

Distinction, Proportionality, and Precautions in Attacks at Sea in the New Era of the Law of Naval Warfare

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Abstract

China has upset the security balance in East Asia through the development of a long-range strike complex composed of anti-ship ballistic missiles, drones and cruise missiles, and hypersonic missiles that put U.S. naval fleets at risk. Beijing's innovative approach to sea control through the projection of power from land-based fires highlights three important differences between the law applicable to naval warfare and the law of armed conflict (LOAC) as it is implemented on land.¹ These legal distinctions are subtle in law, but they shape concrete choices available to naval commanders and could determine the outcome of war at sea.

First, the standard for what constitutes a military objective in naval warfare is broader than in land warfare. For example, enemy war-sustaining industries and commercial shipping may be captured or even destroyed in conflict at sea, whereas private property on land is generally protected.

Second, in war on land, commanders must take all feasible precautions in attack to consider alternative methods or means to reduce injury to civilians or civilian objects, a high standard. During armed conflict at sea, only reasonable precautions must be taken. This lower bar makes sense because it is less likely that civilians and civilian objects will be caught up in a naval war. The practical result is that war at sea has fewer precautions.

Third, attacks against military objectives in the law of armed conflict require a proportionality analysis, which operates differently at sea than on land. Those who plan, approve, or execute an attack are subject to the rule of proportionality, which prohibits attacks in which the expected collateral damage is excessive relative to the anticipated military advantage to be gained. Since naval warfare is fought from platforms, such as warships, submarines, and military aircraft, the proportionality analysis includes only civilians or civilian objects near the platform but does not include civilians or civilian objects on board.

These legal nuances would govern any naval conflict between China and the United States and could quickly intensify and widen the conflict.

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¹ This Article uses the terms “law of naval warfare” and international law applicable to “war at sea” or “conflict at sea” interchangeably. James Kraska et al., *The Newport Manual on the Law of Naval Warfare*, 101 INT’L L. STUD. i, xiii (2023).

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I. INTRODUCTION

The naval threat China poses in East Asia and the U.S. response have important implications for the law of naval warfare that are not well understood. The nuances of the rules of naval warfare—namely, distinguishing military objectives, precautions in attack, and proportionality—differ tangibly from the rules governing land warfare. This Article focuses on how the rules that apply to armed conflict at sea are different from those that apply in the law of armed conflict (LOAC) on land. These differences are magnified by new and emerging technologies, driving changes in the methods and means of naval warfare, especially long-range precision strike weapons.

Armed conflict at sea unfolds in the global commons, the oceans and superjacent airspace, and outer space. Whereas humans reside on land and congregate in communities, they are occasional and tentative visitors on the oceans, present only while on board a ship, submarine, or aircraft. Warships do not hold ground like land forces. Fortifications are not easily constructed on the water. Because of the special challenges associated with operating at sea, naval warfare historically occurred close to land. Roman galleys, for example, rarely left sight of the shore and most major naval battles occurred near land.

Today, naval technology extends warfare at sea across vast distances. China's ability to project long-range fires from its shores puts U.S. warships and regional airbases at risk. It is a new model for establishing sea control (or sea denial) without a powerful navy. Sea control enables a maritime power to "trade and invade," whereas sea denial prevents the adversary's ability to "trade and invade."² China's strategy has created something of an umbrella of safety for its surface fleet to sortie east against the U.S. and its allies. Obtaining sea control using attacks from the land and projecting fires far out to sea is a shift from traditional water-based naval engagements.

The dynamic naval battlespace has major implications for the application of the law of naval warfare. The ordinary rules of LOAC apply to naval warfare only when ships, submarines, and aircraft land expeditionary forces or direct fires ashore. In contrast, a special subset of rules applies in naval hostilities that occur solely at sea or in the airspace above the oceans.

Since 2001, the U.S. and its allies' experiences on the ground during wars in Iraq and Afghanistan have applied LOAC mainly on land. The prospect of armed conflict at sea in East Asia, however, is reviving the traditional maritime law of naval warfare for the first time in decades. The rules governing naval warfare are adjacent to LOAC, but war at sea is less constrained. Significant elements will look unfamiliar to legal advisers and scholars whose experience is derived from Iraq and Afghanistan.

² IAN SPELLER, UNDERSTANDING NAVAL WARFARE 115–18 (2d ed., 2019).

Part II of this Article describes naval competition between China and the U.S. in the East Asian theater. About a decade ago, it became apparent that China's employment of long-range precision strike capabilities had opened a "range war" in which its land-based missiles and drones might undermine American military dominance, threatening aircraft carrier strike groups and land-based bomber aircraft.³ The U.S. Navy appears to be adopting some of China's playbook in response. Realizing its airbases and warships in the region are vulnerable to China's land-based strike complex, the U.S. is investing in its own land-based missile systems to deter China. For example, the U.S. Army's Typhon mobile, land-based missile is deployed to Luzon, Philippines, and can reach mainland China.⁴

These are not mere tactical moves: regional stability and security in East Asia are at stake. The U.S. is at the center of a hub-and-spoke system of alliances in the region. Washington has bilateral security treaties with Japan, South Korea, the Philippines, Australia, and Thailand and a statutory commitment to Taiwan. China seeks to blunt U.S. naval power with its sophisticated land-based missile complex in the hope of decoupling U.S. allies from American security guarantees. China's strategy is to convince the U.S. and its allies that the U.S. fleet can no longer protect them. Without American power to fill the vacuum, China could exercise regional hegemony.

Part III explores the implications of the operations and technology of the "range war" for rules governing attacks in the law of naval warfare. Attacks are subject to the rules on distinction, precautions, and proportionality. The law of naval warfare centers around platforms, such as warships, submarines, and military aircraft, that are lawful targets.⁵ In contrast, civilian or commercial ships and aircraft are protected from attacks so long as they do not take a direct part in hostilities.⁶

Attacks may be conducted only against military objectives, which must be distinguished from civilians and civilian objects. The economic nature of naval warfare means that the definition of a military objective is expansive and includes war-sustaining trade by sea. Precautions in planning and conducting attacks must be taken to reduce the risk of harm to civilians and other protected persons and objects. When attacks are on land, states must take feasible precautions to reduce the risk of harm to civilians and civilian objects, but when attacking at sea, states

³ Robert Haddick, *The Real U.S.-China War We Should Worry About: A "Range War"*, THE NAT'L INT. (Dec. 12, 2015), <https://perma.cc/8JYB-NS8T>.

⁴ Gabriele Steinhäuser, *The U.S. Missile Launcher that is Enraging China*, WALL ST. J. (Mar. 26, 2025), <https://perma.cc/MMW6-RWE7>.

⁵ SPELLER, *supra* note 2, at 127.

⁶ Kraska et al., *supra* note 1, §§ 3.1, 3.9.3.1. See also 2 LASSA OPPENHEIM INTERNATIONAL LAW 112 § 89 (3d ed. 1921); Declaration concerning the Laws of Naval War, London, art. 46, February 26, 1909, in THE LAWS OF ARMED CONFLICTS, 1111, 1119 (Dietrich Schindler & Jiri Toman eds., 2004).

are required to observe only reasonable precautions to avoid killing or injuring civilians or damaging civilian objects. The standard at sea is more lenient because vessels and aircraft, rather than individuals, are targeted. Belligerents are more likely to injure civilians during attacks on land than they are to injure civilians or civilian ships while attacking a warship or other military objectives at sea.

Precautions might involve selecting alternative targets that would not forfeit military advantage but would result in less harm to civilians or civilian objects. Once precautions are taken, a proposed attack is assessed for its proportionality. The military advantage anticipated to be gained cannot be excessive in relation to the expected loss of civilian life, injury to civilians, or damage to civilian objects incidental to the attack.⁷

Part IV of the Article concludes that the technologies fueling the “range war” amplify the differences in the rules between attacks on land and at sea. New means and methods of naval warfare in Asia underscore legal decision-making and legal policy in armed conflict at sea. Understanding these differences in international law will help the U.S. and allied naval forces prepare for and hopefully deter conflict at sea.

II. THE NAVAL ‘RANGE WAR’ IN THE WESTERN PACIFIC

Technology is changing how naval warfare is conducted and how the law of naval warfare applies to such conflicts. The shift in naval firepower from cannons to aircraft increased the effective range of warships to attack the enemy from dozens to hundreds of miles. New missiles have expanded this range to thousands of miles. Targeting solutions at such an extended range involves the orchestration of a “kill chain”: connecting the shooter to the target through a process of locating a target, communicating that information to the weapon that will execute the attack, launching the attack, and striking the target.⁸ The defender seeks to disrupt any step in the “kill chain.” Like past breakthroughs in naval warfare technology, these advances do not hinge on a single innovation but instead are the result of an integration of new sensors and intelligence, surveillance and reconnaissance, precision guidance, electronic warfare, artificial intelligence, stealth and survivability, and hypersonic glide vehicles (HGVs).⁹

For decades, the U.S. operated a distributed, mobile, and highly lethal “kill chain” designed around land-based aircraft located at forward operating bases and launched from massive forward-deployed aircraft carriers. The newest U.S. aircraft carrier, USS *Gerald Ford* (CVN-78), can operate 90 aircraft, including the

⁷ DEPT’ OF DEFENSE, LAW OF WAR MANUAL § 5.10 (June 2015, updated July 2023).

⁸ CHRISTIAN BROSE, THE KILL CHAIN: DEFENDING AMERICA IN THE FUTURE OF HIGH-TECH WARFARE xix–xxi, 26–27 (2020); SPELLER, *supra* note 2, at 128.

⁹ Karl Lautenschläger, *Technology and the Evolution of Naval Warfare*, 8 INT’L SEC. 3, 4 (1983).

Boeing F/A-18E/F Super Hornet. The Super Hornet has a combat radius greater than 570 nautical miles.¹⁰ The F-35A/C has an effective combat range of about 600 nautical miles.¹¹ While these ranges can be extended through U.S. Air Force aerial tanking, they pale in comparison to China's missile ranges. As a mobile platform, the carrier can transit freely throughout the oceans, the world's largest domain of maneuver, while launching and recovering dozens of strike-fighter aircraft that roam the skies. These aircraft carry a variety of weapons, including the Harpoon, an anti-ship cruise missile with a range of 125 km.¹² The combination of mobile and maneuverable aircraft carriers with attack aircraft carrying strike packages protected by a screen of guided missile destroyers has dominated the maritime battlespace for decades. However, the utility of this force in a future war in East Asia is now called into question, as the threat from land-based missiles means traditional surface warships may be less survivable operating forward.¹³ At the same time, airfields and air bases in the region that can host U.S. military aircraft are also vulnerable to attack by Chinese missiles.¹⁴

To counter American forces, China has developed an anti-access/area denial (A2/AD) strategy using land-based missiles to keep U.S. land-based and carrier-based aircraft beyond the range of their ability to influence a conflict near China, such as a Taiwan scenario.¹⁵ The limited combat radius of ship-based aircraft is the Achilles heel of the traditional American strategy.¹⁶ If American bases in Japan, Guam, and other Pacific territories can be destroyed, then the threat of U.S. land-based aircraft also would be eliminated.¹⁷

Over the past decade, China has successfully revolutionized the maritime battlespace with a shore-based strike complex comprised of land-based anti-ship

¹⁰ Maya Carlin, *The Navy's F-35 Has an Embarrassing Flaw It Would Rather Not Admit*, THE NAT'L INT. (Oct. 20, 2024), <https://perma.cc/C22S-HF7K>; SPELLER, *supra* note 2, at 129.

¹¹ Carlin, *supra* note 10.

¹² SPELLER, *supra* note 2, at 129.

¹³ BRYAN CLARK, ET AL., REGAINING THE HIGH GROUND AT SEA: TRANSFORMING THE U.S. NAVY'S CARRIER AIR WING FOR GREAT POWER COMPETITION 13 (Center for Security and Budgetary Assessments 2009); CSBA's *Clark on Future of Aircraft Carriers in Contested Environments*, DEF. & AEROSPACE REP. (Dec. 2018), <https://perma.cc/U3ST-MDX2>; BROSE, *supra* note 8, at xxii.

¹⁴ KELLY A. GRIECO ET AL., CRATERING EFFECTS: CHINESE MISSILE THREATS TO US AIR BASES IN THE INDO-PACIFIC 25–26 (Dec. 2024).

¹⁵ SAM J. TANGREDI, ANTI-ACCESS WARFARE: COUNTERING A2/AD STRATEGIES 32–74 (2013); AARON L. FRIEDBERG, BEYOND AIR-SEA BATTLE: THE DEBATE OVER US MILITARY STRATEGY IN ASIA 45, 64 (2014).

¹⁶ KELLY A. GRIECO, ET AL., *supra* note 14, at 25–26; RONALD O'ROURKE, CHINA NAVAL MODERNIZATION: IMPLICATIONS FOR U.S. NAVY CAPABILITIES—BACKGROUND AND ISSUES FOR CONGRESS 18–23 (2024); KELLEY M. SAYLER, HYPERSONIC WEAPONS: BACKGROUND AND ISSUES FOR CONGRESS 17–20 (2024).

¹⁷ Gabriel Honrada, *China's KD-21 Missile Puts US Carriers and Bases at Range*, ASIA TIMES (Apr. 4, 2025), <https://perma.cc/B38X-24N3>.

ballistic missiles (ASBM), anti-ship cruise missiles (ASCM), and drones and HGVs that can target the network of U.S. airbases and warships thousands of miles away.¹⁸ These new weapons are the centerpiece of Beijing's novel theater strategy to project decisive naval power not from ships, aircraft, and submarines, but from land. This new approach places at risk traditional U.S. airbases and surface fleets and aircraft carrier strike groups that have dominated the oceans since World War II.¹⁹ China's CJ-10 Land-Attack Cruise Missile (LACM), for example, has an estimated range of over 1,500 km.²⁰ The DF-21D ("Carrier Killer") ASBM also has a range of about 1,500 km. The DF-21D can travel at hypersonic speeds, making interception difficult for U.S. missile defense systems.²¹ The missile is equipped with terminal guidance systems, such as radar and infrared seekers, to locate and target moving ships. The aggressive trajectory, reentry angle, and speed make the DF-21D a formidable threat to U.S. naval missile defenses like the Aegis system.

China also operates the DF-26 (so-called "Guam Killer"), which has a range of 4,000 km, well beyond the range of U.S. combat aircraft, forcing them to refuel mid-air to reach their targets.²² This theater range increases the missile's versatility and ability to strike both U.S. forward bases capable of operating stealth bombers, as well as fleet aviation launched from aircraft carriers.²³ Land bases in Japan and as far as Guam are at risk, and an anti-ship variant makes aircraft carriers at sea vulnerable.²⁴ The DF-26 is the most significant weapon in forty years. The ability to initiate strikes from China's mainland from mobile launchers complicates U.S. efforts to neutralize the DF-21 and DF-26. The combined ranges of these systems allow China to conduct precision strikes across large parts of the Western Pacific, including key chokepoints like the South China Sea, Taiwan Strait, and Luzon Strait. In a conflict scenario, China might launch preemptive strikes to disrupt U.S. operations before reinforcements arrive in the region. China's monopoly on theater (medium-range or intermediate-range) missiles increases the risk of a decapitating first strike.

¹⁸ David Lague & Benjamin Kang Lim, *Special Report: New missile gap leaves U.S. scrambling to counter China*, REUTERS (Apr. 25, 2019), <https://perma.cc/F962-7C8U>.

¹⁹ SPELLER, *supra* note 2, at 151–56.

²⁰ DEP'T OF DEF., MILITARY AND SECURITY DEVELOPMENTS INVOLVING THE PEOPLE'S REPUBLIC OF CHINA 69 (2023).

²¹ Brandon J. Weichert, *China's DF-21D Missile Was Built to 'Massacre' Navy Aircraft Carriers*, THE NAT'L INT. (July 24, 2024), <https://perma.cc/K3FX-N2U3>.

²² Peter Suci, *DF-21D and DF-26B: China's Missiles Built to Sink Navy Aircraft Carriers*, THE NAT'L INT. (Aug. 15, 2024), <https://perma.cc/5R35-WLD3>.

²³ Peter Suci, *The Air Force Is Training B-2 Stealth Bombers Right in China's Backyard*, THE NAT'L INT. (June 20, 2024), <https://perma.cc/88F7-2HKQ>.

²⁴ Maya Carlin, *DF-26: The Missile That Could Sink a U.S. Navy Aircraft Carrier*, THE NAT'L INT. (Feb. 3, 2024), <https://perma.cc/ACX7-XEXE>.

China's missile arsenal could also strike U.S. logistical hubs in the region, like Kadena airbase and the U.S. fleet concentrations at Yokosuka and Sasebo, Japan.²⁵ Yokosuka is home to the forward deployed USS *George Washington* (CVN 73), while Sasebo contains the amphibious force of the U.S. Seventh Fleet, whose mission is to ferry Marines from Okinawa in response to regional crises. As soon as a hypothetical war starts, U.S. "aircraft carriers in the region would immediately turn east and sail away from China, intent on getting more than a thousand miles away from the opponent's long-range anti-ship missiles."²⁶ However, operating from that distance is challenging. None of the U.S. attack aircraft embarked on the carrier would be capable of reaching their assigned targets in or near China without aerial refueling. This situation creates the same dilemma for the U.S. Navy as it does for the Air Force: attack aircraft are pushed so far east that they can only reach their targets in the South China Sea or East China Sea by relying on a large, slow, refueling aircraft.

China's missile "kill chain" utilizes a robust surveillance and targeting network with over-the-horizon radars, drones, aircraft, and undersea sensors to detect, track, and vector strikes against stationary and moving targets like U.S. warships. China has so many missiles and types of weapons that it might employ saturation attacks to overwhelm U.S. defenses. As the U.S. lacks a similar inventory of land-based missiles, the only U.S. response would be to resort to intercontinental ballistic missiles, so it is stuck playing defense. Even if U.S. anti-missile interceptors destroy the incoming Chinese warheads, the U.S. is on the wrong side of cost asymmetry in such engagements. The cost of deploying Aegis interceptors and other defenses to counter each missile is much higher than China's cost of producing the missiles. A ground-based interceptor, for example, can cost as much as \$70 to \$110 million per round.²⁷

The U.S. is working to balance the overmatch in precision, long-range strike capabilities by producing and deploying its own missiles in the territory of treaty allies, like the Philippines or Japan.²⁸ This approach is still being refined but will potentially include a mix of theater-range missiles launched from ships and ashore,

²⁵ BROSE, *supra* note 8, at xiv; DEP'T OF DEF., *supra* note 20, at 66–69; O'ROURKE, *supra* note 16, at 20–23.

²⁶ BROSE, *supra* note 8, at xiv.

²⁷ *Missile Interceptors by Cost*, MISSILE DEFENSE ADVOCACY ALLIANCE (Feb. 2024), <https://perma.cc/Y36F-QMZN>; see also Nancy A. Youssef & Gordon Lubold, *Pentagon Runs Low on Air-Defense Missiles as Demand Surges*, WALL ST. J. (Oct. 29, 2024), <https://perma.cc/MRT9-A8QZ>.

²⁸ Karen Lema & Poppy Mcpherson, *Exclusive: US keeps missile system in Philippines as China tensions rise*, REUTERS (Sept. 20, 2024), <https://perma.cc/WWF3-4GK3>; Richard Javad Heydarian, *Typhon Missile: A Game Changer in Philippine-China-US Strategic Triangle?*, CHINAUSFOCUS (Oct. 18, 2024), <https://perma.cc/7UE9-5U9Z>; Micah McCartney, *America's Allies Receive Ominous Warnings From China*, NEWSWEEK (Sept. 27, 2024), <https://perma.cc/5ABN-YCCX>.

although deployment of missiles in sufficient numbers to offer deterrence value is likely years away.²⁹

American stealth warships and submarines may be able to get within range of China by avoiding detection and operating inside the A2/AD zone to disrupt Chinese targeting networks.³⁰ The U.S. Navy is also trying to disperse or disaggregate its forces across more platforms, including autonomous warships, to reduce the effectiveness of any Chinese missile salvos.³¹ At the same time, the U.S. Air Force is working to refurbish numerous small bases in the mid-Pacific like Tinian, to station military aircraft in a “scatter and survive” strategy.³² The U.S. used the four runways at Tinian to launch bomber aircraft against Japan during World War II, and the airfields are being repurposed in the event of conflict with China.

The challenge of the “range war” in East Asia is caused by technological changes in the methods and means of naval war, in which land-based long-range, precision strike missiles have upended traditional models of sea control (or sea denial). These changes illustrate nuances in the law of naval warfare that differ from rules applicable to war on land. While these differences may appear subtle, they have significant implications for how the U.S. and its allies conduct armed conflict at sea.

III. RULES GOVERNING HOSTILITIES IN NAVAL WARFARE

The general rules for attacks during armed conflict are, for the most part, contained in Additional Protocol I (AP I) of the Geneva Conventions.³³ Section 1 of Part IV on the conduct of hostilities encompasses articles 48 to 67, and this section of the treaty reflects the rules that apply to distinction, precautions in attack, and proportionality. By the terms of AP I these rules have no direct application to the law of naval warfare fought at sea or in the air only, although

²⁹ JACOB COHN, ET AL., LEVELING THE PLAYING FIELD: REINTRODUCING U.S. THEATER-RANGE MISSILES IN A POST-INF WORLD 34–38 (2019).

³⁰ Hal Brands & Zack Cooper, *Dilemmas of Deterrence: The United States’ Smart New Strategy Has Six Daunting Trade-offs*, in THE MARSHALL PAPERS 2 (2024), <https://perma.cc/8XN5-X74L>.

³¹ Sean Carberry, *‘Disaggregation’ Called the Future of Naval Warfare*, NATIONAL DEFENSE (Jan. 16, 2024), <https://perma.cc/PE29-NES5>.

³² Niharika Mandhana, Mike Cherney & Camille Bressange, *Scatter and Survive: Inside a U.S. Military Shift to Deny China ‘Big, Juicy’ Targets*, WALL ST. J. (Oct. 20, 2024), <https://perma.cc/VQ66-CZPS>; see also Niharika Mandhana, *Why the U.S. Is Reviving an Airfield Used in the WWII Atomic Bombings*, WALL ST. J. (Oct. 20, 2024), <https://perma.cc/YZ6H-RYF7>.

³³ Protocol (I) Additional to the Geneva Conventions of August 12, 1949, and Relating to the Protection of Victims of International Armed Conflicts, Jun. 8, 1977, 1125 U.N.T.S. 3 [hereinafter AP I]. The United States is not party to AP I but considers much of it to reflect customary international law. William J. Matheson, *Remarks in Session One: The United States Position on the Relation of Customary International Law to the 1977 Protocols Additional to the 1949 Geneva Conventions*, 2 AMERICAN UNIVERSITY J. OF INT’L LAW AND POLICY 419 (1987).

they do apply to naval operations, which may affect the civilian population on land.³⁴ Whether the rules reflect customary law or are altogether inapplicable to armed conflict at sea or in the air, it is clear that the concepts of distinction, precautions in attack, and proportionality in Section 1 of Part IV of AP I do not apply to naval warfare in the same way as they do in warfare that is conducted on land.

A. Distinction

Belligerents have a basic duty to distinguish civilians and civilian objects, which are protected, from combatants and military objectives, which may be targeted for attack.³⁵ The term “attack” means acts of violence against the enemy, whether in offense or in defense.³⁶ Neither civilian populations nor individual civilians may be the object of attack.³⁷ AP I states that attacks must be strictly limited to military objectives.³⁸ Generally, military objectives are those objects which, by their “nature, location, purpose or use, make an effective contribution to military action,” and whose “total or partial destruction, capture or neutralization offers a definite military advantage.”³⁹ This definition in AP I art. 52(2) does not apply as a matter of law under the terms of the treaty to naval warfare conducted only at sea or in the air above the sea.⁴⁰

The general rules on distinction, military objectives, and precautions in attack apply to any “land, air or sea warfare which may affect the civilian population, individual civilians or civilian objects on land.”⁴¹ The rule also applies to attacks from the sea or from the air against objectives on land, such as a naval bombardment of fortresses ashore.⁴² The rule does not “otherwise affect the rules of international law applicable to armed conflict at sea or in the air.”⁴³ Thus, by the construction of the text of AP I, the general rules embodied in Section 1 of the treaty defining a lawful “military objective” do not apply to engagements at sea involving air-to-air attacks (a military aircraft attacking an aircraft), air-to-sea attacks (a military aircraft attacking a warship), sea-to-air attacks (a warship attacking a military aircraft), or sea-to-sea attacks (a warship or submarine

³⁴ AP I, art. 49(3).

³⁵ *Id.* art. 48.

³⁶ *Id.* art. 49(1).

³⁷ *Id.* art. 51(2).

³⁸ *Id.* art. 52(2).

³⁹ *Id.* art. 52(2).

⁴⁰ See AP I, *supra* note 33, art. 49(3), excluding Section 1 (articles 48 to 67) from purely naval and air engagements.

⁴¹ *Id.* art. 49(3).

⁴² *Id.* art. 49(3).

⁴³ *Id.* art. 49(3); see also Kraska et al., *supra* note 1, 8.5 and 8.5.1.

attacking another warship or submarine). This means that the traditional (and narrow) definition of a “military objective” that we have become accustomed to applying during land wars is not applicable to conflict at sea.

The definition of a “military objective” in AP I is “objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.”⁴⁴ This text is in Article 52(2), located in Section 1 of Part IV of AP I, which does not apply to air and sea attacks that do not affect the land. Still, states party to AP I may choose to apply the same rules to sea and air attacks as a matter of policy, but AP I does not require them to do so. Instead, states party to AP I may apply a different and broader understanding of what constitutes a “military objective” in naval warfare. For this purpose, the U.S. experience may be helpful. The U.S. is not a party to AP I. It defines “military objectives” as those that, by their nature, location, purpose, or use, effectively contribute to the “war-fighting or war-sustaining capability” of the enemy and “whose total or partial destruction, capture or neutralization offers a definite military advantage.”⁴⁵ Although the U.S. applies this broader “war sustaining” definition to all attacks (land and sea), it is especially apt for warfare at sea and may be adopted even by AP I states for naval conflicts since, again, AP I Section 1 of Part IV (including Article 52(2)) does not apply to attacks at sea in accordance with Article 49(3).

The San Remo Manual on International Law Applicable to Armed Conflicts at Sea erroneously adopts the narrow definition of “military objectives” in AP I art. 52(2) to naval and air warfare, despite Article 49(3), which states that the definition does not apply in such situations.⁴⁶ In doing so, the San Remo Manual reflects a progressive approach.⁴⁷ The Newport Manual on the Law of Naval Warfare suggests states can interpret military objectives more broadly, to include targeting of objects that make an effective contribution to the war-fighting or war-sustaining capability of an opposing force.⁴⁸ Many states accept this broader view of what constitutes a “military objective” during armed conflict at sea since only the law of naval warfare allows for economic warfare.⁴⁹ During the Iran-Iraq Tanker War, for example, both belligerents conducted attacks on war-sustaining

⁴⁴ AP I, *supra* note 33, art. 52(2).

⁴⁵ 10 USC § 950p.

⁴⁶ SAN REMO MANUAL ON INTERNATIONAL LAW APPLICABLE TO ARMED CONFLICTS AT SEA, r. 39, 40, 42(b), 46 (Louise Doswald-Beck ed., 1995) [hereinafter SAN REMO MANUAL].

⁴⁷ Louise Doswald-Beck, *The San Remo Manual on International Law Applicable to Armed Conflicts at Sea*, 89 AJIL 192, 200 (1995) (providing background of San Remo Manual and rejection of war-sustaining concept).

⁴⁸ Kraska et al., *supra* note 1, § 8.9.2.

⁴⁹ For example, Japan and the U.S. have not adopted the narrow interpretation.

shipping, while the United Kingdom and France boarded ships carrying war-sustaining supplies to the belligerents as a measure of self-defense.⁵⁰ In the current conflict in the Black Sea, Russia and Ukraine (both parties to AP I) have targeted war-sustaining infrastructure and shipping of the other belligerent.⁵¹

B. Precautions in Attack

The dynamic “Range War” described in Part II is quickly turning into a hypersonic naval theater. China is shifting from ASBMs to HGVs to defeat U.S. anti-ballistic missile capabilities.⁵² The change in strategy has implications for how precautions in attack apply in armed conflict at sea.⁵³ Commanders have an obligation to take precautions in planning and conducting attacks to reduce the risk to civilians and protected objects.⁵⁴ Nuances in the law of naval warfare also appear to reduce the legal standard for commanders to take precautions in attacks at sea compared with warfare on land. At sea, “reasonable” precautions must be taken, whereas on land, “feasible” precautions are required.⁵⁵ Hypersonic weapons compress the decision-making time for commanders to fulfill these legal obligations.⁵⁶ China’s DF-17, with a 1,200-mile range, carries a highly maneuverable HGV.⁵⁷ The DF-17 appears capable of carrying either a conventional or nuclear warhead.⁵⁸ Some observers believe China may be able to outfit existing theater missile systems like the DF-21 and DF-26 with either conventional or nuclear HGVs.⁵⁹

⁵⁰ George K. Walker, *Tanker War: Law and Policy, 1980–1988*, 74 INT’L L. STUD. 1, 144–50 (2000).

⁵¹ IMO Doc. C/128/INF.5, Nov. 17, 2022, Update on the Black Sea Grain Initiative (Note by the IMO Secretariat); IMO Doc. MSC 106/INF.11 Aug. 29, 2022, Update on the Black Sea Grain Initiative (Note by the Secretariat).

⁵² TONG ZHAO, CONVENTIONAL CHALLENGES TO STRATEGIC STABILITY: CHINESE PERCEPTIONS OF HYPERSONIC TECHNOLOGY AND THE SECURITY DILEMMA 6–8 (2018), <https://perma.cc/2C2K-UQFT>.

⁵³ KELLEY M. SAYLER, HYPERSONIC WEAPONS: BACKGROUND AND ISSUES FOR CONGRESS 17–20 (2024).

⁵⁴ DEP’T OF DEFENSE, LAW OF WAR MANUAL §5.2.3.3 (2016, 2023). Note: there is no requirement to execute an alternative plan of attack if the likely military advantage drops.

⁵⁵ AP I, *supra* note 33, art. 57(2)(a)(i) (feasible); 57(4) (reasonable).

⁵⁶ Deborah Lee James, Ryan McCarthy & Michael E. White, *How the nation can make yielding hypersonic capabilities a national priority*, SPACENEWS (Mar. 6, 2025), <https://perma.cc/6A7Y-3VEX> (“Commanders have little time to react, the missiles themselves are highly survivable, and they have a long range to ensure survivability of their launch platform.”).

⁵⁷ *Missiles of the World, China, DF-17*, MISSILETHREAT CSIS MISSILE DEFENSE PROJECT (Apr. 23, 2024), <https://perma.cc/Z3KN-L64C>.

⁵⁸ EVAN BRADEN MONTGOMERY & TOSHI YOSHIHARA, SPEEDING TOWARD INSTABILITY: HYPERSONIC WEAPONS AND THE RISKS OF NUCLEAR USE 8–9 (2023).

⁵⁹ *See* U.S. DEPARTMENT OF DEFENSE, MILITARY AND SECURITY DEVELOPMENTS INVOLVING THE PEOPLE’S REPUBLIC OF CHINA 64–65 (2024).

Whereas ballistic missiles follow a predictable trajectory and, therefore, are more susceptible to interception, HGVs are maneuverable as they skip along the upper atmosphere at speeds of more than Mach 5.⁶⁰ The speed and maneuverability of HGVs make it difficult for defenders to determine their intended target.⁶¹ The high speed also compels the defender to make decisions with minimal warning and imperfect information. An interceptor “kill vehicle” trying to shoot down an HGV requires exquisite precision In-Flight Target Update (IFTU) location data.

Two provisions in Article 57 of AP I calibrate considerations for precautions in attacks based on whether the fires are directed against targets at sea or on land. Commanders shall “refrain from deciding to launch any attack which 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.”⁶² Furthermore, “an attack shall be canceled or suspended if it becomes apparent that the objective is not a military one or is subject to special protection or that the attack 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.”⁶³

Generally, during attacks on land, states must take all feasible precautions to avoid striking civilians or civilian objects.⁶⁴ In naval conflict at sea, however, reasonable precautions apply to ship-to-ship, air-to-ship, ship-to-air, and air-to-air engagements.⁶⁵ The reversion to feasible precautions must be observed if naval forces are striking targets on land.⁶⁶ The San Remo Manual incorporates the stricter rule of feasible (not reasonable) precautions in sea-to-sea, air-to-sea, and air-to-air engagements, even though the text of AP I explicitly applies “reasonable” precautions to attacks at sea unless they are directed at targets on

⁶⁰ Tony Bruno, *Hypersonic Missiles are Just Misunderstood*, MEDIUM (May 16, 2023), <https://perma.cc/3K9T-WV7F>.

⁶¹ MONTGOMERY & YOSHIHARA, *supra* note 58, at 12.

⁶² AP I, *supra* note 34, art. 57(2)(a)(iii).

⁶³ *Id.* art. 57(2)(b).

⁶⁴ *Id.* art. 57(2). The U.S. position is that states must take “feasible precautions” rather than “all feasible precautions.” DEP’T OF DEFENSE, *supra* note 54, § 5.11.

⁶⁵ *Id.* art. 57(4).

⁶⁶ Hague Convention on the Protection of Cultural Property in the Event of Armed Conflict, art. 5, May 14, 1954, 249 U.N.T.S. 233 (“In bombardments by naval forces all the necessary measures must be taken by the commander to spare as far as possible sacred edifices, buildings used for artistic, scientific, or charitable purposes, historic monuments, hospitals, and places where the sick or wounded are collected, on the understanding that they are not used at the same time for military purposes.”).

land.⁶⁷ The Newport Manual on the Law of Naval Warfare incorporates the more lenient “reasonable” standard, reflecting the rule in AP I.⁶⁸

There is an open question of whether there is a meaningful difference between “feasible” precautions and “reasonable” precautions. Do these terms highlight a distinction without a difference? The U.S. has claimed that feasible precautions are, in fact, reasonable precautions applied consistent with mission accomplishment and allowable risk to attacking forces.⁶⁹ There is some uncertainty surrounding the standard of precaution, with reference to “reasonable,” “practicable,”⁷⁰ “due,”⁷¹ “necessary,”⁷² and “feasible” precautions. Some might suggest that the terms feasible precautions to be taken on land and “reasonable” precautions at sea are the same thing,⁷³ but they are not. The ICRC Commentary on Additional Protocol I notes, “‘all reasonable precautions’ must be taken,” which it considers “undoubtedly slightly different from and a little less far-reaching than the expression to ‘take all feasible precautions’ As the nuance is tenuous, the purpose of the provision appears to be to reaffirm the rules that exist to protect civilians in such situations.”⁷⁴

The rule on precautions means that attacks at sea must exercise “reasonable” precautions to minimize incidental or collateral injury to the civilian population, consistent with mission accomplishment.⁷⁵ The U.S. practice recognizes that the

⁶⁷ SAN REMO MANUAL, *supra* note 46, at r. 46.

⁶⁸ Kraska et al., *supra* note 1, § 8.9.2.

⁶⁹ U.S. Comments on the International Committee of the Red Cross’s Memorandum on the Applicability of International Humanitarian Law in the Gulf Region, in DIGEST OF UNITED STATES PRACTICE IN INTERNATIONAL LAW 1991-1999, 2057, 2063 (1991).

⁷⁰ Martin P. Dupuis et al., *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’Y 419, 426–27 (1987) (“We support the principle that all practicable precautions, taking into account military and humanitarian considerations, be taken in the conduct of military operations to minimize incidental death, injury, and damage to civilians and civilian objects . . .”).

⁷¹ U.S. Statement on Consent to Be Bound by the CCW Amended Mines Protocol, May 24, 1999, 2065 U.N.T.S. 128, 129 (“The United States reserves the right to use other devices (as defined in Article 2(5) of the Amended Mines Protocol) to destroy any stock of food or drink that is judged likely to be used by an enemy military force, if due precautions are taken for the safety of the civilian population.”).

⁷² U.N. General Assembly Resolution 2675, Basic Principles for the Protection of Civilian Populations in Armed Conflict, U.N. Doc. A/8028 (Dec. 9, 1970) (“In the conduct of military operations, every effort should be made to spare civilian populations from the ravages of war, and all necessary precautions should be taken to avoid injury, loss or damage to civilian populations.”).

⁷³ U.S. Comments on the International Committee of the Red Cross’s Memorandum on the Applicability of International Humanitarian Law in the Gulf Region, *supra* note 69.

⁷⁴ ICRC AP I Commentary, ¶ 2230.

⁷⁵ U.S. Comments on the International Committee of the Red Cross’s Memorandum on the Applicability of International Humanitarian Law in the Gulf Region, *supra* note 69.

duty to take precautions in attack goes hand in hand with the prohibition against attacks that are expected to cause excessive incidental harm.⁷⁶

Reasonable precautions at sea might include such tactics as: (a) issuing warnings through radio communication or visual signals before engaging a suspicious vessel; (b) diverting suspect vessels away from conflict areas through the establishment of maritime zones or when setting a naval blockade; (c) conducting boarding operations before escalating to the use of force against a suspected ship; or (d) postponing or aborting an attack if civilian small craft or neutral vessels unexpectedly enter the engagement zone. The practicability of these precautions depends on the operational circumstances, such as the availability of information, time constraints, and the nature of the naval engagement. The fluid and dynamic environment of naval warfare sometimes limits the ability to give advance warnings or conduct continuous reassessments.

C. Proportionality

After the precautions analysis, attacks are still subject to a proportionality test. The expected collateral death, injury, or physical damage of attacks to civilians or civilian objects must be proportional to the anticipated military advantage expected to be gained. An attack is unlawful if it is 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.⁷⁷

Considerations of proportionality in naval targeting are different than in LOAC as it applies to land operations. The proportionality test is captured in Article 51 of AP I, which, being in Section 1 of the treaty, does not on its face apply to naval warfare at sea. Three caveats are in order. First, the classic proportionality test in AP I does apply as a matter of treaty law to States party engaged in “naval bombardment of land targets and to naval operations in the close proximity to the coastline that may inflict harm to protected persons and objects on land.”⁷⁸ Second, the proportionality formula in AP I may be regarded as reflective of customary international law, dictating that attacks on land and at sea must not be disproportionate. Third, naval targeting of an enemy warship naturally has a lower risk of collateral damage to nearby civilian objects (e.g., fishing vessels) than attacks in land warfare (e.g., schools and hospitals).

⁷⁶ THE COMMANDER’S HANDBOOK ON THE LAW OF NAVAL OPERATIONS § 8.3.1 (2022) (“Naval commanders must take all reasonable precautions, taking into account military and humanitarian considerations, to keep civilian casualties and damage to the minimum consistent with mission accomplishment and the security of the force.”) [hereinafter COMMANDER’S HANDBOOK].

⁷⁷ AP I, *supra* note 33, art. 51(5)(b).

⁷⁸ Kraska et al., *supra* note 1, § 1.2.1.

This difference is rooted in the nature of the operational environment of naval warfare, where engagements typically occur on the water, in which vessels are generally widely distributed, minimizing the potential impact on civilian populations and infrastructure. To illustrate this point, The Newport Manual on the Law of Naval Warfare cites an incident during the 1973 Arab Israeli War in which Israeli forces engaged Syrian missile boats and sank two merchant vessels anchored at the Latakia port anchorage.⁷⁹ The civilian ships were in close physical proximity to the Syrian missile boats and therefore subject to proportionality calculations. Furthermore, because naval warfare is platform centric rather than focused on individuals, enemy warships are lawful targets. The individual crew on board the warship are also lawful targets, but factually, the ship, not the crew, is targeted. Any protected persons aboard the ship are not targetable but still not subject to the proportionality analysis when attacking the ship.⁸⁰

The U.S. tri-service Commander's Handbook on the Law of Naval Operations states that it is not unlawful to cause incidental injury to civilians or collateral damage to civilian objects during an attack upon a legitimate military objective.⁸¹ In each attack, however, the "commander must determine whether the anticipated incidental injuries and collateral damage would be excessive, on the basis of an honest and reasonable estimate of the facts available to the commander at the time." The commander makes this decision in light of all the facts known or reasonably available to them at the time, including the need to effectively prosecute the war effort, conserve resources, and complete the mission successfully. Alternative methods (tactics) and means (weapons) to reduce civilian casualties and damage should be considered if they are reasonably available.⁸²

When a warship or military aircraft at sea is targeted, the collateral damage is determined by the damage to nearby civilian ships and aircraft rather than individual civilians or other protected individuals who happen to be on board a warship or military aircraft under attack. For example, a military survey ship like the USNS *Impeccable* (T-AGOS-23) ocean surveillance vessel is clearly a military objective during an armed conflict because it is a naval auxiliary, even though it is

⁷⁹ *Id.* § 8.8.1. On the other hand, if the ships were sunk inadvertently, there is no proportionality issue because the damage was not expected.

⁸⁰ "[N]on-combatants, as, for instance, stokers, surgeons, chaplains, members of the hospital staff, and the like, who do not take part in the fighting, may not be attacked directly and killed or wounded. But they are exposed to all injuries indirectly resulting from attacks on, or by, their vessels; and they may certainly be made prisoners of war..." 2 LASSA OPPENHEIM, INTERNATIONAL LAW: A TREATISE 251 § 202 (3d ed., 1921).

⁸¹ COMMANDER'S HANDBOOK, *supra* note 76, § 8.3.1.

⁸¹ *Newport Manual*, *supra* note 1, § 8.9.2.

⁸² COMMANDER'S HANDBOOK, *supra* note 76, § 8.3.1. *See also* Kraska et al., *supra* note 1, § 8.9.2.

⁸² Kraska et al., *supra* note 1, § 8.9.2.

manned primarily by a civilian crew and under the authority of a civilian master.⁸³ If those individuals are harmed or killed in an attack, they are not part of the proportionality analysis because the target is the ship, not the individuals.

During World War II, the Germany Navy requisitioned the Wilhelm Gustloff as a hospital ship and later as a floating barracks for naval personnel in Gotenhafen in occupied Poland (Gdynia). In 1945, the vessel was converted into an armed troop transport and was used during Operation Hannibal to evacuate German forces and civilians from East Prussia and the occupied Baltic States. On January 30, 1945, a Soviet submarine S-3, under the command of Captain Alexander Marinesko, struck the ship with three torpedoes. The vessel sank in an hour. The incident was the worst maritime disaster in history. Among nearly 10,000 people on board, including between 4,000 and 5,000 children, only 1,200 survived. More than 9,000 lives were lost.⁸⁴ Despite the horrific loss of life, the presence on board of about 1,000 naval personnel and a couple of quad anti-aircraft guns made the ship a lawful military target. Captain Marinesko was never tried for violating the law of naval warfare.⁸⁵

Similarly, the *Lusitania* was sunk by a German U-boat during World War I. Germany provided the following justification for sinking without warning the civilian passenger liner:

- (a) the ship was one of the largest and fastest English commerce steamers, constructed with government funds as an auxiliary cruiser and expressly included in the navy list published by the British Admiralty;
- (b) practically all valuable English merchant vessels had been provided with guns, ammunition, and other weapons, and reinforced with crews specially practiced in manning guns;
- (c) the *Lusitania* undoubtedly had guns on board, which were mounted under decks and masked;
- (d) the British Admiralty had advised the British merchant marine by secret instruction of February 1915 to seek protection behind neutral flags and markings, and to attack German submarines by ramming them;
- (e) the *Lusitania*, on earlier occasions (including her last voyage), had Canadian troops and munitions on board, including no less than 5,400 cases of ammunition, and the German government acted in self-defense by destroying ammunition destined for the enemy;

⁸³ Brad Lendon, *Beijing has a navy it doesn't even admit exists, experts say. And it's swarming parts of the South China Sea*, CNN.COM (Apr. 13, 2021), <https://perma.cc/3F9K-DZTG>.

⁸⁴ SAM WILLIS, SHIPWRECK: A HISTORY OF DISASTERS AT SEA, 112, 149–53 (2008). See also *The Sinking of the Wilhelm Gustloff*, THE NATIONAL WW II MUSEUM (Jan. 30, 2020), <https://perma.cc/T4BW-SNSP>.

⁸⁵ H.R. 103, 85th Cong. 14974 (1957).

- (f) the English steamship company was aware of the dangers to which passengers on board the *Lusitania* were exposed under these circumstances; and
- (g) according to the report of the submarine commander concerned, which was confirmed by all other reports, there was no doubt that the rapid sinking of the *Lusitania* was primarily due to the explosion of the cargo of ammunition caused by the torpedo.⁸⁶

These cases demonstrate that at sea, warships and vessels aiding the military effort of the enemy constitute legitimate military objectives and may be targeted without any consideration of proportionality to civilians on board the ship who may be injured or killed in the attack.

Paragraph 46(d) of the San Remo Manual provides that “an attack shall not be launched if it may be expected to cause collateral casualties or damage which would be excessive in relation to the concrete and direct military advantage anticipated from the attack as a whole.”⁸⁷ The terms ‘collateral casualties’ and ‘collateral damage’ are defined in para. 13(c) SRM as “the loss of life of, or injury to civilians or other protected persons, and damage to or the destruction of the natural environment or objects that are not in themselves military objectives.” The SRM’s Explanation of para. 46(d) merely refers to the sinking of the *Lusitania* in 1915.⁸⁸

The drafting history of the SRM’s rules on targeting in naval warfare reveals that, initially, the Introductory Report⁸⁹ and twenty of the twenty-one comments provided by the experts focused on the definition of military objectives and the circumstances rendering merchant vessels liable to attack rather than on considerations of proportionality.⁹⁰ The only comment addressing the issue of collateral damage was submitted by Louise Doswald-Beck⁹¹, who was then representing the ICRC. Doswald-Beck advocated for the inclusion of a prohibition of excessive collateral damage only as far as attacks against civilian passenger liners or vessels that qualify as lawful targets are concerned. No concerns regarding the issue of collateral damage were raised about the crews of enemy or neutral merchant vessels liable to attack. Eventually, the experts adopted

⁸⁶ Gottlieb von Jagow, *Official German Statement (German Response to the Sinking of the Lusitania)* (Berlin, May 28, 1915), in SOURCE RECORDS OF THE GREAT WAR: VOL. 3, A.D. 1915 195–99 (Charles F. Horne ed., 1923), <https://perma.cc/SQA4-EF9R>.

⁸⁷ SAN REMO MANUAL, *supra* note 46, r. 39, 40, 42(b), 46.

⁸⁸ *Id.* at 124.

⁸⁹ 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, 1–44 (Wolff Heintschel von Heinegg ed., 1991) [hereinafter THE MILITARY OBJECTIVE].

⁹⁰ *Id.* at 45–140.

⁹¹ Louise Doswald-Beck, ‘Commentary No. 7’, in THE MILITARY OBJECTIVE, *supra* note 89, at 76–80.

a paragraph on the prohibition of excessive collateral damage,⁹² but, as shown by the drafting history, that prohibition was to apply only to attacks on passenger vessels (and passenger liners), not to attacks on other merchant vessels or enemy warships.⁹³

IV. CONCLUSION

This Article considers three elements of the law of naval warfare that are becoming more important due to technological advances in methods and means of conflict at sea. These rules share similarities with the more familiar LOAC applicable to land operations, but in naval warfare, there are some fine distinctions in the legal standards that materially affect legal analysis and operational decision-making.

First, the legal definition of a military objective on land is narrower than at sea. On land, a military objective is an object which, by its nature, location, purpose, or use, makes an effective contribution to military action. At sea, the standard is looser and includes those objects which, by their nature, location, purpose, or use, contribute to the warfighting or war-sustaining effort of the enemy. This may include international shipping and dual-use items, such as agricultural products, technology, or industrial materials.

Second, the issue of precautions in attack also has important nuance for naval warfare. Precautions in attack are one dimension of proportionality but also constitute a separate legal obligation on the part of commanders to consider alternative means and methods to reduce the impact of armed conflict on civilians and civilian objects. The general standard reflected in AP I is that commanders have a legal duty to take all feasible precautions to avoid injury to the civilian population. Feasibility is a high bar, suggesting that steps must be taken if they can be accomplished (consistent with military necessity). In conflict at sea, however, reasonable precautions may be taken, a weaker mandate. The reasonable standard reflects a degree of ordinary care shown by a person who is responsible and trustworthy, or a duty of common due diligence.

Third, the metric or unit for determining proportionality in attacks during maritime engagements differs from war on land. The rule of proportionality requires that attacks not inflict expected incidental injury to civilians or civilian objects that is excessive in relation to the direct and concrete military advantage anticipated from the attack. Ships, aircraft, and submarines are the warfighting units at sea, whereas individuals satisfy this criterion on land.⁹⁴ This means that

⁹² *Id.* at 171.

⁹³ For a summary of the discussions see Wolff Heintschel von Heinegg, *The Discussions of the Round-Table of Experts on International Humanitarian Law Applicable to Armed Conflicts at Sea – A Summary*, in THE MILITARY OBJECTIVE, *supra* note 89, 141–69.

⁹⁴ Even in land warfare an object can be a platform unit—e.g., factory, pipeline, power station, runway.

the target at sea is the ship or aircraft itself, not the individuals on board. The proportionality analysis requires consideration for expected excessive damage to civilians or civilian objects near the target but not on board the ship, submarine, or aircraft itself. Once again, there is a looser standard for armed conflict at sea.

Each of these three legal standards in the law of naval warfare is less stringent than their counterparts that apply in land warfare. These differences are because the operational reality of fighting at sea (or the airspace above the sea) is conducted from platforms—ships, submarines, and aircraft. The prosecution of war at sea is much less likely to affect or implicate civilians or civilian objects, and therefore, there are accordingly lower standards to protect them. The flipside is that because war at sea has more lenient standards there will be a greater number of lawful targets and a greater likelihood of escalation.