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HOSPITAL SHIPS IN THE WAR ON TERROR

Sanctuaries or Targets?

Richard J. Grunawalt

Employment of military hospital ships in support of the war on terror is militarily, politically, and morally appropriate. White ships adorned with the red cross or red crescent are internationally recognized as protected platforms engaged exclusively in the care and treatment of the casualties of war or the victims of disaster, whether natural or man-made. Despite the humanity of their mission, outdated rules of conventional and customary international law, designed for a bygone era, hamper their effectiveness and imperil their safety. This enquiry examines these problems in the context of the war on terror and an adversary intent on destroying such "soft" targets as hospital ships in order to create the maximum in shock and horror. A brief overview of the development of the law pertaining to hospital ships is provided as well, with emphasis on rules governing methods of identification, modes of communication, and means of defense.

EVOLUTION OF LAW AND PRACTICE PERTAINING TO HOSPITAL SHIPS

The special protected status accorded to hospital ships during international armed conflict has a long and storied past. The utility of vessels especially designed or equipped to care for and transport wounded and sick soldiers and sailors has an even more extensive history. Indeed, there is some evidence that both the Athenian and Roman fleets employed vessels as hospital ships.[1]

Early Development (1868–1949)

By the seventeenth century, vessels especially configured to care for the wounded following engagements at sea routinely accompanied naval squadrons.[2] Pictet noted that by the time of the Crimean War (1853–56) "more than 100,000 sick

and wounded were repatriated to England on board hospital transports. Thereafter, no military expedition was ever undertaken without the necessary ships being assigned to evacuate soldiers from the combat area and give them the medical treatment they might require."[3]

It was not until 1868, however, that the international community sought to cloak ships engaged exclusively in the care and treatment of the wounded, sick, and shipwrecked with formal immunity from capture and destruction. Following adoption of the Geneva Convention for the Amelioration of the Condition of the Wounded in the Armies in the Field of 1864, a diplomatic conference was convened in Geneva for the purpose, among others, of extending to naval forces at sea the protections accorded in that treaty to wounded combatants on land.[4] That effort produced a convention entitled Additional Articles Relating to the Condition of the Wounded in War of 1868, which was never ratified but set forth basic precepts that continue to inform the law of armed conflict relative to hospital ships.[5] Principal among them is that "vessels not equipped for fighting which, during peace the government shall have officially declared to be intended to serve as floating hospital ships, shall . . . enjoy during the war complete neutrality, both as regards stores, and also as regards their staff, provided that their equipment is exclusively appropriate to the special service on which they are employed."[6] Although it was not in legal force, belligerents in both the Franco-German War of 1870–71 and the Spanish-American War of 1898 agreed to accept and abide by the 1868 accord.

By 1898, there was growing recognition of the need to revise and expand the 1864 Convention, and the International Committee of the Red Cross (ICRC) began the task of drafting an expanded version. This effort was overtaken, however, by the czar of Russia's initiative to convene the First Hague Peace Conference, which drafted and adopted, among other instruments, the 1899 Hague (II) Convention with Respect to the Laws and Customs of War on Land and the Regulations Annexed Thereto[7] as well as the 1899 Hague (III) Convention for the Adaptation to Maritime Warfare of the Principles of the Geneva Convention of 22 August 1864.[8] Given the failure of the 1868 Additional Articles to gain ratification, the Hague (III) Convention was the first successful attempt to extend to the maritime environment the formal protections applicable to medical facilities and the wounded and sick in the field on land.[9] Article 1 of the latter accord provides that vessels constructed or assigned solely for use as military hospital ships, and properly announced as such, "shall be respected and cannot be captured while hostilities last." Article 4, in turn, stipulates that hospital ships must accord relief and assistance to the wounded, sick, and shipwrecked without discrimination as to nationality, must not be used for "any military purpose," and must not "hamper the movements of the combatants." Article 4 also provides

that hospital ships are subject to visits, inspections, and some measures of control by the opposing belligerent. Article 5 states that military hospital ships are to be painted white (with a horizontal green stripe) and fly "the white flag with a red cross" to identify them as protected vessels.

The 1899 Hague (III) Convention was ratified by the United States in September 1900 and was incorporated into the U.S. Naval War Code of 1900.[10] Articles 21 through 28 of the latter correspond, more or less verbatim, with Articles 1 through 10 of the former.

The Russo-Japanese War of 1904–1905 provided the first real test of the 1899 Hague (III) Convention. Both Russia and Japan were parties to the treaty, and both accepted and (for the most part) abided by its terms. There were, however, allegations of intentional violation. Of particular note was a Russian claim that the Japanese deliberately fired at Russian hospital ships during the siege of Port Arthur in May 1904, an assertion that the Japanese denied.[11] The following year the Russian hospital ship *Orel* was captured and subsequently condemned by a Japanese prize court for "signaling" and providing other nonmedical services to the Russian fleet in ways that amounted to use for military purposes.[12]

The Second Hague Peace Conference of 1907 produced twelve separate conventions, including the 1907 Hague (X) Convention for the Adaptation to Maritime Warfare of the Principles of the Geneva Convention.[13] This treaty is essentially a reiteration of the 1899 Hague (III) Convention with several new articles added for clarity. Most important, for the purposes of this enquiry, is Article 8, which provides:

> Hospital ships and sick wards of vessels are no longer entitled to protection if they are employed for the purpose of injuring the enemy.
>
> The fact of the staff of the said ships and sick wards being armed for maintaining order and for defending the sick and wounded, and the presence of wireless telegraphy apparatus on board, is not a sufficient reason for withdrawing protection.[14]

The 1907 Hague (X) Convention continues the 1899 Hague (III) Convention regime with respect to mandatory steps to enhance the identification of hospital ships—for example, external surfaces painted white with a green stripe, and a white flag with a red cross.[15]

At the outbreak of World War I, the 1899 Hague (III) Convention and the 1907 Hague (X) Convention were recognized by the belligerents of both sides as governing the use and protection of hospital ships during international armed conflict. Indeed, these same rules applied during World War II. Although the Diplomatic Conference of 1929 produced the 1929 Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armies in the Field,[16] which revised and updated the 1906 Convention of the same name, and

the 1929 Geneva Convention Relative to the Treatment of Prisoners of War,[17] efforts to revise the 1906 Hague (X) Convention did not proceed beyond the draft stage before the onset of World War II.[18] Consequently, rules fashioned to accommodate warfare at sea in the nineteenth century were still in place as late as 1949. Indeed, this body of law was arguably obsolete even before the onset of hostilities in 1914. One observer, writing shortly after the end of World War II, noted that

> the framers of Hague Convention No. X had two main contingencies in mind: the first was the old-fashioned fleet action fought at short range with bloody carnage and consequently need for speedy succour of the wounded. Hospital ships were expected to accompany the fleet to sea and wait on the outskirts of the engagement with a view to picking up the wounded and drowning, and accordingly required protection while engaged on their task; thus, too, the obsolete provisions for respecting sick bays look back to the days when they might have been the scene of hand-to-hand fighting. Secondly, the Convention had to provide for the protection of sick and wounded combatant personnel such as might have been found on board troopers [*sic*] or merchant ships intercepted by the enemy. Having safeguarded them, its framers had completed their task of giving the sailor the protection to which the soldier was already entitled: they made no provision for the civilian, because none was needed.[19]

By the advent of World War I, the role of the hospital ship had evolved significantly. No longer hovering at the fringe of battle to attend to stricken seamen after engagements, the hospital ships of that conflict were principally engaged in the transport of wounded and sick combatants from theaters of operations ashore to hospital facilities at home—a role not envisioned by the framers of early conventions. The only specific admonition against using hospital ships for military purposes set forth in Article 4 of the 1907 Hague (X) Convention is that against hampering "the movements of the combatants," clearly a vestige of close-aboard fleet action of a bygone era. Nonetheless, the belligerents of both world wars accepted the applicability of Hague (X) to those conflicts, while differing, often markedly, as to its interpretation.[20]

Practice during World Wars I and II

Many of the problems encountered during both conflicts revolved around the difficulty of identification. White hulls, green stripes, and the distinctive flag may have served well in daylight encounters with surface vessels relatively nearby, but they proved largely ineffective in warfare at sea marked by long-range surface bombardment and air and subsurface engagements, often during darkness or in adverse weather conditions. Not surprisingly, damage to and destruction of hospital ships in both world wars was generally the result of misidentification, although deliberate attacks certainly did occur. In January

1917, alleging that British and French hospital ships were being used to transport troops and munitions, Germany announced that it would sink on sight enemy hospital ships found in certain designated waters.[21] Both Great Britain and France denied those allegations, but a number of British and French hospital ships were in fact sunk by German U-boats. Perhaps most grievous was the sinking of *Llandovery Castle* on 27 June 1918 by *U-86*. The British hospital ship *Llandovery Castle* was en route to England after delivering wounded and sick Canadian soldiers to Halifax, Nova Scotia, when it was torpedoed and sunk some 116 nautical miles southwest of Ireland. Two hundred thirty-four of its 258 crew and medical staff perished (there were no patients on board at the time). The German Supreme Court, in the war crimes trial of two of the U-boat's officers in 1921, found that

> up to the year 1916 the steamer *Llandovery Castle* had . . . been used for the transport of troops. In that year she was commissioned by the British Government to carry wounded and sick Canadian soldiers home to Canada from the European theatre of war. The vessel was suitably fitted out for the purpose and was provided with the distinguishing marks, which the Tenth Hague Convention . . . requires in the case of naval hospital ships. The name of the vessel was communicated to the enemy Powers. From that time onward she was exclusively employed in the transport of sick and wounded. She never again carried troops, and never had taken munitions on board.[22]

The Court further found that notwithstanding directives from the German high command that hospital ships (other than those encountered in designated barred areas) were exempt from capture or destruction,

> [the U-boat commander] was of the opinion . . . that on the enemy side, hospital ships were being used for transporting troops and combatants, as well as munitions. He, therefore, presumed that, contrary to International Law, a similar use was being made of the *Llandovery Castle*. In particular, he seems to have expected she had American airmen on board. Acting on this suspicion, he decided to torpedo the ship.[23]

The first controversy over the protected status of hospital ships in World War I, however, involved the capture and condemnation as prize of the German auxiliary hospital ship *Ophelia* in October 1914 by Great Britain. The prize court found that *Ophelia* was "adapted and used as a signaling ship for military purposes."[24] This instance of a hospital ship being used to obtain or transmit information of a military character—reminiscent of the *Orel* case previously mentioned—was, at least in part, responsible for the inclusion in Article 34 of the 1949 Geneva (II) Convention of a specific prohibition of the possession or use by hospital ships of a "secret code" for communications, a matter more fully addressed below.[25]

Hospital ships fared significantly better in World War II than in World War I. The scholar J. C. Mossop has noted:

> It is, perhaps, fair to say that during the 1939 war the British Admiralty, the United States Navy Department, and the German Naval Command respected the Principles of the [1907] Convention; such abuses as occurred were authorized at a low level and were corrected when discovered. Despite government statements on both sides there is little evidence to show that attacks on hospital ships were authorized by the respective commands and much to prove that the majority were accidental and due in the main to faulty recognition.[26]

Although Mossop's observations were addressed principally to the European theater of operations and war in the Atlantic, the conduct of the belligerents in the war in the Pacific followed a similar pattern. Violations were reported, both regarding the misuse of hospital ships to transport combatant personnel and munitions, and with respect to the intentional targeting of such vessels ostensibly operating in full compliance with the 1907 Hague (X) rules.[27] However, as was the case in the Atlantic, both sides recognized the practical value of hospital ships and sought to honor their protected status. In this respect the belligerents were "principled" adversaries, adhering to basic humanitarian values perceived to be in their respective interests. This general compliance with the law of naval warfare was not, then, entirely altruistic. Indeed, the importance of reciprocity in this calculus is reflected in an exchange of message traffic between Admiral H. P. Smith, USN, Senior Officer Present of U.S. Naval Forces in the Marianas, then providing blockade forces in the Bonin Islands, and the Commander in Chief Pacific. Admiral Smith had expressed his intention to

> exercise the privilege accorded in Article 4 of the Hague Convention to divert the [Japanese] hospital ship, on her departure from Chichi Jima, to Iwo Jima, where I would conduct an examination.
>
> I was immediately directed by the Commander-in-Chief not to undertake the action in view of the fact that every effort was being made to avoid any incident regarding hospital vessels, which might lead to a reprisal against our own.[28]

The practical difficulties associated with identifying hospital ships were, as noted above, amply and tragically exemplified in the two world wars. As the role of long-range artillery, submarines, and attack aircraft expanded exponentially in war at sea, so too did the likelihood of faulty identification. In recognition of this reality and the experience of World War I, a committee of experts that convened in Geneva in 1937 to draft revisions to the 1907 Hague (X) Convention reported:

> The development of means of modern warfare (aviation and long-range artillery) has rendered insufficient the means of identification heretofore provided in the Hague

> Convention. That is why the Commission has believed that it should stipulate the obligation for hospital ships, in addition to the red band on a white background, to be furnished on the bridge and the elevated parts with red crosses on a white background clearly visible from any direction whatsoever.[29]

Due to the onset of World War II, that effort did not come to formal fruition. However, the need to improve the identification regime for hospital ships was such that the belligerents adopted the markings proposed in the committee's report. William Bishop, in a U.S. State Department internal memorandum of 7 May 1943, noted,

> It would . . . appear that the provisions of Article 5 of Hague Convention X are being complied with in the present war, but that there is developing a practice by belligerents, approved by the International Committee of the Red Cross, of placing additional markings of red crosses on white backgrounds on their hospital ships. . . . [Such] additional markings are being used currently on Japanese hospital ships, as well as on those of the United States, Great Britain, Germany and Italy.[30]

These initiatives, and others during the course of the conflict, proved to be very beneficial. Mossop notes that

> during the 1939 war additional markings on the sides, stern, and deck of hospital ships to aid identification by day, and illumination at night with a band of green lights on the sides and red crosses on the sides and deck picked out with red lamps, were adopted by common consent and provided a high degree of protection against underwater attack—although errors are not unknown in practice.[31]

However, as Mossop also observes,

> the advent of the high-level bomber has provided a problem of an entirely different kind. Existing methods of marking and illumination have proved unsatisfactory even at close range, and objections raised by local military authorities to the presence inside their ports of illuminated ships have added a complication to an already difficult problem. At sea and in port accidental attacks on hospital ships have been all too frequent and the casualty lists heavy.[32]

The issue of effective identification of hospital ships was to remain a matter of importance in the drafting of postwar rules.

The 1949 Geneva Conventions

The experience of the two world wars, coupled with the revolution of that era in naval warfare technology and practice, mandated a thorough overhaul of the rules pertaining to the protections and obligations of military hospital ships. Accordingly, a diplomatic conference convened in Geneva in early 1949 to revise and expand the regime for international protection of war victims set about to include a comprehensive treaty with respect to the maritime environment. It

produced the Geneva (II) Convention for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea.[33] The 1949 Geneva (II) Convention consists of sixty-three articles, whereas the 1907 Hague (X) Convention had but twenty-eight: "This extension is mainly due to the fact that the present Convention [the 1949 Geneva Convention(II)] is conceived as a complete and independent Convention whereas the 1907 Convention restricted itself to adapting to maritime warfare the principles of the [1906 Geneva] Convention on the wounded and sick in land warfare."[34]

Chapter III (Articles 22 through 35) of the 1949 Geneva (II) Convention sets forth the basic obligations and protections of hospital ships. They are to be protected at all times "and may in no circumstances be attacked or captured."[35] This language makes clear that hospital ships retain their protected status whether or not they are, at a given moment, engaged in the treatment or transport of casualties. It also clarifies the somewhat archaic wording that hospital ships "shall be respected," with the admonition that they may not be "attacked." Article 22 reflects the actual practice of the world wars in making clear that the permissible employment of hospital ships includes the transportation as well as the treatment of the wounded, sick, and shipwrecked, including military members rendered *hors de combat* in land warfare. Among the clarifications necessitated by disparate interpretations that surfaced during World War I, and again in World War II, is the assertion in Article 26 that the protections of the convention extend to hospital ships of any tonnage, as well as to their lifeboats.

Of particular relevance to this enquiry are those provisions of the convention that address the circumstances or actions that may lead to loss of protection. Article 30 sets forth the basic premise that hospital ships are not to be used for any military purpose other than, of course, the care and transport of casualties. Moreover, they "shall in no wise hamper the movement of the combatants." Article 30 also postulates, however, that "during and after an engagement" hospital ships "act at their own risk." Pictet, in his analysis of this latter provision, noted that

> in 1937, the question was raised as to whether a hospital ship should not waive the protection of the Convention when being escorted by warships since it would then no longer be possible to stop and search it. In fact that was the position taken by certain countries during the Second World War. A hospital ship is obviously bound to lose its immunity under the Convention if it is being escorted by warships.[36]

However, in a footnote accompanying that assertion, Pictet added: "Which does not mean that the humanitarian principles would not be applied in such a case, or that one would be justified in deliberately firing on the hospital ship."[37]

This rather confusing commentary is clarified in the ensuing paragraph, in which Pictet postulated that "if hospital ships draw near to warships, they do not lose their protection of the Convention but they may in fact expose themselves to danger." Clearly, warships in proximity to hospital ships do not thereby somehow assume immunity from attack; conversely, hospital ships do not lose their immunity when in the presence of warships. The language of Article 30 should be read in that sense, whether or not the hospital ship is under warship convoy. The likelihood that a hospital ship may be engaged in some nefarious purpose while under escort is so remote that any doctrine justifying its attack solely on the ground that the intercepting force is denied the opportunity to stop and search it becomes, in my view, indefensible.

Article 34 of the 1949 Geneva (II) Convention provides, in pertinent part,

> The protection to which hospital ships and sick-bays are entitled shall not cease unless they are used to commit, outside their humanitarian duties, acts harmful to the enemy.
>
> . . . In particular, hospital ships may not possess or use a secret code for their wireless or other means of communication.

Pictet, in his commentary on Article 34, stated that the term "acts harmful to the enemy" is "self evident and must remain quite general," noting that such acts include "carrying combatants or arms, transmitting military information by radio, or deliberately providing cover for a warship." He added,

> The fact that the use of any secret code is prohibited affords a guarantee to the belligerents that hospital ships will not make improper use of their transmitting apparatus or any other means of communication. Hospital ships may only communicate in clear, or at least in a code that is universally known, and rightly so, for the spirit of the Geneva Conventions requires that there should be nothing secret in their behaviour *viz-à-viz* the enemy.[38]

Unfortunately, this desire to avoid any possibility of using a hospital ship's communications suite in a manner harmful to the enemy, as was the case with the *Orel* in 1904, created a major problem for contemporary naval practice.[39] In order to carry out fully their humanitarian functions, hospital ships must be able to proceed to designated pickup points to evacuate wounded and sick personnel from facilities ashore and to rendezvous with combatant units at sea when and where necessary to embark casualties. To do so without providing critical military information to the enemy obviously requires the use of encrypted communications. The experience of the Royal Navy in the Falklands/Malvinas conflict of 1982 illustrates the point. The legal expert Philippe Eberlin has described the practical difficulties encountered:

> All communications were made in clear. As the use of secret codes is banned by Article 34 of the Second Convention, the radio communications exchanged by the hospital ships with their land bases were also in clear. It was not possible for them to communicate directly with the warships, since any communication in clear could reveal the warship's position to the adversary. Consequently the hospital ships were not informed about the movements of the fleet or about the development of military operations on land, and thus had to wait in readiness in a zone known as the "Red Cross Box," which could be equated with a neutralized zone. . . .
>
> To maintain long distance contact with their bases, the . . . hospital ships used radio telex via the Inmarsat satellite system. Telex messages were likewise exchanged in the clear, which meant that the hospital ships could not be informed in detail about the medical evacuations in which they were required to participate. . . . The Naval Command, from which the hospital ship received its orders, could not use coded radio communications to inform it directly, and thus rapidly, about the military situation and dangers in the area where it was operating, nor about the numbers of casualties to be evacuated, the wounds sustained, emergency cases, *etc.*[40]

It should be noted that the drafters of Article 34 were aware of at least some of the difficulties that were to be encountered in its application. Resolution 6 of the diplomatic conference that produced the 1949 Geneva Conventions states:

> Whereas the present Conference has not been able to raise the question of the technical study of means of communication between hospital ships, on the one hand, and warships and military aircraft, on the other, since that study went beyond its terms of reference;
>
> Whereas this question is of the greatest importance for the safety and efficient operation of hospital ships, the Conference recommends that the High Contracting Parties will, in the near future, instruct a Committee of Experts to examine technical improvements of modern means of communication between hospital ships, on the one hand, and warships and military aircraft, on the other, and also to study the possibility of drawing up an International Code laying down precise regulations for the use of those means, in order that hospital ships may be assured of the maximum protection and be enabled to operate with the maximum efficiency.[41]

This recommendation proved to be easier said than done. Unfortunately, the prohibition on the use of "secret codes" remains a serious problem for contemporary practice; it will be addressed further below.

Specific conditions set forth in Article 35 that do *not* deprive hospital ships of their protections include:

- Arming of crew members for the purpose of maintaining order, for their own defense or for the defense of the wounded and sick[42]

- The presence on board of apparatus exclusively intended to facilitate navigation or communication[43]
- Portable arms and ammunition taken from the wounded and sick
- Care of wounded, sick and shipwrecked civilians
- Transport of equipment and personnel intended exclusively for medical duties.[44]

The first condition cited, arming crew members, is essentially the same as that set forth in Article 8 of the 1907 Hague (X) Convention. While it is premised on an outdated view of the employment of hospital ships in naval warfare, it retains some contemporary utility with respect to the possible boarding of such vessels by terrorists, pirates, or other unauthorized forces.

Article 43 of the 1949 Geneva II Convention addresses the distinctive markings to be used to identify hospital ships. Pictet commented, "It is clear from the records that the lack of an up-to-date system of marking, visible at a great distance, was the cause of most of the attacks made on hospital ships during the Second World War. [T]he Diplomatic Conference therefore adopted far-reaching amendments to the 1907 text."

However, the improvements that were attained remained in the realm of what was to be painted how large and in what color—not solutions of problems associated with high-altitude bombers, let alone beyond-visual-range projectiles and missiles—considerations that even then were beginning to dominate war at sea. Article 43 provides, in pertinent part, that

> the [hospital] ships . . . shall be distinctively marked as follows:
>
> (a) All exterior surfaces shall be white.
>
> (b) One or more dark red crosses, as large as possible, shall be painted and displayed on each side of the hull and on the horizontal surfaces, so placed as to afford the greatest possible visibility from the sea and from the air.
>
> All hospital ships shall make themselves known by hoisting their national flag. . . . A white flag with a red cross shall be flown at the mainmast as high as possible.[45]

Comprehensive improvements in the regime for identification of hospital ships were not formally achieved until the coming into force of Additional Protocol I and its annexes.

Additional Protocol I of 1977

The 1977 Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (known simply as "Additional Protocol I"), has its origins in conferences of government experts under the auspices of the ICRC between 1974 and 1977. That

effort produced a draft treaty that was adopted by the Diplomatic Conference at Geneva on 8 June 1977 and opened for signature on 12 December of that year.[46] Additional Protocol I does not address the rules of international law applicable in war at sea, except as the conflict affects the civilian population on land (naval and air bombardment from sea to shore, etc.);[47] however, it does pertain to the protection of the victims of international armed conflict, including wounded, sick, and shipwrecked personnel—and, therefore, hospital ships.

The provisions of Additional Protocol I bearing on this enquiry include Article 22 (1), which stipulates that hospital ships may care for and transport civilian sick, wounded, and shipwrecked persons; and Annex I, which provides technical regulations for the marking and identification of hospital ships, among other things. The inclusion of civilian casualties reflected the practice of both world wars and was not controversial. Annex I, while adopted by consensus by the Diplomatic Conference, nonetheless poses some problems in its implementation.

Chapter III of Annex I, "Distinctive Signals," begins by asserting that use of the signals "is optional" (Article 5). Article 6 addresses a signal specifically for medical aircraft (a flashing blue light) but states that it may also be employed on other medical transports, including hospital ships. Article 7 prescribes an identifying radio message, preceded by a distinctive priority signal, for use exclusively by medical transports: call sign, position, and type; intended route, times of departure and arrival; and other relevant information, such as flight altitude, radio frequencies being guarded, and "secondary surveillance radar" (below) modes and codes. These messages are to be transmitted in English at appropriate intervals on an agreed frequency.[48] Article 8, in turn, establishes the secondary surveillance radar (SSR) system for identifying medical aircraft;[49] the parties to a conflict may agree to use the SSR system on hospital ships as well. Finally, Article 9 (as amended on 30 November 1993) provides in part that:

> 3. It should be possible for medical transports to be identified by submarines by the appropriate underwater acoustic signals transmitted by the medical transports.
>
> The underwater acoustic signal shall consist of the call sign . . . of the ship preceded by the single group YYY transmitted in Morse on an appropriate acoustic frequency, *e.g.* 5 kHz.
>
> Parties to a conflict wishing to use the underwater acoustic signal . . . shall inform the Parties concerned of the signal as soon as possible, and shall . . . confirm the frequency to be employed.[50]

The effectiveness and efficiency of the distinctive signals regime of Annex I have, of course, yet to be tested in the crucible of combat at sea. Given that adoption by the parties to Additional Protocol I of the various signals in Chapter III of Annex I is optional, and that hospital ships are today few in number, these

technical means of identification will likely remain untested under wartime conditions for the foreseeable future. Nonetheless, in an effort to optimize these provisions, the ICRC published in 1990 its *Manual for the Use of Technical Means of Identification.* W. E. M. Heintschel von Heinegg (the Naval War College's Charles H. Stockton Professor of International Law for 2003–2004) has observed that "in modern warfare, which is characterized by the use of electronic means of warfare, these additional technical means of identification are essential for minimizing the danger of mistaken attacks. . . . In view of modern weapons technology the methods recommended [in the 1990 manual] are, however, only a first step in the right direction."[51]

Assuming that these distinctive signals do prove effective in combat, there remains the potential for abuse, particularly with respect to the underwater acoustic signal concept set forth in Article 9 (as amended). However, attempts by vessels to pose as hospital ships are not likely in the war on terror and so will not be further pursued here.

The San Remo Manual *of 1994*

The purpose of the manual is to provide a contemporary restatement of international law applicable to armed conflicts at sea.

> A contemporary manual was considered necessary because of developments in the law since 1913 that for the most part have not been incorporated into recent treaty law, the Second Geneva Convention of 1949 being essentially limited to the protection of the wounded, sick and shipwrecked at sea. In particular, there has not been a development for the law of armed conflict at sea similar to that for the law of armed conflict on land with the conclusion of Protocol I of 1977 additional to the Geneva Conventions of 1949.[52]

The international-law specialists and naval experts from twenty-two different nations who produced the *San Remo Manual* did so in their individual, rather than official, capacities. Nonetheless, the manual is widely regarded as authoritative in its articulation of both the customary and conventional law of naval warfare. Accordingly, its rendering of the rules pertaining to cryptographic communications, defensive armament, and means of identification for hospital ships—the three principal areas of this enquiry into the employment of hospital ships in the war on terror—are particularly germane.

Article 171 of the *San Remo Manual* represents a fairly sharp departure from existing conventional law with respect to cryptographic equipment on hospital ships. Article 34 of the 1949 Geneva (II) Convention not only specifically prohibits the possession by hospital ships of "a secret code for their wireless or other means of communication" but does so in the context of "acts harmful to the enemy" that trigger loss of immunity from attack, albeit only after due warning

and failure to take remedial action.[53] The practical difficulties with adherence to this prohibition in the modern age have been addressed above in connection with the Falklands/Malvinas War; it comes as no surprise that the drafters of the new manual concluded that Article 34 is no longer workable:

> Technology has changed since the adoption of the Geneva Conventions. All messages to and from warships, including unclassified messages are nowadays automatically encrypted when sent and decrypted when received by communication equipment that organically includes the crypto function. Hospital ships, therefore, should have the same type of communication equipment to avoid delays in receiving vital information caused by having separate and outdated radio equipment that does not have the integral crypto function.[54]

Accordingly, Article 171 of the manual provides that "in order to fulfill most effectively their humanitarian mission, hospital ships *should* be permitted to use cryptographic equipment. The equipment shall not be used in any circumstances to transmit intelligence data nor in any way to acquire any military advantage" [emphasis added]. This formulation is an expression of what the drafters considered the law ought to be, not what it is. Nonetheless, it is certainly welcome as a step in the right direction.

The manual also takes a more realistic approach to the need for hospital ships to possess at least some means of self-defense. Long-standing conventional law prohibits "acts harmful to the enemy" by hospital ships.[55] While those proscriptions are silent as to the means that may be employed to defend the ship itself (as opposed to the wounded, sick, and shipwrecked being cared for on board), it is clear that offensive capability is impermissible. Indeed, interpretation of conventional law in this respect has historically been very restrictive, not even allowing a modicum of self-defense capability, beyond small arms to protect casualties and medical staff. This hesitation stems from the obligation of hospital ships to submit to boarding and inspection by warships of the opposing party; weapons sufficient to thwart such boardings would pose potential for abuse.[56] This restrictive interpretation is reflected in the military manuals currently in use by most navies.[57] Again, this is very understandable. In the abstract, there is a reluctance to take any initiative that could possibly lead to loss of immunity.

Article 170 of the *San Remo Manual* provides that "hospital ships may be equipped with purely deflective means of defence, such as chaff and flares. The presence of such equipment should be notified." The explanation accompanying this provision states:

> As there is no prohibition on hospital ships defending themselves, it would be unreasonable not to allow them to do so as long as it is in a way that cannot be interpreted

> as being potentially aggressive. In particular, with modern means of warfare, it is quite likely that a missile could be deflected from a military target using its deflective means of defence, and that the missile would then find a ship without such means, namely, hospital ships. As hospital ships are likely to be in the vicinity of warships, the chances of their being hit in this way are quite high and not allowing them this means of defence would mean that they are more likely to be hit than warships, which would be an absurd result. . . .
>
> This paragraph is formulated in a way as to leave no doubt that hospital ships can only use deflective means of defence, and not means that could be used in an offensive fashion, such as antiaircraft guns.[58]

This provision is also a welcome contribution. However, as will be discussed below in the context of the war on terror, much remains to be done if hospital ships are to be given a realistic chance to survive an attack, whether intentional or inadvertent.

With respect to identification, the manual provides in Article 172 that "hospital ships . . . are encouraged to implement the means of identification set out in Annex I of Additional Protocol I of 1977." Article 173, in turn, states, "These means of identification are intended only to facilitate identification and do not, of themselves, confer immunity." It is important here to bear in mind that the distinctive signals set out in Annex I are optional. Not using them does not deprive an otherwise protected platform of immunity from attack.

U.S. NAVY HOSPITAL SHIPS: CONTEMPORARY CAPABILITY, DOCTRINE, AND PRACTICE

The concept of employment of U.S. Navy hospital ships is officially characterized as follows:

> Hospital ships are flexible, capable and unique Navy HSS [health service support] assets that can be used in joint operations or combined/coalition wartime operations and peacetime operations. They are well suited for joint operations with a naval component because of their self-sustainability. They can be employed in war operations and in certain military peacetime operations, such as humanitarian assistance and disaster relief. In peacetime operations, the hospital ship may operate independently or as part of a joint or coalition force. Hospital ships are designed for operations of a long-term nature (i.e., 60 days or longer, 30 days without major resupply).[59]

U.S. Navy Hospital Ship Capability

The primary mission of a U.S. Navy hospital ship is to:

> Provide rapid, flexible, and mobile acute medical care to support a Marine air/ground task force (MAGTF) deployed ashore, Army and Air Force units deployed ashore, and naval amphibious task forces and battle forces afloat. Operations are governed by the principles of the *Geneva Convention for the Amelioration of the*

Condition of Wounded, Sick, and Shipwrecked Members of the Armed Forces at Sea of 12 August 1949.

As a secondary mission, the ships (with appropriate tailoring of manning, medical material/equipment, and provisions) are capable of providing mobile surgical hospital service for use by U.S. government agencies involved in disaster or humanitarian relief, or of limited humanitarian care incident to these missions or to peacetime military operations.[60]

The U.S. Navy currently has two hospital ships in active status, USNS *Mercy* (T-AH 19) and USNS *Comfort* (T-AH 20).[61] They joined the fleet in 1986 and 1987, respectively. Both are converted *San Clemente*–class commercial supertankers with a full-load displacement of 69,360 tons and an overall length of 894 feet. They have a range of thirteen thousand nautical miles at 17.5 knots. Each is manned (when activated) with a civilian master and sixty-three civilian mariners, as well as fifty-eight Navy communications and support personnel. Upon full mobilization, each ship would be staffed by an additional 1,100 medical/dental personnel. However, that number can be significantly lower, depending on the mission. As an example, *Mercy* operated in the Philippines as a hospital facility in 1987 with a medical/dental complement of just 375 personnel, treating over sixty-three thousand patients during a three-month deployment. Both *Mercy* and *Comfort* boast twelve operating theaters, four X-ray rooms, a pharmacy, and a blood bank. They each have an eighty-bed intensive care unit and 920 other patient beds to accommodate intermediate and minimal-care casualties. *Mercy* and *Comfort* are maintained in a "reduced operational status," *Mercy* in San Diego and *Comfort* in Baltimore. They can be fully activated and crewed within five days.[62]

Without question, the *Mercy*-class hospital ship represents a formidable capability in the treatment and care of casualties in the numbers that may be encountered in the course of the war on terror, whether or not weapons of mass destruction (WMD) fall into the hands of, or are employed by, al-Qa'ida or other terrorist entities. Obviously, mass casualties can result from conventional weapons and devices—witness the destruction of the Marine barracks in Beirut in 1983; the Federal Building in Oklahoma City in 1995; the Khobar Towers in Dhahran, Saudi Arabia, in 1996; Pan Am flight 103 over Lockerbie, Scotland, in 1988; the U.S. embassies in Kenya and Tanzania in 1998; the World Trade Center in New York City and the Pentagon in Arlington, Virginia, in 2001; the nightclub in Kuda, Bali, in 2002; and the train in Madrid, Spain, in 2004, to cite but a few such attacks. Nonetheless, the potential carnage from a nuclear, chemical, or biological attack makes WMD a terrorist threat of another order of magnitude. Nonetheless, whether attacks are conventional or unconventional, the

importance of the humanitarian contribution that platforms such as *Mercy* and *Comfort* can make in the war on terror is apparent.

Recent Practice and Current Doctrine

Both *Comfort* and *Mercy* were activated in August 1990 and deployed to the Persian Gulf in support of Operations DESERT SHIELD and DESERT STORM. *Comfort* was also activated in 1994 during the Haitian crisis to process refugees in Operation UPHOLD DEMOCRACY, and again in 1998 to participate in BALTIC CHALLENGE 98, a NATO Partnership for Peace exercise in the Baltic Sea.[63] More recently, *Comfort* was deployed to New York Harbor in the aftermath of the destruction of the World Trade Center in September 2001 and, in January 2003, to the Persian Gulf in support of Operation IRAQI FREEDOM.

Comfort's deployment following 9/11 illustrates the versatility of this class of ship. On departure from Baltimore on 12 September, *Comfort* was assigned to provide emergency medical assistance to victims of the terrorist attack. However, by the time the ship arrived on station, its mission had been changed to providing logistical and hotel services support to firefighters and emergency personnel.[64] In January 2003, *Comfort* returned to its primary mission while deployed in support of IRAQI FREEDOM, treating more than 650 battle-related casualties, including about two hundred Iraqi prisoners of war and Iraqi civilians.[65]

Current doctrine regarding identification of U.S. Navy hospital ships is premised on applicable provisions of the 1949 Geneva (II) Convention, in accordance with which such vessels (hospital ships and lifeboats) are "conspicuously marked. They are painted white with dark red crosses painted on their bow, side, stern, and horizontal surfaces for recognition from the air and sea. The red crosses should be illuminated at night. A hospital ship must fly its national flag and a white flag with a red cross at the main mast."[66]

To my knowledge, Navy doctrinal publications make no mention of the distinctive electronic identification signals outlined in Annex I to Additional Protocol I—flashing blue lights, priority radio signals, SSR modes and codes, or underwater acoustic signals.[67] However, flashing blue lights and the SSR system are in fact installed in *Comfort,* although the underwater acoustic signal system is not.[68] This is not surprising, in that the United States is not a party to Additional Protocol I, the distinctive signals regime of Annex I being optional in any event. Moreover, in the war on terror it is not at all clear that such signals would serve any useful purpose.

As regards the employment of cryptographic communications equipment in U.S. hospital ships, U.S. Navy doctrine continues to recite the 1949 Geneva II Convention prohibitions on the use of "secret codes":

> The second paragraph of Article 34 of GWS-Sea [i.e., the 1949 Geneva II Convention] provides that hospital ships may not possess or use a secret code for their wireless or other means of communication. This proscription may include many types of encryption devices that are common to many means of modern communication. United States policy is to follow all provisions of the Geneva Conventions, including the prohibition on use of secure and encrypted communications aboard hospital ships.
>
> The technological requirements of modern communications have clearly rendered this provision of GWS-Sea outdated. . . . [M]ost modern communications and navigation systems, including satellite systems, use some form of encryption even at the most basic level. While avoiding all use of encrypted equipment may be problematic, the prohibition contained in the Geneva Convention requires extreme vigilance in ensuring that hospital ships do not lose their protected status.[69]

This formulation is reflective of existing conventional law. However, as discussed above, compliance with these dictates poses severe practical problems for hospital ships in the modern era. Actual U.S. Navy practice reflects a more flexible approach. Michael Sirak, writing for *Jane's Defence Weekly,* has reported that encrypted communications devices were installed in *Comfort* before deployment to the Middle East in January 2003:

> USN officials argue that the rules preventing hospital ships from using encrypted communications devices—contained principally in the Second Geneva Convention of 1949—do not adequately account for technological advancements, such as satellite communications, which are today regarded as vital for these vessels to function effectively. "The way most naval warships communicate now is done on a level that even the most simple communications have some level of encryption," said one Navy official. "Even the actual navigation of the ship can sometimes be in jeopardy if you cannot use these encrypted forms of communication."[70]

Assuming this report is accurate, and I have no doubt that it is, the U.S. Navy has exercised very good sense in equipping *Comfort* with encrypted communications prior to deployment for IRAQI FREEDOM.

Current U.S. Navy doctrine respecting the placement of weapons in hospital ships notes that such ships lose their protection if they engage in hostile acts but that arming crews for the maintenance of order, for their own defense or that of the sick and wounded, does not deprive hospital ships of the protection otherwise due them.[71] As noted above, this formulation, taken from the 1949 Geneva (II) Convention, has historically been interpreted to mean that only light individual weapons may be employed.

Contemporary U.S. Navy practice is more realistic. *Jane's Defence Weekly* reports that .50-caliber machine guns were installed on *Comfort* prior to its deployment in support of IRAQI FREEDOM:

> USN officials say the small arms currently allowed on hospital ships, such as side arms and rifles, are not enough to thwart an attack by a non-state actor like a terrorist group. They say the limited protection afforded to these vessels under international law would be unlikely to deter terrorists and, unlike lawful belligerents, terrorists would consider them an attractive "soft" target. Therefore, they argue that it is necessary to place "crew-served" weapons like .30-cal. and .50-cal. machine guns on them, exclusively for defence, to fend off attacks by swarming, heavily armed speed boats or suicide craft.[72]

Again, I have no doubt that this report is correct. Indeed, it would have been inexcusable if *Comfort* had been dispatched to the Arabian Gulf, and thereby placed in harm's way, without at least this modicum of self-protection.

ASSESSMENT, RECOMMENDATIONS, PROPOSALS, AND OPTIONS

Both the conventional and customary law of international armed conflict cloaks hospital ships with immunity from capture or attack. This humanitarian dictate is premised on the principle that unnecessary suffering and destruction in armed conflict serves no valid military purpose and, accordingly, is to be minimized as much as possible.

Identification of Hospital Ships in the War on Terror

Wounded, sick, and shipwrecked military members, and the medical personnel who care for them, are considered noncombatants and therefore not subject to direct attack. Hospital ships caring for and transporting casualties of war enjoy immunity from deliberate attack, provided they are identifiable as such—hence the rules regarding distinctive markings, emblems, and signals. As this article has noted, most of the damage and destruction inflicted on hospital ships in past conflicts was the result of misidentification, a problem that has intensified in this era of beyond-visual-range targeting.

However, the notion that hospital ships will not be intentionally attacked if they can be properly identified is premised on the assumption that the adversary is principled. Members of the armed forces of sovereign states engaged in armed conflict are presumably fully conversant with the law of armed conflict and dedicated to compliance with it. Indeed, notwithstanding the carnage of the wars of the twentieth century, there was a decided effort by most, if not all, participating states to respect the law of armed conflict. The war on terror presents a far different paradigm. A terrorist organization, whether composed of nonstate actors or clandestine operatives of sovereign entities, is by definition an unprincipled adversary, with the will to target intentionally noncombatant personnel, facilities, and activities, both civilian and military. They consider protected places and platforms targets of choice, both for their vulnerability and the shock value of their destruction. In this context, effective identification of hospital ships

becomes academic—in the war on terror, hospital ships may be targeted *because* they are hospital ships. It is perhaps not unreasonable, then, to question the wisdom of painting them white, adorning them with red crosses or crescents, and illuminating them at night.

At this juncture it would be well to remember that the essence of the law is protection of the humanitarian function performed by the platform, not its coating of paint or the symbols it displays. A vessel devoted exclusively to the care and transport of wounded, sick, and shipwrecked personnel, and understood by an adversary to be so employed, is protected under the law whether it is painted white, green, or haze gray.[73] If identification worsens the vulnerability of a hospital ship to attack, a fresh coat of paint offers little comfort.

That said, however, I am not a proponent of removing protective markings from U.S. Navy hospital ships in the war on terror, *provided* they are defended by accompanying combatants or are equipped to protect themselves from attack, deliberate or inadvertent. In my view, the distinctive painting and the prominent display of the protective symbol serve a purpose beyond that of reducing the likelihood of inadvertent attack by a principled adversary. Hospital ships are symbolic of our humanity, in many ways. They provide hope and comfort simply by their visible presence. This is particularly so in an era of mass casualties inflicted by terrorists on innocent men, women, and children. In a world beset by savagery, hospital ships are internationally recognized as a potent moral force. We ought not to give that up lightly.

Encrypted Communications in Hospital Ships in the Twenty-first Century

As noted above, current U.S. Navy doctrine prohibits the possession or use by hospital ships of any cryptographic means of communications during armed conflict. While recent practice has somewhat eased that total proscription, the problem remains. The genesis of these constraints involves a few isolated incidents many years ago when hospital ships were alleged to have used coded wireless communications capability to transmit operational intelligence, a "military purpose" use inconsistent with their protected status and in violation of the 1899 Hague (III) Convention and the 1907 Hague (X) Convention. In an effort to prohibit such acts more clearly, the drafters of the 1949 Geneva (II) Convention created the "secret codes" prohibition of Article 34, discussed above, which now frustrates the effective and efficient operation of hospital ships. Moreover, combatant and logistic-support ships and aircraft transporting casualties to a hospital ship remain targetable. If such platforms communicate in the clear, they may reveal information that would help the enemy target not only themselves but the rendezvous location, thereby endangering the hospital ship as well. Domestic law considerations also are at issue in that Federal medical privacy

standards mandate the protection of health information of individuals, necessitating employment of secure means for the transmission of medical data. In short, compliance with the "secret codes" prohibition of Article 34 of the 1949 Geneva (II) Convention seriously degrades the ability of modern hospital ships to carry out their humanitarian mission, not only during the war on terror, but generally.

The time has now come to abandon formally U.S. Navy adherence to the prohibition of the possession and use by hospital ships of encrypted communications, whether for reception or transmission. Obviously, the conventional and customary rules mandating that hospital ships not be used for any military purpose other than the care and transport of the wounded, sick, and shipwrecked must remain inviolable. However, the likelihood that a hospital ship would be employed to collect and promulgate military intelligence in this age of satellite sensors, over-the-horizon radar, and fixed and mobile long-range hydrophones is extremely remote; it strains the imagination to conjure up a scenario where it would have any utility whatsoever. In my view, this is yet another instance of a convention provision that no longer serves the purpose for which it was intended and that adherence to which works at cross purposes with the greater good envisioned by the treaty as a whole. I applaud the U.S. Navy's reported decision to equip *Comfort* with cryptographic communications in January 2003; additionally, however, naval doctrinal publications should be modified accordingly and the international community informed. Lest anyone doubt the legitimacy of its purpose, the U.S. Navy should publicly reaffirm its adherence to the mandate that hospital ships not be utilized for military purposes in any way harmful to a potential adversary. To this end, the right of a principled adversary to board and inspect, and the presence on board of a neutral observer, should, in my view, both be specifically endorsed.

Defensive Arming of Hospital Ships in the War on Terror

Given that existing conventional law is silent with respect to the means that hospital ships may lawfully employ in their own defense, it is somewhat anomalous that the U.S. Navy, and modern navies in general, find the issue so difficult to address. I believe that there are two principal reasons for this hesitance. The first is that protected places, persons, and things historically have been by their very nature vulnerable to attack. This vulnerability, in turn, has been viewed as an assurance of their benign status; consequently, there can be no legitimate reason for a principled adversary to attack them. The personnel, assets, and activities of the ICRC are not intentionally targeted by principled combatants for precisely this reason. Universally respected for the humanity they bring to the face of war, they represent no threat to the belligerents; their ability to function effectively in

harm's way is dependent on this vulnerability. So too, with hospital ships. Intentional attacks on hospital ships in the course of the two world wars were premised on the conviction, mistaken or otherwise, that despite their distinctive markings and protected symbols, they were being employed in a manner harmful to the attacking side—for instance, carrying arms and ammunition, transporting combatant personnel, or transmitting intelligence. Defensive arming of such platforms could contribute to the suspicion that some such nefarious purpose was afoot.

That leads to the second reason for reluctance to give hospital ships defensive armament—that, as suggested earlier, it could be wrongfully employed to thwart legitimate boarding and inspection by the opposing party. Although I am unaware of any such misuse in actual practice, the potential for abuse remains. Clearly, the concept of reciprocity is also at play here. Were the United States to provide its hospital ships with a defensive capability, other states could do so as well, and perhaps with a view to misuse.

Although conventional law provides little guidance on the issue, customary practice has made clear that *any* arming of hospital ships beyond side arms and the like will be viewed with suspicion at best. The *San Remo Manual*'s sanctioning of "deflective means of defense" in hospital ships, such as chaff and flares, is most welcome. However, this timid formulation remains rooted in the concept of vulnerability. This is made clear by its accompanying explanation: "This paragraph is formulated in a way as to leave no doubt that hospital ships can only use deflective means of defence, and not means that could be used in an offensive fashion, such as antiaircraft guns. This is necessary to preserve the obviously innocent nature of the vessel."[74] While the notion that antiaircraft guns installed in hospital ships can plausibly be described as "offensive" gives pause, the manual's point is that vulnerability remains the sine qua non of protection.

Even assuming, for the sake of argument, that there is merit in restricting the defensive capability of hospital ships to "deflective means" during conventional warfare with a principled adversary, such niceties have no place in the war on terror. As noted above, hospital ships are an attractively "soft" target for terrorists.[75] Moreover, contemporary terrorist entities may have access to a variety of weapons and weapons systems, ranging from state-of-the-art surface-to-surface and air-to-surface missiles to unsophisticated but nonetheless deadly explosive devices. With regard to the former, chaff and flares do provide some measure of protection, but it would be irresponsible in the extreme to suggest that they can be relied upon to thwart a missile attack. As to the latter, the effectiveness of unsophisticated weaponry must not be underestimated; witness the destruction of the Marine barracks in Beirut in 1983.

In this instance, the delivery means was an apparently innocent Mercedes Benz stake-bed truck.[76] The explosive mechanism was a gas-enhanced device, probably consisting of bottled propane, butane, or acetylene, placed in proximity to a conventional explosive such as primacord, all of which are readily available on the retail market.[77] Despite the lack of sophistication and ubiquity of its component parts, a gas-enhanced device can be a very lethal weapon. Following the Beirut barracks tragedy, the realization that terrorist organizations have weapons of potentially enormous yield (the Beirut device is estimated to have had the power of over twelve thousand pounds of TNT), deliverable by an ordinary truck or van, led to the emplacement of protective barriers around critical government facilities throughout the United States. The appreciation that such a formidable weapon could also be delivered by a seemingly innocent small boat or aircraft against a target at sea led in early 1984 to specially tailored naval rules of engagement for U.S. forces in the eastern Mediterranean and the Persian Gulf. The attack on the USS *Cole* in Aden, Yemen, on 12 October 2000 is yet another case in point. In that incident a smaller device, apparently consisting of four to seven hundred pounds of C-4 military plastic explosive, detonated in a small boat that had come alongside *Cole*. The blast ripped a forty-by-forty-foot hole in *Cole*'s port side, killing seventeen members of the crew and injuring forty others. Had that attack occurred at sea, *Cole* might have been lost. The small boat that delivered the bomb was similar to the many boats providing various services in the harbor. The attacks both in Beirut and on *Cole* were suicide missions.

The point is that the risk of terrorist attack by a small boat or aircraft against a U.S. Navy hospital ship operating in such waters is very real. Consequently, the decision to place .50-caliber machine guns on *Comfort* prior to her deployment to the Arabian Gulf last year was sound.

That having been said, I believe it would be prudent to install more effective defensive means on U.S. Navy hospital ships. Specifically, and unless operational or manning considerations dictate otherwise, I propose that the Phalanx Close-In Weapons System (CIWS) be placed in *Comfort* or *Mercy* should either be again deployed in support of the war on terror.[78] Despite the curious comment in the explanation accompanying the *San Remo Manual* that antiaircraft weapons are offensive in nature, it is in my view ludicrous to suggest that Phalanx is anything other than defensive.[79]

> Phalanx provides ships of the U.S. Navy with a "last-chance" defense against anti-ship missiles and littoral warfare threats that have penetrated other fleet defenses. Phalanx automatically detects, tracks and engages anti-air warfare threats such as anti-ship missiles and aircraft, while the Block 1B's man-in-the-loop-system counters the emerging littoral warfare threat. This new threat includes small, high-speed surface craft, small terrorist aircraft, helicopters and surface mines.[80]

The Phalanx weapons system is essentially a Gatling gun capable of firing 20 mm rounds at a rate of 4,500 per minute. While its effective range is classified, its purpose, as noted, is to stop close-in, penetrating threats.

The placement of .50-caliber machine guns and the Phalanx CIWS in U.S. Navy hospital ships obviously would constitute a departure from the "safety in vulnerability" mind-set that heretofore has characterized our approach to the problem. I believe that these self-defense systems will not only enhance the capability of the platform to defeat a terrorist attack but provide a deterrent effect by announcing to terrorist entities that a U.S. Navy hospital ship may not be as "soft" a target as generally supposed. I therefore also propose that the United States then notify the international community that necessary and appropriate defensive means, namely Phalanx and .50-caliber machine guns, have been installed in both *Comfort* and *Mercy*. I further suggest that the United States again confirm its intentions to abide fully with the right of a principled adversary to board and inspect U.S. Navy hospital ships during international armed conflict. Moreover, doctrinal publications should be revised to reflect the view that the defensive arming of hospital ships is fully consistent with both the letter and the spirit of the law of armed conflict.

When one considers the impressive humanitarian capability of the *Mercy*-class hospital ship and the enormous psychological damage, let alone the cost in human lives, that would be incurred if one should be lost to terrorist attack, the case for state-of-the-art defensive capability seems apparent. The case against rests not on any specific proscription of conventional law but upon adherence to a vulnerability philosophy wholly unsuited to the realities of modern warfare at sea generally or of the war on terror in particular. Heintschel von Heinegg makes the very salient point that:

> the law of naval warfare contains no rule or other provision that would justify the conclusion that a belligerent is obliged to suffer an illegal attack or other illegal act and to remain passive. In other words: the inherent right of self-defence that is not abolished by any known legal order is implicitly recognized also by the law of naval warfare. Accordingly, if there exist reasonable grounds for suspicion that hospital ships will be the target of an illegal attack, a belligerent is entitled to take all necessary measures to effectively prevent or counter that attack. If the only means available to achieve that aim is the—defensive—arming of a hospital ship then this would not constitute a violation of the law of naval warfare.[81]

The "Opt-Out" Option

Should the foregoing proposals prove politically unrealizable in the face of criticism by traditionalists unwilling to depart from practices and policies fashioned for a bygone era, serious consideration should be given to "opting out." By this I mean abandonment of the protections accorded to hospital ships by the 1949

Geneva (II) Convention. Much as the Royal Navy has done with RFA (Royal Fleet Auxiliary) *Argus, Comfort* and *Mercy* could be painted haze gray and designated as primary casualty receiving and treatment platforms rather than as hospital ships.[82] The Royal Navy, apparently concluding that the emplacement of cryptographic communications equipment and defensive armament in *Argus* would be inconsistent with conventional or customary law, elected not to rate *Argus* as a hospital ship within the meaning of the 1949 Convention. Instead, the ship is configured as a "highly versatile, self-defending and helicopter-capable PCRS [Primary Casualty Recovery Ship] rather than a dedicated HAS [Hospital Ambulance Ship] . . . [that] must be declared under the Geneva Convention, must be open to regular inspection, and cannot embark any military capability (even self-defense weapons) of any kind."[83]

As noted above, a vessel devoted exclusively to the care and transport of the wounded, sick, and shipwrecked, and recognized by a principled adversary as such, is not subject to intentional attack no matter what its color scheme.[84] It therefore would still be prudent to notify the international community of the vessel's name and characteristics and to make it available for boarding and inspection by a principled adversary.

I do not advocate "opting out" as the preferred solution, whether during the war on terror or in conventional conflict with a principled adversary. However, should it be determined that effective defensive capability cannot, for whatever reason, be emplaced in hospital ships, it would be prudent to give that option very serious consideration. Hospital ships adorned with white paint and displaying the protective symbol of the red cross or red crescent have a moral majesty about them that evokes the best of our humanity, even in the depths of destruction and despair that so often accompany armed conflict. That is most certainly worth hanging on to—but one must ask, "At what cost?"

NOTES

1. Jean Simon Pictet (1914–2002, scholar of international and humanitarian law, and a leading member of the International Committee of the Red Cross) noted that "Many centuries before our era, the Athenian fleet included a vessel called *Therapis,* while in the Roman fleet was a ship bearing the name *Aesculapius.* Their names have been taken by some authors as indicating that they were hospital ships." Jean Simon Pictet et al., *Commentary on the Geneva Conventions of 12 August 1949, II Geneva Convention for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea* (Geneva: International Committee of the Red Cross, 1960), p. 154.
2. Ibid.
3. Ibid.
4. The convention was signed at Geneva 22 August 1864, entered into force 22 June 1868, and acceded to by the United States on 1 March 1882. Dietrich Schindler and Jiri Toman, eds., *The Laws of Armed Conflict: A*

Collection of Conventions, Resolutions and Other Documents, 3d rev. ed. (Dordrecht, Neth.: Martinus Nijhoff, 1988), p. 279.

5. Signed at Geneva 20 October 1868. Did not enter into force. Schindler and Toman, p. 285.
6. Ibid., Art. 9.
7. Signed at The Hague 29 July 1899, entered into force 4 September 1900, and ratified by the United States 9 April 1902. Schindler and Toman, p. 63.
8. Signed at The Hague 29 July 1899, ratified by the United States 4 September 1900, and entered into force 4 September 1900. Ibid., p. 289.
9. Howard S. Levie, *The Code of International Armed Conflict* (Dobbs Ferry, N.Y.: Oceana, 1985), vol. 2, p. 1024.
10. The United States Naval War Code of 1900 was issued in accord with General Order No. 551, Navy Department, Washington, D.C., 27 June 1900, which states: "The following code of naval warfare, prepared for the guidance and use of the naval service by Capt. Charles H. Stockton, United States Navy, under direction of the Secretary of the Navy, having been approved by the President of the United States, is published for the use of the Navy and for the information of all concerned." See *International Law Discussions: The United States Naval War Code of 1900,* International Law Studies 3 (Newport, R.I.: Naval War College, 1903), p. 101. Captain Stockton was then President of the Naval War College.
11. Amos S. Hershey, *The International Law and Diplomacy of the Russo-Japanese War* (New York: Macmillan, 1906), pp. 304–306.
12. See L. Oppenheim, *International Law: A Treatise,* ed. Hersh Lauterpacht, 7th ed. (London: Longmans, Green, 1952), vol. 2, p. 505; G. H. Hackworth, *Digest of International Law* (Washington, D.C.: U.S. Government Printing Office, 1943), vol. 6, pp. 460–61; *International Law Situations,* International Law Studies 35 (Newport, R.I.: Naval War College, 1935), pp. 107–108.
13. Signed at The Hague 18 October 1907, ratified by the United States 27 November 1909, and entered into force 26 January 1910. Schindler and Toman, p. 313. O'Connell noted that the 1907 Hague (X) Convention distinguishes between three separate classes of hospital ships—those constructed or designed by belligerent States for that specific purpose, those outfitted by private individuals or "officially recognized relief societies" of belligerent nationality, and those so equipped by such individuals or societies of neutral nationality. D. P. O'Connell, *The International Law of the Sea,* ed. I. A. Shearer (Oxford, U.K.: Clarendon, 1984), vol. 2, p. 1119. In reality, this trinity of classification can be traced to the Additional Articles of 1868, as well as the 1899 Hague Convention (III). Given the focus of this enquiry on military hospital ships, the latter two categories will not be further addressed.
14. This formulation may also be found in Article 44 of the 1913 *Oxford Manual,* "The Laws of Naval War Governing the Relations between Belligerents." For the full text of the 1913 *Oxford Manual* see Schindler and Toman, p. 857.
15. Persia ratified the 1907 Hague (X) Convention but reserved the right to employ the lion and red sun in lieu of the red cross. Similarly, Turkey reserved the right to employ the red crescent for that purpose. Schindler and Toman, p. 320.
16. Signed at Geneva 27 July 1929, ratified by the United States 4 February 1931, and entered into force 19 June 1931. Schindler and Toman, p. 325. Among the revisions of the convention relative to the distinctive emblem to be used to identify hospitals and other medical facilities on land is the formal recognition in article 19 of the lion and red sun, as well as the red crescent, as accepted alternatives to the red cross.
17. Signed at Geneva 27 July 1929, ratified by the United States 4 February 1931, and entered into force 19 June 1931. Schindler and Toman, p. 339.
18. Robert W. Tucker, *The Law of War and Neutrality at Sea,* International Law Studies 50, (Newport, R.I.: Naval War College, 1955), p. 117; Natlino Ronzitti, ed., *The Law of Naval Warfare* (Dordrecht, Neth.: Martinus Nijhoff, 1988), p. 534.
19. J. C. Mossop, *British Year Book of International Law* (Oxford, U.K.: Oxford Univ. Press, 1947), vol. 24, p. 399. Tucker, *The Law of War and Neutrality at Sea,* comments that "dissatisfaction with a number of the provisions of

Hague X, and an awareness of the necessity for its revision and expansion to account more satisfactorily for changing conditions, had been expressed even before the close of the 1914 war. During the second World War this need for revising and expanding the provisions of Hague X became even more clearly apparent, despite the efforts already made by the belligerents to interpret and adapt the Convention to some of the novel circumstances characterizing modern naval warfare."

20. One such varying interpretation involved the issue of warship escort of hospital ships. The Allied position adopted during the Second World War was that a hospital ship does not forfeit its immunity from attack when so escorted, although it would thereby be exposed to greater risk of unintentional targeting. Noting that warship escort would preclude enemy boarding and inspection to ensure compliance with the 1907 Hague (X) Convention, the German government reached the opposite conclusion—that a hospital ship loses its protected status if it accepts warship (or military aircraft) escort. See Mossop, *British Year Book of International Law,* p. 402. But see Burdick H. Brittin, *International Law for Seagoing Officers,* 4th ed. (Annapolis, Md.: Naval Institute Press, 1981), pp. 245–46, for an account of the intentional torpedoing of the Japanese ship *American Maru* by the USS *Nautilus*. The *American Maru,* which had been officially designated as a hospital ship, was encountered in a convoy sailing from the Marianas to Japan. The commanding officer of *Nautilus* later argued that because the hospital ship was not proceeding alone, it forfeited protection under the convention.

    For an interesting compilation of regulations pertaining to maritime warfare promulgated by various nations and in force during World War I, see *International Law Documents: Regulation of Maritime Warfare,* International Law Studies 25 (Newport, R.I.: Naval War College, 1925). Regulations as to hospital ships (pp. 94–97) suggest that the 1907 Hague (X) Convention provisions on the subject were often incorporated directly into the general orders and manuals issued to fleet units.

21. The announcement stated that because British hospital ships were being used for military purposes, the German government "would be entitled to free themselves altogether from the obligations contained in the [1907 Hague (X)] Convention." However, for "reasons of humanity" they did not do so, instituting instead a maritime barred area in which enemy hospital ships "will be considered as belligerent and will be attacked without further consideration." See *International Law Situations,* International Law Studies 35 (Newport, R.I.: Naval War College, 1935), pp. 110–11. For a fully developed account of the institution in 1917 of the unrestricted U-boat campaign waged by Germany in World War I and the events leading to it, see Nigel Hawkins, *The Starvation Blockades: Naval Blockades of World War I* (Barnsley, South Yorkshire, U.K.: Leo Cooper, 2002), pp. 191–207.

22. Leon Friedman, comp., *The Law of War: A Documentary History* (New York: Random House, 1972), vol. 1, p. 868.

23. Ibid., p. 870.

24. *International Law Situations,* p. 108.

25. The Geneva (II) Convention for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea, signed at Geneva 12 August 1949, entered into force 21 October 1950, and ratified by the United States 2 August 1955. Schindler and Toman, p. 401.

26. Mossop, *British Year Book of International Law,* p. 402.

27. An example of the latter was reflected in a news report filed from Okinawa on 29 April 1945: "Violating the rules of war as written at the Geneva Convention in 1906 [*sic*], the fully lighted hospital ship *Comfort* was hit by a [Kamikaze] suicide plane as she departed Okinawa en route to Guam. . . . With no guns aboard except those needed for saluting and line throwing, her broad green band and big red cross easily discernible against her glistening white-enameled hull, [*Comfort*] was turned into an inferno." See Walter Karig et al., eds., *Battle Report: Victory in the Pacific* (New York: Rinehart, 1949), vol. 5, p. 438.

28. See Brittin, *International Law for Seagoing Officers,* pp. 218–19. Following the attack on the USS *Comfort* off Okinawa the following April (note 27 above), Admiral Smith was directed by Commander in Chief Pacific to dispatch a

destroyer to intercept a Japanese hospital ship on its emergence from Marcus Island to ensure that it was not in violation of the rules of the 1907 Hague (X) Convention. Admiral Smith subsequently reported: "The destroyer *Case* intercepted the ship. An inspection party, headed by the executive officer, was well received aboard the hospital ship, and allowed to make a thorough inspection. He found everything in perfect order. The ship had nothing aboard except a full load of hospital cases evacuated from Marcus Island" (ibid.). A similar example of the role played by reciprocity concerns in the Pacific campaign stemmed from an incident in the European theater. The German hospital ships *Tubingen* and *Gradisca* passed through Allied lines in the Adriatic to succor wounded and sick troops from Salonica. Allied forces diverted the outbound ships to Allied ports and removed some four thousand patients as prisoners of war. Mossop noted that many were only slightly wounded and most would likely be fit for duty within a year. He added, "This action brought forth no protest from the German Government, who considered it justified by the terms of the Convention. But curiously enough it did not pass without criticism in the higher councils of the Allies—Criticism possibly provoked not so much by legal considerations as by fear that the Japanese might be tempted to initiate similar action against Allied hospital ships in the Pacific theatre" (Mossop, *British Year Book of International Law,* p. 405).

29. Marjorie Whiteman, *Digest of International Law,* Publication 8367 (Washington, D.C.: U.S. State Department, 1968), vol. 10, p. 637.

30. Ibid.

31. Mossop, *British Year Book of International Law,* p. 401.

32. Ibid. See also Spaight's comments on German air attacks on hospital ships in World War II: "They [Germany] certainly began the attacks on hospital ships. The first of such attacks took place at Aalesund in April, 1940, when the *Brand IV* was bombed. Other hospital ships were attacked during the evacuation from Dunkirk at the end of May. There were subsequent incidents of the same kind, both in European waters and in the Far East. It is unlikely that the attacks were made deliberately. They were probably due to error and to the airmen's ignorance of the identity of the vessels which became their victims" J. M. Spaight, *Air Power and War Rights,* 3d ed. (London: Longmans, Green, 1947), p. 490.

33. The 1949 Geneva (II) Convention is one of four treaties that are collectively referred to as the "1949 Geneva Conventions." The other three are Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field; Convention (III) Relative to the Treatment of Prisoners of War; and Convention (IV) Relative to the Protection of Civilian Persons in Time of War. All four were signed at Geneva 12 August 1949, entered into force 21 October 1950, and were ratified by the United States 2 August 1955. For the full text of the Conventions see Schindler and Toman, pp. 373, 401, 423, and 495, respectively.

34. Schindler and Toman, p. 401.

35. Article 22.

36. Pictet, *Commentary,* p. 180. See also note 20 above.

37. Pictet, *Commentary,* p. 180.

38. Ibid., p. 193. This comment clearly focuses on the use of secret codes in the *transmission* of information by hospital ships. Indeed, an argument can be made that when comparing the English-language version of Article 34 with the equally authentic French and Spanish versions, the latter indicate that only the use of such codes for the transmission of communications was intended to be proscribed. For a discussion of this argument, see W. E. M. Heintschel von Heinegg, "The Law of Armed Conflict at Sea," in *The Handbook of Humanitarian Law in Armed Conflicts,* ed. Dieter Fleck and Michael Bothe (New York: Oxford Univ. Press, 1995), p. 1058.

39. See note 12 above.

40. Philippe Eberlin, "Identification of Hospital Ships and Ships Protected by the Geneva Conventions of 12 August 1949," *International Review of the Red Cross* 315 (November–December 1982), pp. 324–25.

41. Pictet, *Commentary,* p. 287.

42. In this context, the term "crew members" includes hospital-ship personnel as well as personnel manning sick bays in warships and in other auxiliaries.

43. "Apparatus" includes not only communications equipment but also radar transponders, signaling devices, flares, and the like.

44. This would include the resupply and remanning of medical facilities both at sea and ashore, as well as, presumably, their retrograde. Vessels other than hospital ships engaged exclusively in the transport of such equipment also enjoy protection under the convention (article 38), provided that the adverse party has been notified of, and has agreed to, the particular voyage.

45. For a discussion of the difficulty of discerning red crosses on hospital ships at a distance see Eberlin, "Identification of Hospital Ships," pp. 318–21.

46. Entered into force 7 December 1978. Schindler and Toman, p. 621. The United States is neither a signatory nor a party to Additional Protocol I. The rationale for the U.S. decision not to sign or ratify Additional Protocol I is contained in Senate Treaty Document 100-2, reprinted in 26 *International Legal Materials* 561 (1987).

47. Article 49(3). See also Yves Sandoz et al., eds., *Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949* (Geneva: Martinus Nijhoff for the International Committee of the Red Cross, 1987), pp. 600–608.

48. Article 7 is discussed in ibid., pp. 1215–19.

49. The SSR system is briefly described in ibid., p. 1249. Basically, the SSR utilizes the military IFF (Identification Friend or Foe) system, which consists of a primary radar, a secondary interrogator surveillance radar, and a transponder. The primary radar, installed on the seeking ship or aircraft, sweeps the horizon with electromagnetic pulses. When a pulse encounters an object an echo is bounced back, allowing the object to be detected. If the object is a ship or aircraft equipped with a transponder, the primary radar pulse will trigger an automatic transmission of the detected ship or aircraft's identification code. A full description of the IFF technology may be found in Trevor Dupuy, ed. in chief, *International Military and Defense Encyclopedia* (Washington, D.C.: Brassey's, 1993), vol. 3, pp. 1239–41.

50. The text of Annex I, as amended, may be found at the ICRC homepage, www.icrc.org. For a further discussion of the provisions of chapter 3 of Annex I, see Louise Doswald-Beck, ed., *San Remo Manual on International Law Applicable to Armed Conflicts at Sea, Prepared by International Lawyers and Naval Experts Convened by the International Institute of Humanitarian Law* (Cambridge, U.K.: Cambridge Univ. Press, 1995), pp. 237–41.

51. Heintschel von Heinegg, "The Law of Armed Conflict at Sea," p. 478.

52. Introductory Note, *San Remo Manual,* p. 5.

53. See note 38 above and accompanying text.

54. *San Remo Manual,* p. 236.

55. 1907 Hague (X) Convention, Article 8; 1949 Geneva (II) Convention, Article 34.

56. To my knowledge, there is no historical record of an actual employment by a hospital ship of weapons or weapons systems to prevent lawful boarding and inspection by an opposing force. Nonetheless, the possibility of such abuse seems to foster concern in some quarters.

57. See, for example, U.S. Navy Dept., *The Commander's Handbook on the Law of Naval Operations,* Naval Warfare Publication (NWP) 1-14M (Washington, D.C.: 1995). Paragraph 8.2.3 provides that "hospital ships may not be armed although crew members may carry light individual weapons for the maintenance of order, for their own defense and that of the wounded, sick and shipwrecked."

58. *San Remo Manual,* p. 235.

59. U.S. Navy Dept., *Hospital Ships,* Navy Tactics, Techniques, and Procedures Publication (NTTP) 4-02.6 (Washington, D.C.: February 2004), para. 2.1.1.

60. Ibid., para. 2.2.

61. Hospital ships are vessels of the Military Sealift Command and carry the designation "USNS" (U.S. Naval Ship). When in the active inventory they are "in active service," vice "in commission" (see 32 CFR 700.406[c]). U.S. Navy hospital ships are assigned "benevolent" names in keeping with their purely humanitarian function. The U.S. Navy has, of course, other afloat medical facilities. As an example, the *Wasp*-class amphibious assault ships (LHDs), of which seven are currently in

commission with an eighth under construction, boasts a formidable medical capability: "The ships have six fully equipped operating rooms and a 600-bed hospital, by far the largest at sea with the exception of hospital ships. The LHD 1 has medical and dental facilities capable of providing intensive medical assistance to 600 casualties, whether combat incurred or brought aboard ship during humanitarian missions. The corpsmen also provide routine medical/dental care to the crew and embarked personnel. Major medical facilities include four main and two emergency operating rooms, four dental operating rooms, x-ray rooms, a blood bank, laboratories, and patient wards. In addition, three battle dressing stations are located throughout the ship, as well as a casualty collecting area at the flight deck level. Medical elevators rapidly transfer casualties from the flight deck and hangar bay to the medical facilities" (*LHD-1 Wasp Class,* www.globalsecurity.org/military/systems/ships/lhd-1.htm).

62. See Stephen Saunders, ed., *Jane's Fighting Ships,* 2003–2004 (Coulsdon, Surrey, U.K.: Jane's Information Group, 2003), p. 857; Norman Polmar, ed., *The Naval Institute Guide to the Ships and Aircraft of the U.S. Fleet,* 17th ed. (Annapolis, Md.: Naval Institute Press, 2001), pp. 257–58.

63. See "Hospital Ships: T-AH," 15 September 2003, *United States Navy Fact File,* www.chinfo.navy.mil/navpalib/factfile.

64. See "Bringing Comfort to New York in Time of Need," 19 September 2001, *Navy & Marine Corps Medical News,* www.chinfo.navy.mil/navpalib/news.

65. See *U.S. Navy Press Release: Navy Hospital Ship USNS Comfort to return from Operation Iraqi Freedom,* 10 June 2003, available at www.msc.navy.mil/NOOp/pressrel.

66. NTTP 4-02.6, para. 4.2.1.

67. See notes 48 and 49 above and accompanying text.

68. Author's conversation with master of USNS *Comfort,* April 2004.

69. NTTP 4-02.6, para. 4.4.2. This prohibition on cryptographic communications, as it pertains to the transmission of encrypted messages during armed conflict, is also set forth in NWP 1-14M, para. 8.2.3, which provides, in pertinent part, that "use or possession of cryptographic means of transmitting message traffic by hospital ships is prohibited under current law." The Annotated Supplement to the handbook includes the following comment on this provision: "GWS-Sea [1949 Geneva (II) Convention], art. 35(2), authorizes hospital ships to carry and employ communications equipment necessary for their movement and navigation. GWS-Sea, art. 34, however, restricts the use of cryptographic means of communication. The English language version of art. 34 implies that the possession or use of such means for both *sending* and *receiving* encrypted communications is prohibited. The equally authentic Spanish and French texts of art. 34(2), however, prohibits only the *sending* ('pour leurs emissions') of encrypted traffic. . . . The requirement that hospital ships must transmit in the clear is undergoing critical review in various international fora and it is anticipated that this prescription will eventually be either relaxed or abandoned" (*Annotated Supplement to the Commander's Handbook on the Law of Naval Operations* [Newport, R.I.: Naval War College, 1997], p. 8-15, available at www.nwc.navy.mil/ILD/Annotated%20Supplement%20to%20the%20Commander's%20Handbook.htm).

70. Michael Sirak, "U.S. Navy Seeks to Revise Laws of War on Hospital Ships," *Jane's Defence Weekly,* 19 August 2003.

71. NTTP 4-02.6, para. 4.5. See also NWP 1-14M, para. 8.2.3.

72. Sirak, "U.S. Navy Seeks to Revise Laws of War on Hospital Ships."

73. See NWP 1-14M, para. 11.9.7, which states, "When objects or persons are readily recognized as being entitled to protected status, the lack of protective signs and symbols does not render an otherwise protected object or person a legitimate target. Failure to utilize internationally agreed protective signs and symbols may, however, subject protected persons and objects to the risk of not being recognized by the enemy as having protected status." See also Sandoz et al., eds., *Commentary on the Additional Protocols:* "These provisions [of Article 23 of Protocol I pertaining to coastal rescue craft] on marking are laid down only in the form of recommendations. . . . [T]hus ships and craft covered by Article 23 are protected even when they are not marked, though

in this case they obviously run the risk of sustaining damage due to mistaken identity" (p. 266).

74. *San Remo Manual,* p. 235.

75. In a recent example of the tragic results that can ensue from failure to appreciate the willingness of terrorists to hit "soft" targets that pose no threat to them, the United Nations headquarters in Baghdad was destroyed on 19 August 2003 by a car packed with explosives, killing twenty-two people and wounding more than 150 others. Following an exhaustive investigation into that attack, Secretary-General Kofi Annan fired his chief of global security, who was found to have been "blinded by the conviction that U.N. personnel and installations would not become a target of attack, despite clear warnings to the contrary." See "Five Penalized by U.N. Chief in Iraq Bombing," *New York Times,* 30 March 2004, p. A11.

76. Use of a seemingly benign vehicle to deliver a terrorist explosive device is also seen in the destruction of the Khobar Towers residential complex in Dhahran, Saudi Arabia, on 25 June 1996, which claimed the lives of nineteen Americans and wounded 372 others. In that instance, a tanker truck was loaded with an estimated five thousand pounds of plastic explosives, parked adjacent to the facility, and detonated. See *U.S. Department of Justice Press Release of 21 June 2001,* available at www.fbi.gov/pressrel/pressrel01/khobar.htm.

77. See *Report of the DOD Commission on Beirut International Airport Terrorist Act, October 23, 1983* (also known as the Long Commission Report), 20 December 1983, part 6, sec. 1, available at www.ibiblio.org/hyperwar/AMH/XX/MidEast/Lebanon-1982-1984/DOD-Report/.

78. I assume, and certainly recommend, that should Phalanx be installed in *Comfort* or *Mercy,* a military detachment would be embarked for that purpose. For a comprehensive discussion of the placement of defensive armament on USNS vessels and the embarking of military personnel to serve them, see *MSC* [Military Sealift Command] *Attorney's Deskbook: Topic—The Law of Armed Conflict as It Applies to MSC,* MSC internal publication, revised 6 July 2003.

79. *San Remo Manual,* p. 235.

80. See "Phalanx Close-In Weapons System," *Defense Daily Program Profiles,* www.defensedaily.com/progprof/navy/wep-phal.html.

81. W. E. M. Heintschel von Heinegg, "Current Legal Issues in Maritime Operations: Maritime Interception Operations in the Global War on Terrorism, Exclusion Zones, Hospital Ships and Maritime Neutrality," in *Israeli Yearbook of Human Rights* [forthcoming].

82. See David Foxwell and Rick Jolly, "The RFA *Argus:* A Gas-Tight, Floating Field Hospital," *International Defense Review* 24, no. 2 (1992), pp. 116–17.

83. Ibid.

84. See note 73 above. See also *San Remo Manual,* p. 241, para. 173: "These means of identification [distinctive signals] are intended only to facilitate identification and do not of themselves confer protected status." The explanation accompanying this paragraph adds: "The exemption from attack or capture of medical vessels is based on their function, namely, that their purpose is to rescue the shipwrecked and to give medical care to the sick and wounded. It is in order to give protection to these categories of persons that protection from attack and capture is given to the vessel, subject to certain procedures and regulations that have been instituted in order to assure the *bona fide* use of these vessels." Of course, U.S. Navy ships that are not devoted exclusively to humanitarian pursuits are not immune from attack no matter how formidable the medical-care capability—the *Wasp*-class LHDs being a case in point (see note 61 above).