Can the belligerent "shoot down" noncomplying Internet traffic that comes close to military Internet operations, following notice and using proportional means? Might notice of these areas of operations be posted on the

552. *See, e.g., supra* notes 49, 516 and accompanying text.

553. *See supra* notes 400-01 and accompanying text.

554. *See supra* note 402 and accompanying text.

555. *See supra* notes 57, 69, 72 and accompanying text.

556. U.N. CHARTER arts. 51, 103. *See also supra* notes 124, 166, 168-74, 279 and accompanying text.

557. *See supra* notes 409-10 and accompanying text.

Internet besides more traditional means? A correlative problem is that any radio or Internet message invites attention to location of belligerent forces.

Although it is not part of the law of neutrality, any country can declare temporary use of the high seas for naval maneuvers, including air operations.⁵⁵⁸ These maneuvers can be conducted during armed conflict. Is there a correlative right of declaring temporary use of part of the Internet for "IW maneuvers"? Might notice of these "maneuvers" be posted on the Internet? Like the warning of the immediate area of naval operations during war, such a notice, whether by NOTAM or NOTMAR through traditional media or the Internet, invites attention.

War zones for neutral aircraft and ships, reasonable in scope and duration and which are properly noticed, are a valid method of warfare at sea today. They are not free-fire areas but are designed to warn neutral aircraft or other platforms of heightened danger if they enter a zone.⁵⁵⁹ Might an "IW war zone" with similar qualifications be declared to warn Internet users of a heightened risk of being "fired on" if they venture into certain Internet "areas"? Might notice of these zones by NOTAMs and NOTMARs be posted on the Internet besides traditional means?

Could states declare temporary "defense zones" for certain parts of the Internet spectrum, analogous to a high seas defense zone or cordon sanitaire that may be announced for an area of air operations, to warn other countries of a risk of self-defense responses? This is not a feature of air warfare but an incident of self-defense. Here, too, INCSEA and safety of life at sea treaties could be models for advance agreements for these situations.⁵⁶⁰

Might states proclaim an "Internet Identification Zone" (IIZ) for parts of the Internet spectrum, analogous to an ADIZ?⁵⁶¹ The IIZ would be a warning, perhaps published on the Internet and in other sources to assure notice, of a possibility of interception if Internet users approach too close to a neutral state's vital interests (analogous to its territory including its territorial sea, an ADIZ's anchor), including, *e.g.*, its defense and central economic or communications systems. The ADIZ is not a feature of air warfare, serving as an identification method. The IIZ might have a similar function.

Thus preexisting norms for air warfare, like those for naval warfare, offer many options for analogous treatment of IW issues.

558. See *supra* notes 412-15 and accompanying text.

559. See *supra* notes 368-72, 374, 533-34 and accompanying text.

560. See *supra* notes 316-22, 353-65, 379-87, 536-40 and accompanying text.

561. See *supra* notes 325-32, 541 and accompanying text.

E. *Neutrality and Information Warfare in Space*

There is little new "hard law" in norms applicable to conflict in outer space,⁵⁶² other than applying Charter law;⁵⁶³ the law for suspending or terminating treaties;⁵⁶⁴ and general principles of military objective, necessity, and proportionality, and perhaps due regard in some cases.⁵⁶⁵ There is no special neutrality law like that applying to land, sea, or air warfare. Any neutrality law applying to IW in space must be derived by analogy from other sources, as before agreements like the Outer Space Treaty, the Liability Convention, and the Registration Convention were negotiated.⁵⁶⁶

It is this general methodology that may be the most useful. If law for outer space could be derived by analogy from other systems before formal treaties appeared, cannot the same be said for IW? Which legal system(s) should supply the model(s)? The LOS, the law of naval warfare, and the law of aerial warfare seem to suggest many norms that might be cited by analogy, as Parts IV.C and IV.D suggest.

F. *Conclusions on Applying Traditional Principles to IW*

The author does not have technical competence to respond to the questions posed in Parts IV.A-IV.E, but they should be addressed. Some inquiries may be far-fetched, impractical, or shrouded for national security reasons, but given the exponential growth of technology, this Article has asked them.

As the manned space flight era became a reality, commentators recommended applying other, well-established law to space age situations by analogy. U.N. Charter law applies to situations in space, as it does for interactions on land, at sea and in the air. Today treaties, and practice pursuant to them, govern many other aspects of space interactions, but not all of them. These agreements are subject to Charter law primacy and to law of treaties rules for suspension or termination. Beyond the treaties, some space law issues remain unresolved, and applying other systems of law by analogy seems to be the norm.

Internet warfare issues involving neutrals, and the law to be applied to them, seem close to the situation for warfare in space. Charter-based norms must be applied, such as the prohibition

562. See *supra* notes 397-400 and accompanying text.

563. U.N. CHARTER art. 103. See also *supra* notes 124, 166, 432, 506, 543 and accompanying text.

564. See *supra* notes 223-36, 491, 509, 544 and accompanying text.

565. See *supra* notes 306-09, 328, 352 and accompanying text.

566. See *supra* notes 424-30 and accompanying text.

against violating states' territorial integrity or political independence, the right of self-defense, and the primacy of Security Council decisions. There are telecommunications treaties to which Charter norms and law of treaties rules for suspension and termination are subject. Some LOAC principles, such as those related to telegraphy, will apply to Internet messages and more conventional communications, although these are also subject to Charter norms, including self-defense. Beyond these relatively well-established norms, there are many principles—primarily in the law of naval warfare but also some from the law of land and air warfare—that may be cited by analogy in IW situations involving neutrals.

V. APPRAISAL OF NEUTRALITY IN THE CHARTER ERA IN THE INFORMATION WARFARE CONTEXT

Twenty years ago, Toffler wrote that “[a]n information bomb is exploding in our midst, showering us with a shrapnel of images and drastically changing the way each of us perceives and acts upon our private lives.”⁵⁶⁷ More recently, the Tofflers stated:

By definition, both force and wealth are the property of the strong and the rich. It is the truly revolutionary characteristic of knowledge that it can be grasped by the weak and poor as well. Knowledge is the most democratic source of power.

It may also be the most dangerous. Like the six-shooter in the wild West, it could prove to be the Great Equalizer.⁵⁶⁸

Whether we are at High Noon,⁵⁶⁹ or close to it, in IW is less than clear, but it is certain that Internet use and misuse have been factors in recent conflicts, in national arenas, and within organizations, including the military.⁵⁷⁰

The methodology of warfare may change during the Information Age that appears to be upon us. Responses to Internet-based attack may involve more than applying new strategies and tactics to threats and attacks⁵⁷¹ and a beginning of major reductions in defense systems and infrastructure,⁵⁷² a new

567. TOFFLER, *THE THIRD WAVE*, *supra* note 2, at 172.

568. TOFFLER & TOFFLER, *supra* note 12, at 189 (quoting TOFFLER, *POWERSHIFT*, *supra* note 2, at 20). *See also supra* notes 31-34 and accompanying text.

569. *See supra* note 34 and accompanying text.

570. *See supra* notes 1-38, 69-106 and accompanying text.

571. John Arquilla & David Ronfeldt, *Looking Ahead: Preparing for Information-age Conflict*, in *IN ATHENA'S CAMP: PREPARING FOR CONFLICT IN THE INFORMATION AGE*, *supra* note 2, at 493, 465-77 (calling for doctrinal changes to meet the swarming threat). *See also supra* notes 69-79 and accompanying text.

572. Gompert, *supra* note 6, at 29.

way of organization within armed forces may occur.⁵⁷³ The same may occur in diplomatic circles, a "revolution in diplomatic affairs."⁵⁷⁴ The result may be far less bloodletting in human casualties, although the result of an Information War may be just as catastrophic for the losers.⁵⁷⁵

Whether an "information dividend" will prevent outbreak of war, as some predict,⁵⁷⁶ is less than clear. The Congress of Vienna (1815),⁵⁷⁷ the Hague ultimatum system (1907),⁵⁷⁸ the League of Nations (1919),⁵⁷⁹ the Pact of Paris (1928),⁵⁸⁰ and the U.N. system all failed to end war.⁵⁸¹ Even with the Cold War's end, which could usher in an era of managed peace,⁵⁸² the U.N.

573. Cf. John Arquilla & David Ronfeldt, *Information, Power, and Grand Strategy: In Athena's Camp—Section 2*, in *IN ATHENA'S CAMP: PREPARING FOR CONFLICT IN THE INFORMATION AGE*, *supra* note 2, at 417, 421-27, 429-31 (suggesting the ending of openness in military affairs and forward basing strategy in the Information Age); Arquilla & Ronfeldt, *supra* note 571, at 461-65 (suggesting that a military organization like the World War II German submarine wolfpacks may be appropriate); Gompert, *supra* note 6, at 28 (advocating openness). See also *supra* notes 94-106 and accompanying text.

574. Arquilla & Ronfeldt, *supra* note 571, at 489. See also *supra* note 107 and accompanying text.

575. Cf. Arquilla & Ronfeldt, *supra* note 571, at 492-93. See also *supra* notes 104-05 and accompanying text.

576. Arquilla & Ronfeldt, *supra* note 571, at 493. See also *supra* notes 104-05 and accompanying text.

577. Act of Congress of Vienna, *supra* note 244, 64 Consol. T.S. at 453, whose linchpin was Treaty of Alliance, Mar. 15, 1815, 64 Consol. T.S. 27, was succeeded by Treaty of Alliance and Friendship, Nov. 20, 1815, 65 Consol. T.S. 296. See also *supra* note 244 and accompanying text.

578. Convention Relative to the Opening of Hostilities, *supra* note 479, arts. 1, 3, 36 Stat. at 2271. See also *supra* note 479 and accompanying text.

579. Covenant of the League of Nations, Treaty of Versailles, June 20, 1919, Part I, 225 Consol. T.S. 189, 195-205 (ending World War I for Germany). The Covenant was also part of other agreements ending the war, for example: Treaty of Neilly-sur-Seine, Nov. 27, 1919, Part I, 226 Consol. T.S. 332, 335 (Bulgaria); Treaty of St. Germain-en-Laye, Sept. 10, 1919, Part I, 226 Consol. T.S. 13 (Austria); Treaty of Trianon, June 4, 1920, Part I, 113 Brit. Foreign & St. Papers 486, 491-501 (Hungary). Although a signatory to these, the United States never ratified them, primarily because of U.S. Senate opposition to the Covenant. Michael J. Glennon, *The Constitution and Chapter VII of the United Nations Charter*, 85 AM. J. INT'L L. 74, 75-76 (1991). The United States concluded bilateral agreements with Austria, Germany, and Hungary, incorporating parts of the multilateral treaties but excluding the Covenant. Treaty of Peace, Aug. 29, 1921, Hung.-U.S., art. 2, 42 Stat. 1951, 1953; Treaty of Peace, Aug. 25, 1921, Germ.-U.S., art. 2, 42 Stat. 1939, 1943; Treaty of Peace, Aug. 24, 1921, Aus.-U.S., art. 2, 42 Stat. 1946, 1948.

580. Pact of Paris, *supra* note 118, 46 Stat. at 2343, 94 L.N.T.S. at 57. See also *supra* note 118 and accompanying text.

581. The U.N. Charter specifically states: "WE THE PEOPLES OF THE UNITED NATIONS DETERMINED to save succeeding generations from the scourge of war, which twice in our lifetime has brought untold sorrow to mankind" U.N. CHARTER pmbl., para. 1. See also *supra* note 116 and accompanying text.

582. EUGENE V. ROSTOW, TOWARD MANAGED PEACE 337-84 (1993).

system may be a doubtful vehicle for achieving consensus on IW-related issues.⁵⁸³

Modified and improved by custom and treaties, the *jus ad bellum*, the *jus in bello*, and the law of neutrality remain as factors states must consider in the Information Age. Undeniably, neutrality as a general concept has as much vitality today as in the pre-Charter era. The claim that there is a customary right to assert an intermediate status of nonbelligerency between traditional neutrality and belligerency may have been strengthened since 1945, although most states and commentators do not recognize it. The precedents sometimes are almost identical with those in the last two centuries. Even if nonbelligerency cannot be asserted as a customary norm, the overlay of principles of self-defense, retorsion, reprisals not involving use of force, and state of necessity apply to support actions at variance with a practice of strict neutrality in the traditional sense.⁵⁸⁴ Because of options under the Charter for nonbinding resolutions by the Security Council, and perforce the General Assembly, the potential for exceptions even with a binding Council decision, and relative scarcity of Council decisions,⁵⁸⁵ opportunity for claims of neutrality—perhaps modified by a new nonbelligerency concept in the Charter era—remains large. “Far from being moribund, these traditional rights [of neutrality and self-defense] apply logically in conditions of limited wars”—the type of conflicts that have beset the planet since 1945—“even more rigorously than in conditions of total war.”⁵⁸⁶

The advent of information war may call for modifying Jessup’s theory, published in 1936 when the world was recovering from a world war and preparing for the next one.⁵⁸⁷ Transoceanic communication was dependent on undersea cables for urgent messages, although radio signals could also reach across the seas. The most advanced countries had cross-border telephone and telegraph access by land lines. Most transoceanic communications went by ship, although the first international air mail deliveries were beginning for transoceanic and

583. GREENBERG ET AL., *supra* note 1, at 96-97.

584. See *supra* notes 108-84 and accompanying text.

585. See *supra* notes 187-218 and accompanying text.

586. 2 O’CONNELL, *supra* note 44, at 1142. Some limited or localized conflicts may have been total war from the belligerents’ perspectives, but on a world-scale basis they were local or limited in nature. A recent example is the 1980-88 Iran-Iraq conflict, the maritime aspects of which Walker examines. WALKER, *THE TANKER WAR*, *supra* note 108, Part II.

587. JESSUP, *supra* note 109, at 156 (“There is nothing new about revising neutrality; it has undergone an almost constant process of revision in detail.”). See also *supra* notes 111-14 and accompanying text.

transcontinental communications. The usual means of communication then for most messages, however, was what we call "snail mail" today. The Internet was a Cold War creation.⁵⁸⁸ Today Jessup might say that although the neutrality basic rules remain in place, and they apply for IW, their application for IW must be by analogy.

One option is a non-law analysis,⁵⁸⁹ although that alternative is less than appropriate or fashionable today given a tendency to find some law (perhaps publicists' views if there is no customary law, treaty, or general principle available).⁵⁹⁰ Commentators correctly assert that it is almost universally accepted that a considerable body of law applies to states' use of force in cyberspace contexts.⁵⁹¹ If that is true, a corollary is that the considerable body of traditional neutrality law also exists—some of it restated in treaties of longstanding duration that are now almost universally recognized as declaring custom, and the rest in customary norms or general principles. If we choose to operate in the context of law, under a rule of law, the law of neutrality developed for more traditional warfare modalities offers useful analysis by analogy where there are no positive standards, such as rules governing cables.⁵⁹²

Today, exceptions to the traditional law include Charter law, as well as the inherent right to individual and collective self-defense, which predates the Charter. Other exceptions include prohibitions against violating a state's territorial integrity, and the primacy of U.N. Security Council decisions.⁵⁹³ Another might be human rights, although human rights treaties' derogation clauses reflect traditional rules of suspension or termination during international armed conflict.⁵⁹⁴ The policies of peacetime telecommunications treaties, although perhaps limited in application during armed conflict because of their terms or

588. See *supra* notes 45-52 and accompanying text.

589. Sharp states: "When the legal community first considered the . . . regime that governed state activities and military operations in Cyber Space, some U.S. government attorneys stated rather boldly that [applying] . . . modern information systems technology to military purposes was so new that no law applied." SHARP, *supra* note 1, at 5. A policy behind this approach is national sovereignty. See U.N. CHARTER art. 2, para. 1, art. 103; S.S. *Lotus* (Fr. v. Turk.), 1927 P.C.I.J. (ser. A) No. 10, at 18 (Sept. 7). See also *supra* note 199 and accompanying text.

590. Cf. I.C.J. STATUTE art. 38, para. 1; RESTATEMENT (THIRD) OF FOREIGN RELATIONS §§ 102-03. See also *supra* note 237 and accompanying text.

591. See generally GREENBERG ET AL., *supra* note 1, at 17; OFFICE OF GENERAL COUNSEL, *supra* note 233; SHARP, *supra* note 1, at 5; Aldrich, *supra* note 1; Schmitt, Bellum, *supra* note 36; Schmitt, *supra* note 12; Scott, *supra* note 41.

592. See *supra* notes 347-52 and accompanying text.

593. U.N. CHARTER arts. 2(4), 25, 48, 51, 103. See also *supra* notes 116, 124, 166, 168-74, 180 and accompanying text.

594. See *supra* note 232 and accompanying text.

because of general rules of treaty suspension or termination, are another. Human rights treaties may also be so limited.⁵⁹⁵

Analysis of IW issues in a context of the law of neutrality as it applies to land, sea, and air warfare reveals common denominators and differences. For example, belligerents have a duty not to cross neutrals' land territory by land or air, or to use it or neutral seas—the territorial sea—for a base of operations.⁵⁹⁶ A neutral's duty to repel these incursions varies with the modality of incursion. If it is by land, there is apparently an absolute duty at least to try. If the incursion is by belligerent air or naval forces, the neutral's duty is relative. It must use means at its disposal to counter an incursion, including means at its disposal to intern an intruding aircraft and those aboard. A neutral may elect to detain a belligerent warship that has remained in port when it is not entitled to stay there. Undoubtedly the 1907 Hague drafters and the 1923 Commission of Jurists that prepared the Hague Air Rules believed every country had some semblance of ground forces to repel a belligerent's troop movements across neutral lands, but that not every state had the means of detecting or repelling incursions by air or sea, or of interning belligerent military vessels or aircraft.⁵⁹⁷ The "means at a neutral's disposal" principle should be the test for a neutral's duty for belligerents' IW incursions; the neutral should be held to apply means at its disposal to detect and repel these incursions.

Such being the case, the correlative right of a belligerent aggrieved by IW incursions should be that the belligerent may take such actions as are necessary in the territory of a neutral that is unable (or perhaps unwilling) to counter enemy IW force activities making unlawful use of that territory, a principle from the law of naval warfare.⁵⁹⁸

Beyond these general rules applying to neutrality in a context of all warfare modes, the rules begin to diverge among the different kinds of armed conflict, the closest kinship being seen between the law of naval warfare and aerial warfare, particularly naval warfare. From a geographic perspective, these mediums for combat offer more persuasive reasons for analogy to IW. Both are concerned with "fluid" mediums, like the Internet's electronic pathways.⁵⁹⁹ The law of naval warfare is concerned with warfare

595. The telecommunications treaties might be applied through the analogy of the due regard principle, primarily taken from the LOS. See *supra* notes 223-28, 232, 233, 306-09, 328 and accompanying text.

596. See *supra* notes 261, 273, 281, 334-35, 395-97 and accompanying text.

597. See *supra* notes 264, 281, 337-38, 398-99 and accompanying text.

598. See *supra* note 342 and accompanying text.

599. Outer space also has this characteristic, but beyond the Charter and general principles applicable to any situation, there is little law from which

on the high seas, a part of the globe that is no nation's property. It also is concerned with ocean areas over which coastal states may exercise sovereignty, such as the territorial sea, or jurisdiction, such as the EEZ. There is also a relatively well-developed set of rules or general principles in the LOS, the law of naval warfare, and the law of air warfare, upon which analogies for IW may be drawn.⁶⁰⁰ Closer examination of the law of naval warfare and the law of air warfare in connection with Charter law, the LOS, and treaty termination or suspension principles may produce analogies suitable for developing IW principles.

The LOAC is replete with notice requirements.⁶⁰¹ The new technology might be employed to give notice, adequate under the circumstances, in traditional warfare situations besides the usual means of doing so.

Given IW technology's fluidity and exponential growth, the relative lack (thus far) of practice in IW situations, and the relatively small number (again thus far) of claims and counterclaims⁶⁰² in the worldwide electronic arena, any international agreements on IW would likely be obsolete in terms of hardware and practice before their ink would be dry.⁶⁰³ Haphazard as the prospect may be, rules for IW should be left to developing customary norms and general principles, derived by analogy from other well-developed bodies of war like the LOS, the law of naval warfare, and the law of aerial warfare, perhaps with

analogies for neutrality law in the IW context might be drawn from space law. In that regard the law of outer space has been in a state of development since the conclusion of several widely-accepted international agreements. The development of space law is ahead of, but similar to, the present circumstances surrounding the development of international law to govern the Internet and information warfare. See *supra* notes 417-31 and accompanying text.

600. See *supra* notes 293-416 and accompanying text.

601. See *supra* notes 311, 325-32, 345, 354, 358-65, 367, 369-72, 400, 407-12, 416 and accompanying text.

602. Myres S. McDougal, *The Hydrogen Bomb Tests and the International Law of the Sea*, 49 AM. J. INT'L L. 356, 356-58 (1955).

603. See *supra* notes 362, 366 and accompanying text. The law for dropping projectiles from balloons comes to mind. Declaration Prohibiting Discharge of Projectiles and Explosives from Balloons, Oct. 17, 1907, 36 Stat. 2439. The Declaration is still in force for twenty-eight countries, including the United States, and perhaps more if treaty succession principles are taken into account. See U.S. DEPT OF STATE, *supra* note 124, at 450; Symposium, *supra* note 216; Walker, *supra* note 216. Roach suggests that a general conference for a treaty on the law of naval warfare might result in landlocked states and states without significant naval forces settling matters of importance to naval powers without the latter's consent. Roach, *supra* note 309, at 76-77. The same might be true for any IW treaty conference. Greenberg *et al.* dismiss the arms control treaty approach as premature. GREENBERG ET AL., *supra* note 1, at 100-02.

help from commentators,⁶⁰⁴ before serious consideration of a treaty begins.

The biggest risk may be "The Lure of Inactivity."⁶⁰⁵ A problem of employing general principles, perhaps by analogy, and commentators in place of treaties, is that this invites controversy after the issue is upon states in a crisis situation, for example. Countries like the United States have wisely declared in ROE the general principles under which they will act in hostile intent and hostile act situations.⁶⁰⁶ The next steps might be specific policy pronouncements on perceived IW situations in peacetime self-defense or LOAC situations. There remains, however, one "indispensable role" for the U.S. and other governments:

If and as the IW threat becomes real, the United States should declare that an IW attack on the nation or its interests will be treated as a hostile act, that the attacker should be prepared for a response involving whatever means the United States might select. By no means should the United States adopt a tit-for-tat (IW-for-IW) strategy, since an attacker is likely to be far less dependent on information infrastructure and therefore could be unimpressed by an IW retaliatory threat.⁶⁰⁷

If a state adheres to the view that anticipatory self-defense responses are appropriate, such a declaration might add that an IW threat to the nation or its vital interests will be treated as hostile intent, for which the consequences stated above would also apply. There is nothing in the international law of self-defense to bar such responses. There is nothing in the international law of reprisals to bar proportionate non-force responses, and nothing in the international law of retorsions to bar unfriendly but lawful responses, or application of state of necessity in appropriate situations, whether information-oriented or not.⁶⁰⁸

604. I.C.J. STATUTE art. 38, para. 1, art. 59; RESTATEMENT (THIRD) OF FOREIGN RELATIONS §§ 102-03. *See also supra* notes 237-38 and accompanying text.

605. GREENBERG ET AL., *supra* note 1, at 102.

606. *See supra* notes 462-67 and accompanying text.

607. Gompert, *supra* note 6, at 39.

608. *See* U.N. CHARTER arts. 51, 103; *supra* notes 125, 166, 168-81 and accompanying text.

Besides self-defense and LOAC-related ROE, consideration might be given to revising military manuals to spell out policy and projected practice in IW contexts, whether a state is a belligerent or a neutral.⁶⁰⁹

609. *E.g.*, NWP 1-14M ANNOTATED, *supra* note 37 (discussing U.N. Charter law, the law of the sea, the law of armed conflict, and the law of neutrality, particularly in the naval warfare context but saying little about IW issues, which were just emerging as points of discussion among commentators and government preliminary assessments in 1997 when the *Annotated Supplement* was published). *See generally* GREENBERG ET AL., *supra* note 1; OFFICE OF GENERAL COUNSEL, *supra* note 233; SHARP, *supra* note 1; Aldrich, *supra* note 1; Schmitt, *Bellum*, *supra* note 36; Schmitt, *supra* note 12; Scott, *supra* note 41. Undoubtedly the recent *International Law Studies* volume, *supra* note 37, will provide input for future manuals.