THE OBAMA ADMINISTRATION AND TARGETING "WAR-SUSTAINING" OBJECTS IN NONINTERNATIONAL ARMED CONFLICT

*By Ryan Goodman**

Since September 11, 2001, legal experts have focused significant attention on the lethal targeting of individuals by both the George W. Bush and Obama administrations. An equally significant legacy of the post-9/11 administrations, however, may be the decisions to target specific kinds of objects. Those decisions greatly affect the success of U.S. efforts to win ongoing conflicts, such as the conflict with the Islamic State of Iraq and the Levant (ISIL). These decisions may also become precedents for military attacks that states consider lawful, whether carried out by cyber or kinetic means, in future armed conflicts.

To achieve the goal of destroying ISIL, President Obama embraced what many in the international law community long regarded as off-limits: targeting war-sustaining capabilities, such as the economic infrastructure used to generate revenue for an enemy's armed forces.[1] Although the weight of scholarly opinion has for years maintained that such objects are not legitimate military targets,[2] the existing literature on this topic is highly deficient. Academic discussion has yet to grapple with some of the strongest and clearest evidence in support of the U.S. view on the legality of such targeting decisions. Indeed, intellectual resources may be better spent not on the question of whether such objects are legitimate military targets under the law of armed conflict, but on second-order questions, such as how to apply proportionality analysis and how to identify limiting principles to guard against unintentional slippery slopes. In this article, I discuss the legal pedigree for war-sustaining targeting. I then turn to identify some of the most significant second-order questions and how we might begin to address them.

I. SCOPE OF THE LEGAL CONTROVERSY ON TARGETING WAR-SUSTAINING OBJECTS

Article 52 of Additional Protocol I to the Geneva Conventions defines the class of objects that can be lawfully targeted in international armed conflict. Article 52(2) states:

> Attacks shall be limited strictly to military objectives. In so far as objects are concerned, military objectives are limited to those objects which by their nature, location, purpose or use make an *effective contribution to military action* and whose total or partial destruction,

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[1] White House Press Release, Remarks by the President on Progress Against ISIL (Feb. 25, 2016), *at* https://www.whitehouse.gov/the-press-office/2016/02/25/remarks-president-progress-against-isil.

[2] *See infra* note 15.

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> capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.[3]

In line with Article 52(2) of Protocol I, the United States accepts that attacks should be directed against only "military objectives,"[4] and that military objects are defined as those that "make an effective contribution to military action"[5] and "whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage."[6]

A central question for our discussion is the meaning of objects that "effectively contribute to military action." More specifically, under what circumstances, if any, do objects such as revenue-generating infrastructure of a nonstate armed group qualify as military objectives?

Essentially all states agree that legitimate military targets include objects that make *direct* contributions to an armed group's military action such as military facilities and military equipment. There is also widespread agreement that this category includes *indirect* contributions to military action.[7]

The U.S. government's view of *indirect* contributions to military action includes two types of targets:

> (1) "war-fighting" capabilities—e.g., petroleum used to fuel military vehicles; and
>
> (2) "war-sustaining" capabilities—e.g., petroleum used to generate revenue to fund armed forces.

The first category—"war-fighting" capabilities—has received longstanding support from states and others, including the International Committee of the Red Cross (ICRC). For instance, the *Commentaries* to Additional Protocol I refer to a "model" list of Categories of Military Objectives drawn up by the ICRC, which include "[i]ndustries of fundamental importance for the conduct of the war[,] . . . installations providing energy mainly for national

[3] Protocol Additional to the Geneva Conventions of 12 August 1949 Relating to the Protection of Victims of International Armed Conflicts (Additional Protocol I), Art. 52(2), June 8, 1977, 1125 UNTS 3 (emphasis added).

[4] Harold Hongju Koh, Legal Adviser, U.S. Department of State, The Obama Administration and International Law, Speech at the Annual Meeting of the American Society of International Law, Washington D.C. (Mar. 25, 2010), *at* http://www.state.gov/s/l/releases/remarks/139119.htm.

[5] Brian Egan, Legal Adviser, U.S. Department of State, International Law, Legal Diplomacy, and the Counter-ISIL Campaign, Remarks at the Annual Meeting of the American Society of International Law, Washington D.C. (Apr. 4, 2016), *at* http://www.state.gov/s/l/releases/remarks/255493.htm.

[6] *Id.*

[7] *See* MICHAEL BOTHE, KARL JOSEF PARTSCH & WALDEMAR A. SOLF, NEW RULES FOR VICTIMS OF ARMED CONFLICTS: COMMENTARY ON THE TWO 1977 PROTOCOLS ADDITIONAL TO THE GENEVA CONVENTIONS OF 1949, 365 (1982) (Article 52, para. 2.4.3: "Military objectives must make an 'effective contribution to military action.' This does not require a direct connection with combat operation . . . ."). The ICRC Draft Article 43 had referred to objects that "contribute effectively and *directly* to the military effort of the adversary." International Committee of the Red Cross, Conference of Government Experts on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts, Geneva, 1974–1977, Vol. I: Report on the Work of the Conference, 2d Sess., May 3–June 3, 1972, at 146 (emphasis added), *available at* https://www.loc.gov/rr/frd/Military_Law/pdf/RC-Report-conf-of-gov-experts-1972_V-1.pdf. *Compare* Committee III Report, 2d Sess., para. 64, CDDH/215/Rev. 1 (Feb. 3–Apr. 1, 1975), *in* International Committee of the Red Cross, Conference of Government Experts on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts, Geneva, 1974–1977, Vol. XV: Committee III Official Records 259, 277 ("Extensive discussion took place before agreement was reached on the word 'definite' in the phrase 'definite military advantage.' Among the words considered and rejected were 'distinct,' 'direct,' 'clear,' 'immediate,' 'obvious,' 'specific,' and 'substantial.'"), *available at* http://www.loc.gov/rr/frd/Military_Law/pdf/RC-records_Vol-15.pdf.

defence, e.g. coal, other fuels, or atomic energy, and plants producing gas or electricity mainly for military consumption."[8]

The U.S. view of the second category—"war-sustaining" capabilities—has been much more controversial. At least prior to the conflict with ISIL, scholarly reviews suggested that the United States may be alone or almost alone among states in considering war-sustaining capabilities legitimate military targets.[9] The final report of the prosecutor for the International Criminal Tribunal for the Former Yugoslavia that reviewed NATO actions in the former Yugoslavia in the 1990s opposed an interpretation of military objectives that would have included war-sustaining targets.[10] Prevailing nongovernmental scholarly and expert opinion has also rejected the position held by the United States. For instance, in drafting the 1994 *San Remo Manual on International Law Applicable to Armed Conflicts at Sea*, the San Remo Round Table "firmly rejected"[11] a definition of military objectives that could include such war-sustaining targets.[12] This definition was also rejected by the majority of the group of experts who were invited to participate in drafting the 2009 *Harvard Humanitarian Policy and Conflict Research Manual on International Law Applicable to Air and Missile Warfare*[13] and the majority of the group of experts invited to participate in drafting the 2013 *Tallinn Manual on the International Law Applicable to Cyber Warfare*.[14] Further, a large body of scholarship includes many academic works that express grave doubts regarding or outright rejection of the U.S. view—including many international law scholars whose writings often align relatively closely with U.S. interpretations of law of armed conflict (LOAC) targeting rules.[15] With one exception,[16] none of these scholarly critics reference, let alone grapple with, the clearest evidence in favor

[8] *Article 52—General Protection of Civilian Objects*, *in* COMMENTARY ON THE ADDITIONAL PROTOCOLS OF 8 JUNE 1977 TO THE GENEVA CONVENTIONS OF 12 AUGUST 1949, 629, 632 n.3 (Yves Sandoz, Christophe Swinarski, & Bruno Zimmermann eds., 1987). [hereinafter ICRC COMMENTARY], *available at* http://www.loc.gov/rr/frd/Military_Law/pdf/Commentary_GC_Protocols.pdf. An important caution in assessing legal texts on this topic: depending on the context, an express mention of petroleum and energy facilities as a class of lawful military objectives may imply the exclusion of war-sustaining objects. For example, a list of permissible military targets that is limited to areas of the economy that directly support war-fighting capabilities (e.g., transportation and energy for military use) may implicitly exclude areas of economic activity that provide a financial base that funds the military effort.

[9] *See, e.g.*, AGNIESZKA JACHEC-NEALE, THE CONCEPT OF MILITARY OBJECTIVES IN INTERNATIONAL LAW AND TARGETING PRACTICE 92, 105 (2014); David Turns, *Targets*, *in* RESEARCH HANDBOOK ON INTERNATIONAL CONFLICT AND SECURITY LAW 342, 366 (Nigel D. White & Christian Henderson eds., 2013); Kenneth W. Watkin, *Coalition Operations: A Canadian Perspective*, 84 INT'L L. STUD. 251, 255 (2008).

[10] Final Report to the Prosecutor by the Committee Established to Review the NATO Bombing Campaign Against the Federal Republic of Yugoslavia, paras. 40–41 (June 13, 2000), *available at* http://www.icty.org/x/file/Press/nato061300.pdf.

[11] Horace B. Robertson, *The Principle of the Military Objective in the Law of Armed Conflict*, 8 U.S. AIR FORCE ACAD. J. L. STUD. 35, 50–51 (1997).

[12] INTERNATIONAL INSTITUTE OF HUMANITARIAN LAW, SAN REMO MANUAL ON INTERNATIONAL LAW APPLICABLE TO ARMED CONFLICTS AT SEA, para. 67.27 (Louise Doswald-Beck ed., 1995).

[13] PROGRAM ON HUMANITARIAN POLICY AND CONFLICT RESEARCH AT HARVARD UNIVERSITY, COMMENTARY ON THE HPCR MANUAL ON INTERNATIONAL LAW APPLICABLE TO AIR AND MISSILE WARFARE, para. 24(2) (2002).

[14] TALLINN MANUAL ON THE INTERNATIONAL LAW APPLICABLE TO CYBER WARFARE 131 (Michael N. Schmitt ed., 2013).

[15] JACHEC-NEALE, *supra* note 9, at 254; Stefan Oeter, *Methods and Means of Warfare*, *in* THE HANDBOOK OF INTERNATIONAL HUMANITARIAN LAW 113 (Dieter Fleck ed., 2d ed. 2013); A.P.V. ROGERS, LAW ON THE BATTLEFIELD (3d ed. 2012); Turns, *Targets*, *supra* note 9, at 366; WILLIAM H. BOOTHBY, THE LAW OF TARGETING 106 (2012); SANDESH SIVAKUMARAN, THE LAW OF NONINTERNATIONAL ARMED CONFLICT 344–45 (2012); YORAM DINSTEIN, THE CONDUCT OF HOSTILITIES UNDER THE LAW OF ARMED CONFLICT 93 (2d

of the U.S. interpretation of war-sustaining targeting; as discussed below, that evidentiary support includes an important passage in the leading treatise on Additional Protocol I.

II. U.S. VIEWS ON LEGALITY OF TARGETING WAR-SUSTAINING OBJECTS

Many commentators mistake which U.S. military manual first referred to war-sustaining targeting and the time period when these references emerged. Following the Additional Protocols to the Geneva Conventions in 1977, commentators by and large suggest that references to war-sustaining objects as legitimate military targets first appeared in the Navy's military manuals,[17] and some commentators believe those references began in the late 1990s.[18] The Navy manuals, however, included these references as far back as the late 1980s, not the late 1990s, and they were preceded by an important U.S. Air Force manual that was released in 1980.[19]

Within three years after the adoption of the final text for Additional Protocol I and soon after the United States became a signatory to the treaty, the U.S. Air Force published the *Commander's Handbook on the Law of Armed Conflict* (the *Air Force Handbook*).[20] In a section titled, "Economic Targets Which Support Military Action," the *Air Force Handbook* stated:

> Indirect Economic Support. It is permissible to attack economic targets that give only indirect support to enemy operations, so long as that support is effective and a definite military advantage can be foreseen. As long ago as the 1870s, for example, international courts recognized that the destruction of Confederate bales of cotton was justified during the American Civil War, since the sale of cotton provided funds for importing almost all Confederate arms and ammunition.[21]

This view was echoed in the 1987 *Commander's Handbook on the Law of Naval Operations* (the *Navy Handbook*) and its *Annotated Supplement* of 1989. The *Navy Handbook* stated: "Economic targets of the enemy that indirectly but effectively support and sustain the enemy's

ed. 2010); Christine Byron, *International Humanitarian Law and Bombing Campaigns: Legitimate Military Objectives and Excessive Collateral Damage*, 2010 Y.B. INT'L. HUMANITARIAN L. 175, 188; Watkin, *supra* note 9, at 255; Michael Schmitt, *Fault Lines in the Law of Attack*, *in* TESTING THE BOUNDARIES OF INTERNATIONAL HUMANITARIAN LAW 277, 281 (Susan C. Breau & Agnieszka Jachec-Neale eds., 2006); Wolff H. von Heinegg, *Commentary*, 78 INT'L L. STUD. 204 (2002); Yoram Dinstein, *Legitimate Military Objectives Under the Current Jus in Bello*, 78 INT'L L. STUD. 145–46 (2002); Frits Kalshoven, *Remarks—Implementing Limitations on the Use of Force: The Doctrine of Proportionality and Necessity*, 86 ASIL 39, 43 (1992); *cf.* Robertson, *supra* note 11, at 50–51.

[16] Robertson, *supra* note 11. Given Robertson's nuanced analysis, it is difficult to categorize him as a clear critic of the U.S. view.

[17] The only exception I have found is a paper by William Fenrick, which was notably presented at an expert meeting including several law of war scholars. William J. Fenrick, *Military Objectives in the Law of Naval Warfare*, *in* THE MILITARY OBJECTIVE AND THE PRINCIPLE OF DISTINCTION IN THE LAW OF NAVAL WARFARE 1, 27 (Wolff H. von Heinegg ed., 1991).

[18] *See, e.g.*, Kenneth W. Watkin, *Targeting "Islamic State" Oil Facilities*, 90 INT'L L. STUD. 499, 503 (2014) (stating "[t]his approach seems to have been first referred to in the 1997 [sic] United States *Commander's Handbook on the Law of Naval Operations*" and also citing the "1999" SUPPLEMENT); JACHEC-NEALE, *supra* note 9, at 100 (noting that "[t]his appears to be the first reference in US military literature to both terms," citing 1987 COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS and 1997 ANNOTATED SUPPLEMENT)).

[19] Commentators have drawn inferences from the supposed dates and sources of the first references in U.S. military manuals. *See, e.g.*, Janina Dill, *The 21st-Century Belligerent's Trilemma*, 1 EUR. J. INT'L L. 83 (2015); JACHEC-NEALE, *supra* note 9, at 100.

[20] U.S. DEPARTMENT OF THE AIR FORCE, COMMANDER'S HANDBOOK ON THE LAW OF ARMED CONFLICT AFP 110-34 (1980).

[21] *Id.* at 2-3(a).

war-fighting capability may also be attacked."[22] An accompanying footnote in the *Annotated Supplement* invoked the same example as the *Air Force Handbook*, namely, the destruction of cotton during the American Civil War.[23] There are good reasons to question whether the Civil War arbitral tribunal should serve as any sort of precedent for modern LOAC.[24] Nevertheless, the military manuals' repeated invocation of that case helps to clarify their authors' intent and understanding of the concept of legitimate military objectives.

The United States has also made clear that it interprets the phrase "effective contribution to military action" to include contributions to war-sustaining objects. The *Navy Handbook Annotated Supplement*, for instance, states that the definition codified in Article 52(2) reflects customary international law, but replaces the term "military action" found in Article 52(2) with "war fighting and war sustaining capabilities."[25] In other words, the latter is treated as synonymous with "military action." Subsequent editions of the *Navy Handbook* and *Annotated Supplement* include that same language. The Military Commissions Act of 2009 is also consistent with that approach[26]—at least on its face.[27] The 2016 Department of Defense *Law of War Manual* also uses the terms "war fighting and war-sustaining" as synonymous with "military action."[28] And a 2016 speech by the Legal Adviser to the State Department confirms this understanding.[29]

In short, the United States has now made clear that war-sustaining objects are a subset of the standard definition of military objectives, and U.S. military manuals have long made clear that war-sustaining objects can, under certain circumstances, include an industry that generates revenue used to fund an enemy's armed forces. The Obama administration's recent turn to targeting ISIL's petroleum to deny revenue to the group fits within that line of reasoning.

III. The Law on Military Objectives and War-Sustaining Objects

At the outset, two important caveats should be acknowledged in interpreting and applying the definition of military objectives. First, a threshold question is whether the rule in Article

[22] U.S. Department of the Navy, The Commander's Handbook on the Law of Naval Operations 8-3 (1987).

[23] U.S. Department of the Navy, Annotated Supplement to the Commander's Handbook on the Law of Naval Operations 8-3 n.11 (1989); *see also id.* at 7-23 n. 88.

[24] *See infra* note 34.

[25] Annotated Supplement to the Commander's Handbook on the Law of Naval Operations (1989), *supra* note 23, at 8-2 to 8-3 (section 8.1.1).

[26] Military Commissions Act of 2009, 10 U.S.C. §950p(a)(1) ("The term 'military objective' means . . . those objects during hostilities which, by their nature, location, purpose, or use, effectively contribute to the war-fighting or war-sustaining capability of an opposing force . . . ."); *see also* U.S. Department of Defense, *Military Commission Instruction No. 2: Crimes and Elements for Trials by Military Commission*, sec. 5(D) (Apr. 30, 2003).

[27] There is arguably tension between the MCA's treatment of war-sustaining objects and the Obama administration's prosecution of Ahmed al-Darbi. The MCA offense of attacking civilian objects treats war-sustaining objects as lawful military targets. 10 U.S.C. §950p(a)(1), §950t(3). The government charged al-Darbi for attacking a French oil tanker. *See* Charge Sheet, MC Form 458 at 7, United States v. al-Darbi, Charge II (Jan. 2007); *see also* Arraignment Proceedings, Rules for Military Commissions 803 Session, United States v. al-Darbi (Feb. 20, 2014) (Judge Allred stating "a new definition that applies here under Charge II is 'military objective,' which means those objects during hostilities which by their nature, location, purpose or use, effectively contribute to the enemy's war-fighting or war-sustaining capability . . . this offense requires proof beyond reasonable doubt that you knew or should have known that the property which was the object of the attack was not a military objective.").

[28] Department of Defense, Law of War Manual (2015) (updated 2016).

[29] Egan, *supra* note 5 ("The United States has interpreted this definition to include objects that make an effective contribution to the enemy's war-fighting or war-sustaining capabilities.").

52(2) of Additional Protocol I applies to noninternational armed conflict under customary international law. For the purposes of this article, I assume that it does.[30]

Second, it should be acknowledged that the wording of Article 52(2) does not provide clear boundaries. The *ICRC Commentaries* recognize this ambiguity: "The text of this paragraph certainly constitutes a valuable guide, but it will not always be easy to interpret, particularly for those who have to decide about an attack . . . ."[31] To the extent that there are substantial differences among parties to Additional Protocol I with respect to how they interpret and apply Article 52(2), this ambiguity might also reflect a degree of flexibility or vagueness in the customary international law rule.

The Leading Treatise on Additional Protocol I Supports the U.S. Position

There are two potential interpretations of Article 52(2). The most common interpretation is that Additional Protocol I significantly narrowed the scope of military objectives and omitted war-sustaining capabilities from the definition. Notably, even important academic commentary that favors the U.S. claim to be able to target war-sustaining capabilities argues that the U.S. view must be based on customary international law that is broader in scope than the narrower definition of "military objectives" in Article 52(2).[32]

An alternative interpretation of Additional Protocol I is that it preserved, or returned to, a broad definition of military objectives. Lost in almost all of the expert commentary[33] is that the leading treatise on Additional Protocol I—Bothe, Partsch and Solf (the Bothe Treatise)—clearly supports this interpretation and, in particular, the view that Article 52(2) includes war-sustaining capabilities within the definition of military objectives. The key is a footnote in the Bothe Treatise, which is worth producing in full:

> With respect to persons, the ICRC attempted to distinguish civilians who (1) participate directly in combat operations, (2) those who are linked "to the military effort without

[30] *See supra* notes 4–6; *see also* Prosecutor v. Tadić, Case No. IT-94-1-AR72, Appeal on Jurisdiction, paras. 100–27 (Oct. 2, 1995); Prosecutor v. Strugar, Case No. IT-01-42-T, para. 224 (Jan. 31, 2005); UK MINISTRY OF DEFENCE, THE JOINT SERVICE MANUAL OF THE LAW OF ARMED CONFLICT, para. 15.9.1 (2004).

[31] ICRC COMMENTARY, *supra* note 8, para. 2016 ("Article 52—General Protection of Civilian Objects"); *see also id.*, para. 2019 ("The adjectives considered and rejected included the words: 'distinct' (distinct), 'direct' (direct), 'clear' (net), 'immediate' (immédiat), 'obvious' (évident), 'specific' (spécifique) and 'substantial' (substantiel). The Rapporteur of the Working Group added that he was not very clear about the reasons for the choice of words that was made."); *see also* Summary Record, 24th mtg., para. 31, CDDH/III/SR.24 (Feb. 25, 1975), *in* International Committee of the Red Cross, Conference of Government Experts on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts, Geneva, 1974–1977, Vol. XIV: Committee III Official Records 217, 222 (statement of Swiss delegate: "The term 'effective contribution to military action' was imprecise, and the words 'military action' should be examined by the Drafting Committee in order to avoid any ambiguity.").

[32] IAN HENDERSON, THE CONTEMPORARY LAW OF TARGETING 142–44 (2009). Hays Parks' landmark article, *Air War and the Law of War*, 32 AIR FORCE L. REV. 1 (1990), contributed significantly to this understanding. Parks criticized Article 52(2) as too restrictive and not reflective of customary international law and state practice. *See, e.g.*, *id.* at 139, 141. Parks, however, appears to have reversed his position in subsequent writing. In 2007, Parks published an essay that praised Article 52(2) on the ground that its definition of "military objective" is broad and permits targeting war-sustaining capabilities, and is also consistent with U.S. practices. *See* W. Hays Parks, *Asymmetries and the Identification of Legitimate Military Objectives*, *in* INTERNATIONAL HUMANITARIAN LAW FACING NEW CHALLENGES 65, 89, 101 (2007).

[33] This is not a widely known or cited fact about the Bothe Treatise. None of the commentators who support a narrow interpretation of Article 52(2) even mention this discussion in the treatise. Perhaps this oversight is because the treatise buried its analysis in a footnote.

> being the direct cause of damage inflicted on the adversary on the military level," and (3) those linked to "the war effort" which States generally demand of all persons under their sovereignty. Only the first class of civilians were to be the object of attack. Presumably, the objects used in the activities mentioned in the second clause are legitimate objects of attack. These are referred to in this Commentary as linked to the military phase of a Party's overall war effort. See ICRC, Conf. Gvt. Experts, 1971, Doc. vol. III, pp. 27–28. See Carnahan, *Protecting Civilians under the Draft Geneva Protocol: A Preliminary Inquiry* 18 Air Force Law Review 47–48 (1976) for an analysis of this definition. The author points out that the test of effective contribution to military action, would again justify the destruction of raw cotton by the Union during the American Civil War, not because raw cotton had any value as an implement of war, but because "in the circumstances ruling at the time" it was the Confederacy's chief export and thus the ultimate source of all Confederate weapons and military supplies. Claims for the destruction of British-owned cotton were disallowed by an Anglo-American arbitration tribunal (Report of the US Agent, 6 *Papers Relating to the Treaty of Washington*, pp. 52–57 (1874)).[34]

Notably, one of the most controversial aspects of the U.S. position is the military manuals' reference to the destruction of cotton during the Civil War as an illustration of lawful targeting of war-sustaining objectives[35]—yet the Bothe Treatise also takes up the cotton case as a primary example and endorses it as such. In short, the treatise specifically supports the proposition that a revenue-generating object can make an effective contribution to military action under some circumstances.

The article by Carnahan in the *Air Force Law Review* is also significant, not only because the Bothe Treatise commends the article "for an analysis of this definition," but also because it was written around the time that treaty negotiations settled on the final wording of Article 52(2). Carnahan's analysis clearly supports the view that the definition of military objectives in Article 52(2) "is broad and general," "flexible enough to permit, for example, the federal practice of destroying Confederate cotton in the American Civil War," and "similar to . . . the concept that guided the decisions of the Anglo-American arbitration tribunal after the United States Civil War."[36]

It is difficult to exaggerate the importance of this interpretation of Article 52(2) for our discussion. If the 1977 treaty permits an attack on a certain class of objects under circumstances at issue in our discussion, customary international law would surely permit the same attack too. It will be important to keep that point in mind when we turn to the available cases of state practice and *opinio juris*.

[34] BOTHE, PARTSCH & SOLF, *supra* note 7, at 366 n.15.

[35] One caveat: The references to the Anglo-American arbitration tribunal's *Cotton Claims*—in the *Air Force Handbook*, *Navy Handbook Supplement*, the Bothe Treatise, and Carnahan article—may be based on a flawed assumption. The Civil War claims concerned confiscation and destruction of property and not the definition of permissible military targets. Notably, the 2016 Department of Defense *Law of War Manual* implicitly recognizes the distinction. The manual does not refer to the cotton example under targeting rules and definitions of military objectives, but instead under rules governing "Seizure and Destruction of Enemy Property." *See* DEPARTMENT OF DEFENSE, LAW OF WAR MANUAL, *supra* note 28, sec. 5.17.

[36] Burrus M. Carnahan, *Protecting Civilians Under the Draft Geneva Protocol: A Preliminary Inquiry*, 18 AIR FORCE L. REV. 32, 47–48 (1976).

Joint Chiefs of Staff Review of Article 52(2)

In 1985, the Joint Chiefs of Staff (JCS) concluded a comprehensive review of Additional Protocol I in consideration of possible U.S. ratification of the treaty. The final review's conclusions favor a broad interpretation of Article 52(2). As an initial matter, the JCS determined that the definition in Article 52(2) was "consistent with customary international law."[37] That statement suggests that the JCS came to the conclusion that existing U.S. practices were consistent with Article 52(2). Importantly, the JCS specifically concluded that the definition was "broad enough to meet military requirements" and, in particular, that the definition of military objectives could include "political and economic activities that support the enemy's war effort."[38]

Two qualifications should be borne in mind. First, these statements about the definition in Article 52(2) do not necessarily include war-sustaining capabilities. As a conceptual matter, the reference to "political and economic activities that support the enemy's war effort" might encompass only war-fighting capabilities (e.g., railroads and energy supplies that are directly used by military forces). Second, it is not clear how to square the final review's statements with JCS statements made about three years earlier on the same topic.

In 1982, the JCS provided a preliminary assessment of Additional Protocol I. In that report, the JCS highlighted that its analysis was tentative, describing the report as an "informal preliminary but substantive analysis of the major areas of likely JCS concern with the protocols."[39] The 1982 report suggested that the definition of military objectives in Article 52(2) was potentially narrow and might restrict U.S. military actions. The JCS preliminary report stated:

> Strategy aimed at destruction of the enemy's political infrastructure or economic or industrial establishment might result in targeting objects that make only a remote contribution to military action but significantly curtail the enemy's will to continue hostilities. To the extent that this article prohibits strategic bombing, it could severely impede U.S. war efforts.[40]

The most plausible explanation for the discrepancy between the preliminary (1982) and final (1985) reports is that the JCS came to the conclusion that the definition of military objectives in Article 52(2) was broad enough to allow for strategic bombing. Why else would the 1985 final report conclude that Article 52(2) was unobjectionable and consistent with U.S. "military requirements"? It is notable that the reports were close in time to the 1980 *Air Force Handbook* and 1980s *Navy Handbooks*, which included war-sustaining objects under the definition of legitimate military objectives. Of course, an alternative explanation is that the JCS or the administration determined that U.S. military doctrine could be altered consistent with a narrower reading of Article 52(2). It is doubtful that degree of change in U.S. practice would

[37] Memorandum from the Joint Chiefs of Staff to the Secretary of Defense, Review of the 1977 First Additional Protocol to the Geneva Conventions of 1949, app. at 51 (May 3, 1985).

[38] *Id.* at 51; *cf. The Sixth Annual American Red Cross Washington College of Law Conference on International Humanitarian Law: A Workshop on Customary International Law and the 1977 Protocols Additional to the 1949 Geneva Conventions*, 2 AM. U. J. INT'L L. & POL. 419, 436 (1987) (summary report that "Mr. MATHESON . . . indicated that the United States has no great concern over the new definition of 'military objective' set forth in article 52(2) of Protocol I").

[39] Joint Chiefs of Staff, Review of the 1977 Protocols to the 1949 Geneva Conventions, 2, JCS 2497/24-4 (Sept. 13, 1982).

[40] Annex D to Appendix A: Informal Preliminary Analysis of the 1977 Protocols, para. 16, *in id.*, at 22, 33.

be contemplated, especially in such a short time, and if it were, the final report would presumably have expressed that as part of the explanation.

State Practice and Other International Support for War-Sustaining Targeting

Significant state practice and *opinio juris* support targeting war-sustaining objects. The following cases (including a nontrivial counterexample) are discussed in reverse-chronological order.[41]

French, Russian, and U.K. operations against ISIL oil revenues (2015–present)

In the conflict against ISIL, French, Russian, and U.K. officials have stated that their armed forces have targeted petroleum installations to deny revenue to ISIL. Express statements have been made by the president of France,[42] the president of Russia,[43] and the U.K. Ministry of Defense.[44]

NATO operations against Taliban narcotics revenues (2008–2014)

NATO's use of lethal force to deny the Taliban revenues from the sale of narcotics provides an example of broad state practice in favor of the U.S. position. Most importantly, at an October 2008 meeting in Budapest, NATO defense ministers formally agreed to provide such authority.[45] It is important, however, to note two aspects of the NATO action which some U.S. allies reportedly resisted at the time. That resistance qualifies the strength of the precedent, but only to a limited degree.

[41] The Falklands/Malvinas conflict in 1982 may provide another example in favor of the U.S. position. *See* George K. Walker, *State Practice Following World War II, 1945–1990*, 65 INT'L L. STUD. 121, 153, 188 (1993). Other examples might include the U.S. bombing campaign in North Vietnam, including attacks on hydroelectric facilities, and U.S.-led airstrikes against irrigation dams in the Korean War. *But cf. Secretary of State Dean Rusk, News Conference*, 55 DEP'T STATE BULL. 157 (1966) ("The military purpose of these bombings [of petroleum-oil lubricants installations] was to make it more difficult for North Viet-Nam to send large numbers of men and large quantities of supplies into South Viet-Nam for the purpose of taking over that country by force."). *Cf.* NEW ZEALAND DEFENCE FORCE, INTERIM LAW OF ARMED CONFLICT MANUAL, sec. 516(5) (1992); ECUADOR, NAVAL MANUAL, sec. 8.1.1 (1989).

[42] Press Conference by François Hollande and Vladimir Putin (Nov. 26, 2015), *available at* http://www.globalresearch.ca/jointly-combating-international-terrorism-francois-hollande-in-moscow-with-vladimir-putin/5492291; *see also* Alissa J. Rubin & Anne Barnard, *France Strikes ISIS Targets in Syria in Retaliation for Attacks*, N.Y. TIMES, Nov. 15, 2015, at A1.

[43] Press Conference by François Hollande and Vladimir Putin, *supra* note 42; *see also Russian Airstrikes Blast ISIS Oil Facilities in Syria*, CBS NEWS (Nov. 25, 2015), *at* http://www.cbsnews.com/news/russian-airstrikes-blast-isis-oil-facilities-in-syria.

[44] U.K. Ministry of Defence, *Guidance: RAF Air Strikes in Iraq and Syria: December 2015* (Feb. 16, 2016), *at* https://www.gov.uk/government/publications/british-forces-air-strikes-in-iraq-monthly-list/raf-air-strikes-in-iraq-and-syria-december-2015; U.K. House of Commons Foreign Affairs Committee, *The UK's Role in the Economic War Against ISIL, First Report of Session 2016–17*, *HC 121* (July 5, 2016), *available at* http://www.publications.parliament.uk/pa/cm201617/cmselect/cmfaff/121/121.pdf.

[45] Report to the U.S. Senate Committee on Foreign Relations, Afghanistan's Narco War: Breaking the Link Between Drug Traffickers and Insurgents, 111th Cong., 1st Sess., at 6 (Aug. 10, 2009) [hereinafter Senate Report]; NATO Press Release, NATO Steps Up Counter-narcotics Efforts in Afghanistan (Oct. 10, 2008); Michael Schmitt, *Targeting Narcoinsurgents in Afghanistan: The Limits of International Humanitarian Law*, 2009 Y.B. INT'L. HUMANITARIAN L. 301.

First, the Budapest agreement was reportedly a watered-down compromise; it included allowances for national caveats so that NATO partners could opt out of these operations. According to news reports:

> [T]he accord also accommodate[d] objections from some of the 26 NATO nations that contribute troops to the 50,000-strong NATO force. Attacks on drug "facilities and facilitators supporting the insurgency" are to occur only if the NATO and Afghan troops involved have the authorization of their own governments, a provision that will allow dissenting nations to opt out of counternarcotics strikes.[46]

Reluctance to include attacks on drug networks reportedly came from Germany, Italy, Poland, and Spain.[47]

Second, International Security Assistance Force's (ISAF) authority to use force subsequently created disagreement among NATO member states. Accounts of that dispute are presented in a widely-discussed Senate report,[48] the news media,[49] and an article by a senior legal advisor to the Ministry of Defense of the Netherlands.[50] That disagreement should not be overstated.

According to open source reporting,[51] it appears that the internal dispute was over a specific application of the NATO defense ministers' 2008 agreement, and not over the general authority to use force to target drug networks linked to the insurgency. Reportedly, General Bantz Craddock issued a guidance in January 2009 which stated that there was no reason to find a link between the narcotics facilities or traffickers and the Taliban insurgency; that guidance reportedly met with stiff resistance and was quickly rescinded on January 30, 2009.[52] The disagreement was apparently not about the overall decision to use force against parts of the narcotics network linked to the insurgency. Indeed, ISAF authority and operations for use of force in cases involving a "nexus" between the narcotics network and the Taliban insurgency continued for several years.[53]

[46] Judy Dempsey & John F. Burns, *Under Pressure from U.S., NATO Agrees to Take Aim at Afghan Drug Trade*, N.Y. TIMES, Oct. 10, 2008, at A10; Thom Shanker, *Obstacle Seen in Bid to Curb Afghan Trade in Narcotics*, N.Y. TIMES, Dec. 22, 2008, at A6. Note that the latter news story from late December 2008 refers to "*new* objections from member nations that say their laws do not permit soldiers to carry out such operations" (emphasis added). However, it is unclear whether those are essentially the same "objections," as indicated in the prior reporting, which were accommodated by national caveats in the Budapest accord. It is also unclear whether the foreign states' concerns related to international law or their own domestic law and policy. The December 2008 *New York Times* story suggests it may have related primarily to the domestic allocation of authorities. *Id.* ("Their leaders have cited domestic policies that make counternarcotics a law enforcement matter—not a job for their militaries—and expressed concern that domestic lawsuits could be filed if their soldiers carried out attacks to kill noncombatants . . . .").

[47] Dempsey & Burns, *supra* note 46; Shanker, *supra* note 46.

[48] Senate Report, *supra* note 45, at 16 ("The authorization for using lethal force on traffickers caused a stir at NATO earlier this year when some countries questioned whether the killing traffickers and destroying drug labs complied with international law.").

[49] *See, e.g.*, Susanne Koelbl, *Battling Afghan Drug Dealers: NATO High Commander Issues Illegitimate Order to Kill*, DER SPIEGEL ONLINE (Jan. 29, 2009), *at* http://www.spiegel.de/international/world/battling-afghan-drug-dealers-nato-high-commander-issues-illegitimate-order-to-kill-a-604183.html.

[50] Marten Zwanenburg, *Challenges to Legal Interoperability, International Humanitarian Law Interoperability in Multinational Operations*, 79 INT'L REV. RED CROSS 681 (2013).

[51] *Id.*; Schmitt, *supra* note 45; Koelbl, *supra* note 49.

[52] Schmitt, *supra* note 45, at 302.

[53] *See, e.g.*, William F. Wechsler, Deputy Assistant Secretary of Defense Counternarcotics and Global Threats, Statement for the Record Before the Senate Caucus on International Narcotics Control: Counternarcotics Efforts in Afghanistan 5 (July 20, 2011) ("U.S. military forces conduct operations against drug-insurgency nexus targets

As a final note, the use of force in the context of ISIL-petroleum targeting may be on even stronger ground than the use of force in the case of Taliban-opium targeting. The Taliban may not have been directly involved in the poppy production and sales;[54] in contrast, ISIL's level of control and operation of petroleum production and sales potentially involve a much stronger nexus.

Ethiopian operation against electrical power station in Eritrean-Ethiopian War (1998–2000)

In May 2000, Ethiopia conducted airstrikes against the Hirgigo Power Station in Eritrea during the armed conflict between the two countries. A judgment by the Eritrea Ethiopia Claims Commission held that Article 52(2) of Additional Protocol I reflected customary international law and that Ethiopia's military operation satisfied that legal standard. The tribunal's reasoning relied on a broad conception of war-sustaining capabilities. The majority stated: "The Commission agrees with Ethiopia that electric power stations are generally recognized to be of sufficient importance to a State's capacity to meet its wartime needs of communication, transport and industry so as usually to qualify as military objectives during armed conflicts."[55] This understanding of the military significance of the power plant also informed the tribunal's analysis of whether destroying the plant offered a "definite military advantage." In that regard, the tribunal stated: "[T]he fact that the power station was of economic importance to Eritrea is evidence that damage to it, in the circumstances prevailing in late May 2000 when Ethiopia was trying to force Eritrea to agree to end the war, offered a definite advantage."[56] In short, the tribunal's analysis appears to accept Ethiopia's actions as a form of strategic bombing.

NATO operations in Kosovo intervention (1999)

During Operation Allied Force, Supreme Allied Commander of NATO General Wesley Clark described target sets in terms consistent with war-sustaining capabilities.[57] The U.S.

that meet very specific rules of engagement criteria as part of the counter-insurgency campaign. Persons and organizations that meet these criteria become legitimate military targets . . . ."); U.S. AIR FORCE, AIR FORCE OPERATIONS AND THE LAW 272 (3d ed. 2014) ("The United States and other members of International Security Assistance Force (ISAF) consider the Taliban-controlled drug labs and drug caches to make an effective contribution to the Taliban's military capability and therefore legitimate targets that may be lawfully targeted by military forces.").

[54] Schmitt, *supra* note 45, at 317 ("The causal link is especially attenuated in the Taliban case because they do not grow the crop, produce the opium, or transport or smuggle the drugs. The group merely profits from the illicit actions of others."); *id.* at 307.

[55] *See* Western Front, Aerial Bombardment and Related Claims (Eri. v. Eth.), Eritrea's Claims 1, 3, 5, 9–13, 14, 21, 25, 26, Partial Award, para. 117 (Eritrea Ethiopia Claims Comm'n Dec. 19, 2005), 45 ILM 396 (2006).

[56] *Id.*, para. 121; *see also id.* ("The infliction of economic losses from attacks against military objectives is a lawful means of achieving a definite military advantage, and there can be few military advantages more evident than effective pressure to end an armed conflict that, each day, added to the number of both civilian and military casualties on both sides of the war.").

[57] NATO Summit Press Conference by NATO Secretary General Javier Solana and Supreme Allied Commander Europe General Wesley K. Clark (Apr. 23, 1999), *at* http://www.nato.int/docu/speech/1999/s990423k.htm ("Our forces are conducting simultaneous strikes on two air lines of operation: a strategic attack against [President Milošević's] integrated air defence system, higher level command and control, fielded forces both army and police, *sustaining infrastructures and resources* in military supply routes[.]"/"[W]e have inflicted significant damage to *military industrial targets* and maintenance facilities in order to disrupt his ability to repair and reconstitute air, missile and ground forces[.]"/"We continue our efforts to destroy methodically all strategic and tactical elements of his capability to conduct military operations in Kosovo, his military and police forces in the field, and their reinforcing and *sustaining* units and facilities." (emphasis added)).

Defense Department's *Kosovo/Operation Allied Force After-Action Report*, which was submitted to Congress, also stated that during a NATO Summit "alliance leaders decided to further intensify the air operation by expanding the target set to include military-industrial infrastructure . . . and other strategic targets . . . ."[58] In reference to NATO's actions, Hays Parks wrote: "*War-sustaining* and/or *war-fighting* reflect State practice. Historical evidence and the description of the target sets agreed upon by NATO governments in ALLIED FORCE support the idea that nations have, do, and will attack not only an enemy's war-fighting capability, but also his capacity to sustain the conflict."[59]

Coalition operations in Persian Gulf War (1990–1991)

The 1997 *Annotated Supplement* to the *Navy Handbook* references Operation Desert Storm as an example of economic targets that fit a broad definition of military objectives. The *Supplement* states: "The target sets for the offensive air campaign of Operation Desert Storm illustrate the range of objectives, both military and economic, which may be attacked. The 12 target sets [included]: . . . Electricity Production Facilities [and] . . . Oil Refining and Distribution Facilities."[60] The clearer example of war-sustaining targeting in this case arguably involved attacks on electricity production facilities. As the Department of Defense reported to Congress in 1992, the Coalition targeted objects that provided "support for a nation's war effort," including electrical utilities that provided energy to industries that manufactured chemical and biological weapons.[61] Those targets were multiple degrees of remove from their contribution to military action.

It is more ambiguous whether the Coalition's targeting of Iraq's oil infrastructure was limited to the purpose of denying fuel to Iraq's military (war-fighting capabilities) or also included denial of oil revenue to Iraq (war-sustaining capabilities). In discussing attacks on Iraq's oil infrastructure, the Department of Defense report to Congress explained that Iraq had become a "major oil producing and refining nation" but then explained that "Coalition planners targeted Iraq's ability to produce refined oil products (such as gasoline) that had *immediate military use*, instead of its long-term crude oil production capability."[62] A submission by the United Kingdom to the UN Security Council stated: "Iraq's ability to *sustain* a war has been steadily reduced. Oil refining capacity, which has been specifically targeted with the objective of reducing Iraq's *military sustainability*, has been reduced by 50 per cent."[63] These actions should perhaps be understood in combination with other Coalition operations, including a naval embargo to block Iraqi oil exports, and Turkey's and Saudi Arabia's shutting down of

[58] Department of Defense, Report to Congress: Kosovo/Operation Allied Force After-Action Report 23 (Jan. 31, 2000).

[59] Parks, *Asymmetries and the Identification of Legitimate Military Objectives*, *supra* note 32, at 100.

[60] OCEANS LAW AND POLICY DEPARTMENT, U.S. NAVAL WAR COLLEGE, ANNOTATED SUPPLEMENT TO THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS 8-3 n. 11 (1997).

[61] *See* Department of Defense, Final Report to Congress: Conduct of the Persian Gulf War 612 (Apr. 1992) ("Industries essential to the manufacturing of CW, BW and conventional weapons depended on the national electric power grid.").

[62] *See id.* at 150 (emphasis added).

[63] Letter from the Permanent Representative of the United Kingdom of Great Britain and Northern Ireland to the United Nations Addressed to the President of the Security Council, UN Doc. S/22156 (Jan. 28, 1991) (emphasis added).

Iraqi oil pipelines.[64] In other words, a general objective of the Coalition was clearly to shut down Iraq's oil exports. Whether the air campaign was in service of that objective is less clear.

A final and important aspect of Operation Desert Storm involved oil trucks driven across western Iraq toward Jordan. The Coalition did *not* consider these oil trucks legitimate military targets. There is no indication that the Coalition thought to consider whether the oil trucks could be deemed a military objective. According to statements by the Department of Defense, Department of State, and senior U.S. military officials, these trucks were simply considered civilian objects and any Coalition attack on them as such was unintentional or accidental.[65] The Foreign Minister of Jordan also stated that "the Jordanian trucks were oil tankers—not military vehicles."[66]

State and U.N. actions during Iran-Iraq War (1980–1988)

The Iran-Iraq War includes multiple examples involving relevant state practice and *opinio juris*. With regard to the operational practices of the two belligerents, both Iran and Iraq attacked each other's oil installations and vessels transporting oil which was used to generate revenue for their war economy.[67] A U.N. secretary-general fact-finding report on "Civilian Areas in Iran and Iraq Which Have Been Subject to Military Attack" appeared to imply that oil installations were legitimate targets of military significance.[68] The UN Security Council lauded the findings and analysis of that report.[69] Also, remarkably, according to the report, Iran

[64] Final Report to Congress: Conduct of the Persian Gulf War, *supra* note 61, at 125–26 ("In combination with the naval embargo, the Strategic Air Campaign's early effect on Iraqi war support infrastructure was substantial. Iraq's internal fuels refining and production capability was shut down, limiting its ability to produce fuel for its tanks, planes, and war-supporting infrastructure and resulting in government-imposed rationing of pre-attack inventory."); *id.* at 504 (describing effectiveness of Coalition naval embargo, "ships were deterred from loading Iraqi oil while Turkey and Saudi Arabia prohibited use of Iraqi oil pipelines which crossed their territory. Virtually all Iraqi oil revenues were cut off, and the source of much of Iraq's international credit was severed, along with 95 per cent of the country's total pre-invasion revenue.").

[65] *See, e.g.*, *id.* at 627 ("At night, some oil trucks were mistaken for mobile Scud launchers or other military vehicles; other trucks and civilian vehicles were struck incidental to attack of legitimate military targets . . . . This collateral damage and injury, which occurred despite previously described Coalition efforts to minimize damage to civilian objects and injury to noncombatant civilians . . . ."); Department of State Daily Briefing, Feb. 14, 1991; Human Rights Watch, *Civilian Casualties During the Air Campaign and Violations of the Laws of War* (1991), *at* https://www.hrw.org/reports/1991/gulfwar/INTRO.htm (quoting statements by Lt. Gen. Thomas Kelly, director of operations for Joint Chiefs of Staff; Maj. Gen. Robert Johnston, chief of staff at U.S. headquarters in Riyadh; State Department spokeswoman).

[66] Mark Fineman, *Allies Bombing Them, Refugees Say*, L.A. TIMES (Jan. 31, 1991), *at* http://articles.latimes.com/1991-01-31/news/mn-446_1_iraqi-border-guards (internal quotation marks omitted).

[67] Parks, *Asymmetries and the Identification of Legitimate Military Objectives, supra* note 32, at 101 (citing Iran-Iraq Tanker War as example of state practice targeting war-sustaining capabilities); ANNOTATED SUPPLEMENT TO THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS (1989), *supra* note 23, at 7-25 n. 98 ("Whether classified as absolute or conditional contraband, oil and the armaments which its sale or barter on international markets bring, were absolutely indispensable to the war efforts of the Persian Gulf belligerents."); Walker, *supra* note 41, at 158 (discussing Iran-Iraq Tanker Wars).

[68] Report of the Secretary-General on the Mission to Inspect Civilian Areas in Iran and Iraq Which Have Been Subject to Military Attack, UN Doc. S/15834 (June 20, 1983). The Report used as its criteria the distance between strikes on civilian areas "from front lines and/or military installations" and their "proximity to communications and/or economic installations of strategic or military significance." *Id.*, para. 3. Throughout the report, oil installations are considered economic installations of military significance. *See also id.*, para. 96 ("In the opinion of the mission, the oil refinery was the main target of the attack, but a number of civilian targets at some distance from it had also been hit."); *id.*, para. 32 ("The area is mainly agricultural and is not in a military zone. However, there were oil installations nearby in Abu Ghareib and Baid.").

[69] SC Res. 540 (Oct. 31, 1983) ("expressing its appreciation to the Secretary-General for presenting a factual, balanced, and objective account").

accepted that its own oil infrastructure "could be considered an economic installation of military significance and, therefore, a legitimate target" for Iraq to attack.[70]

The United States also appeared to take the position that Iran would have no legal basis to attack U.S.-flagged (Kuwaiti) vessels carrying oil, *as long as those vessels were not carrying oil exports directly from Iraq*. The U.S. administration stated:

> In providing this protection [to Kuwaiti vessels], our actions will be fully consistent with the applicable rules of international law, which clearly recognize the right of a neutral state to escort and protect ships flying its flag which are not carrying contraband. In this case, this includes the fact that U.S. ships will not be carrying oil from Iraq. Neither party to the conflict will have any basis for taking hostile action against U.S. naval ships or the vessels they will protect.[71]

Similarly, the UN Security Council only condemned attacks on vessels transporting oil to and from neutral ports; the Security Council did not criticize attacks on oil tankers leaving the belligerents' ports.[72]

The *1989 Navy Handbook Supplement* also stated that Iraq's initial attacks on tankers transporting oil directly from Iran might have been permissible as war-sustaining targeting.[73] Whether Iraq's attacks on vessels leaving Iran were considered lawful was complicated by the fact that some attacks involved vessels of neutral states and, at least in later years, on the high seas. In contrast, the *1997 Navy Handbook Supplement* concluded that Iran's attacks on oil tankers travelling between two neutral states clearly violated the law on neutral commerce.[74] These conclusions were consistent with statements by senior U.S. officials at the time.[75]

[70] Report of the Secretary-General on the Mission to Inspect Civilian Areas in Iran and Iraq Which Have Been Subject to Military Attack, *supra* note 68, para. 42 ("An oil refinery complex located near the city was said to have been almost destroyed and the remaining installations to be under constant attack. The mission was not taken to that area because, the Iranian authorities said, it was not a civilian area and could be considered an economic installation of military significance and, therefore, a legitimate target.").

[71] Richard W. Murphy, Assistant Secretary of State for Near Eastern and South Asian Affairs, Statement Before the Subcommittee on Europe and the Middle East, House Foreign Affairs Committee (May 19, 1987), *reprinted in* 87 DEP'T. STATE BULL. 59, 60–61 (1987); *see also* Casper W. Weinberger, Secretary of Defense, Report to Congress on Security Arrangements in the Persian Gulf (June 15, 1987), *reprinted in* THE IRAN-IRAQ WAR (1980–1988) AND THE LAW OF NAVAL WARFARE 158, 171 (Andrea de Guttry & Natalino Ronzitti eds., 1993) ("The United States will be in full compliance with international law in providing escort to the reflagged tankers. International law clearly recognizes the right of a neutral state to escort and protect its flag vessels in transit to neutral ports. The tankers will carry Kuwaiti oil to neutral ports and will return in ballast . . . . Neither the tankers nor their U.S. escorts will be legitimate objects of attack . . . .").

[72] SC Res. 552 (June 1, 1984) ("Reaffirms the right of free navigation in international waters and sea lanes for shipping en route to and from all ports and installations of the littoral States that are not parties to the hostilities[.] . . . Condemns the recent attacks on commercial ships en route to and from the ports of Kuwait and Saudi Arabia[.] . . . Demands that such attacks should cease forthwith and that there should be no interference with ships en route to and from States that are not parties to the hostilities.").

[73] ANNOTATED SUPPLEMENT TO THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS (1989), *supra* note 23, at 8-3 n. 11 ("Whether this rule [targeting war-sustaining capabilities] permits attacks on war-sustaining cargo carried in neutral bottoms at sea, such as by Iraq on the tankers carrying oil exported by Iran during the Iran-Iraq war, is not firmly settled.").

[74] ANNOTATED SUPPLEMENT TO THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS (1997), *supra* note 23, at 7-16 to 7-17, 7-17 n.93 ("7.4: Neutral Commerce").

[75] Weinberger, *supra* note 71, at 160 ("As a result of the Iraqi decision in 1984 to carry the war to Iran's oil export operations, Iraq attacked Iranian-flag, Iranian-leased, and other vessels in the Gulf. Iran reacted by attacking non-belligerent shipping indiscriminately."); *cf.* W.J. Fenrick, *Legal Aspects of Targeting in the Law of Naval Warfare*, 1991 CAN. Y.B. OF INT'L L. 238, 275; Walker, *supra* note 41, at 168–70.

IV. LIMITING PRINCIPLES AND OTHER CONSIDERATIONS

Various limiting principles can mitigate concerns that the justification for attacking war-sustaining objects could lead to an excessively expansive interpretation of the law.

Definite Military Advantage

As mentioned at the outset, the definition of military objectives in Article 52(2) includes a second element: the destruction or neutralization of the object must offer a "definite military advantage."[76] That additional element provides a significant, independent constraint. It requires an evaluation of the degree to which the effects of destroying a war-sustaining capability are indeterminate, speculative, or remote.[77] One element in this calculation involves consideration of potential substitution effects. If a source of economic support to a military can be easily substituted by another source, the military advantage gained from the destruction or neutralization of the former is presumably more speculative. The requirement of definite military advantage also suggests that the economic contributions should be confidently traced through a strong causal connection to an enemy's military action. In that regard, toward one end of the spectrum would be the Confederacy's direct trade of cotton for armaments and ISIL's *military control* of petroleum installations. Toward the other end of the spectrum would be a private economic activity which helps generate economic growth or expand the tax base. The second element of Article 52(2) helps eliminate the second type of activity from the category of legitimate military targets due to the remote and speculative causal connection to obtain a military advantage.

War-Sustaining Objects Versus Individuals Engaged in War-Sustaining Function

Accepting that war-sustaining capabilities may be targeted does not necessarily sweep in new categories of individuals as lawful military targets.[78] For example, it is commonplace in the law of war that facilities associated with war-fighting capabilities are legitimate military targets

[76] Additional Protocol I, *supra* note 3, Art. 52(2); LAW OF WAR MANUAL, *supra* note 28, sec. 5.7.3.

[77] ICRC COMMENTARY, *supra* note 8, para. 2024 ("[D]estruction, capture or neutralization must offer a *definite military advantage* in the circumstances ruling at the time. In other words, it is not legitimate to launch an attack which only offers potential or indeterminate advantages."). A compelling dissent by the President of the Eritrea Ethiopia Claims Commission is also instructive:

> As regards the second condition, a reference to the hypothetical or speculative effect of the destruction of the military objective on the conduct of the war is, in my view, not sufficient. A demonstration of the "*definite* military advantage" of the attack is required. The infliction of economic loss or the undermining of morale through the destruction of a civilian object, or the probability that the destruction may bring the decision-makers to the negotiation table, do not make that object a military objective.

Western Front, Aerial Bombardment and Related Claims, *supra* note 55, para. 4 (sep. op. Houtte).

[78] Beth Van Schaack, *Targeting Tankers—and Their Drivers—Under the Law of War (Part 2)*, JUST SECURITY (Dec. 3, 2015), *at* https://www.justsecurity.org/28071/targeting-tankers-drivers-law-war-part-2; Aurel Sari, *Trucker's Hitch: Targeting ISIL Oil Transport Trucks and the Need for Advanced Warnings*, LAWFARE (Dec. 2, 2015), *at* https://www.lawfareblog.com/truckers-hitch-targeting-isil-oil-transport-trucks-and-need-advanced-warnings. *But cf.* LAW OF WAR MANUAL, *supra* note 28, sec. 5.9.3 ("Taking a direct part in hostilities extends beyond merely engaging in combat and also includes certain acts that are an integral part of combat operations or that effectively and substantially contribute to an adversary's ability to conduct or sustain combat operations.").

(e.g., bomb factories) but that civilians who work inside those facilities (e.g., civilians working on the bomb-making assembly line) are not.

The "Great Staple"

The three clearest and primary historic examples in support of targeting war-sustaining revenue streams—cotton (Confederacy), narcotics (Taliban), and petroleum (ISIL)—were very limited cases and involved an export that was a crucial component of an enemy armed forces' capabilities. Professor Sandesh Sivakumaran suggests that the cotton example involves a potential limiting principle:

> The specifics of the Confederates-cotton nexus makes it difficult to extrapolate to other situations, as is evident from the following passage [from the 1870 arbitral tribunal]: "That cotton in the insurrectionary States was peculiarly and eminently a legitimate subject for such destruction, from its relation to the enemy's government, as the *great staple* from which were derived the *principal means* of that government for the carrying on the war . . . ." As such the *Cotton Claims* position cannot support the suggestion that any war-sustaining objects can be attacked.[79]

Similarly, references to the Civil War example in the *Air Force* and *Navy Handbooks* note that cotton provided for importing "almost all Confederate arms and ammunition." In other words, a limiting principle might be that the economic product constitutes a *regular*, *indispensable*, and *principal* source for directly maintaining military action.

Proportionality Analysis

Another important factor in conducting attacks on war-sustaining objects is the principle of proportionality. According to the standard formulation, belligerents must not carry out an attack that "may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated."[80] One question is how proportionality analysis should apply to targeting war-sustaining objects in particular.[81] Does a broader conception of military objectives necessitate a broader conception of collateral civilian damage? For example, if a revenue-generating industry is considered a military objective due to funds distributed to armed forces, should a proportionality analysis include the percentage of funds distributed to nonmilitary purposes (such as running civilian hospitals, schools, etc.)?[82]

[79] SIVAKUMARAN, *supra* note 15, at 344–45 (quoting *Report of Robert S. Hale, US Agent and Counsel, American-British Claims of Commission*, *in* 6 PAPERS RELATING TO THE TREATY OF WASHINGTON 52–53 (1874) (cotton claims)). Carnahan also describes cotton "as the chief export of the South, it was the ultimate source of almost all Confederate weapons and military supplies." Carnahan, *supra* note 36, at 47.

[80] Additional Protocol I, *supra* note 3, Arts. 51(5)(b), 57(2)(a)(iii), 57(2)(b).

[81] L.C. Green, for example, writes that "oil installations of every kind" are legitimate military objectives, but that a proportionality analysis would nevertheless apply. L.C. Green, *Environment and the Law of Conventional Warfare*, 1991 CAN. Y.B. INT'L L. 222, 233–34 ("[T]here would seem to be little doubt that oil installations of every kind are in fact legitimate military objectives open to destruction by any belligerent. Nevertheless, it is now well-established that even military objectives should only be destroyed if the military advantage to be gained so outweighs the collateral civilian damage as to render this proportionate, however severe it may be.").

[82] *Cf.* Letter from Department of Defense General Counsel J. Fred Buzhardt to Senator Edward Kennedy, Chairman of the Subcommittee on Refugees of the Committee on the Judiciary (Sept. 22, 1972), *reprinted in* 67 AJIL

In addition, it might be argued that the military advantage on that side of the proportionality equation is narrower than the military advantage needed to satisfy the definition of a military objective. Recall that our analysis of war-sustaining objects drew support from the understanding that military objectives includes *indirect* contributions to military action—and that the drafters of Additional Protocol I considered and rejected use of the term "direct" to modify "military advantage" in Article 52. However, the term "direct" does appear in the standard formulation of the proportionality test.[83] That is, a conspicuous difference exists in the qualifier used to define military advantage in Article 52(2)—"definite military advantage"—and the qualifier used to define the type of military advantage in the proportionality equation—"concrete and direct military advantage." The *Commentaries* to Additional Protocol I suggest that these textual choices were deliberate: "the words 'concrete and direct' impose stricter conditions on the attacker than those implied by the criteria defining military objectives in Article 52 (General protection of civilian objects), paragraph 2."[84] The Bothe Treatise is similarly unequivocal on this point.[85] Such an understanding would raise additional questions. For example, would an attacker have to refrain from striking *indirect* contributions to military action—such as communications or transportation lines—if one civilian's life were at risk and the definite military advantage was enormous? Have states ever applied such an understanding in practice? A more defensible and productive line of analysis may be found in the standard application of proportionality discussed above.

V. CONCLUSION

The Obama administration's turn to targeting war-sustaining infrastructure in the conflict with ISIL may appear, at first blush, to be something novel. On deeper reflection, however, it is only the most recent episode in a series of such operational practices carried out by the United States and other states in conflicts dating back decades. Those practices involved belligerents' determinations of what objects they could lawfully attack. The historical record also includes states' acknowledgements, express and implicit, that their adversaries could lawfully attack war sustaining objects. The academic literature has yet to catch up to that history. This article is one effort to help close the gap and move us toward addressing more vexing second-order questions about the appropriate limits for targeting war-sustaining objects in current and future armed conflicts.

118, 123–24 (1973) ("The test applicable from the customary international law, restated in The Hague Cultural Property Convention, is that the war making potential of such facilities to a party to the conflict may outweigh their importance to the civilian economy and deny them immunity from attack.").

[83] *See also* LAW OF WAR MANUAL, *supra* note 28, sec. 5.5.2.

[84] ICRC COMMENTARY, *supra* note 8, para. 2218 (Article 57).

[85] BOTHE, PARTSCH & SOLF, *supra* note 7, at 287 (Article 44, paragraph 2.7.2 ("'Concrete' means specific, not general; perceptible to the senses. Its meaning is therefore roughly equivalent to the adjective 'definite' used in the two-pronged test prescribed by Art. 52(2). 'Direct,' on the other hand, means 'without intervening condition or agency.' Taken together the two words of limitation raise the standard set by Art. 52 in those situations where civilians may be affected by the attack."); *id.* at 269 (Article 43, paragraph 2.1.3).