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## RESEARCH & DEBATE

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### HAS THE RED CROSS–ADORNED HOSPITAL SHIP BECOME OBSOLETE?

*Arthur M. Smith*

Those responsible for casualty management in littoral conflicts must weigh multiple variables such as: the enemy’s war-fighting strategies and tactics; the types of weapons systems used by the enemy; the complexity of the kinds of wounds and diseases commonly encountered during armed conflict; and the availability of resources to effectively treat those conditions.

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Despite Richard Grunawalt’s plea (see “Hospital Ships in the War on Terror: Sanctuaries or Targets?” *Naval War College Review*, Winter 2005, pp. 89–119) to arm “protected” hospital ships during littoral warfare with encrypted communications, machine guns, defensive chaff, and Phalanx missiles, the reality remains that air-, sea-, and ground-launched missiles, as well as mines and other weapons, will create a future tactical environment of unparalleled complexity insofar as land, sea, and air interaction is concerned, which eventually may impede the timely evacuation and medical management of the wounded. Irrespective of Grunawalt’s suggestions, therefore, during future military contingencies an operational commander may well determine that traditional medical treatment and evacuation ships will no longer benefit from the mantle of “privileged immunity” and for purposes of protection mandate them to assume unmarked anonymity; their only other option—geographic separation—would be counterproductive to the principal

mission of forward casualty support. Consequently, we should not necessarily expect dedicated “protected” hospital ships, as we now know them, to be readily available to every task force entering dangerous littoral waters.

#### “OVER THE HORIZON”: IN THE LITTORALS

If lives are to be sustained during future “over the horizon” and “ship to objective” amphibious operations, those who emphasize direct insertion of forces from an afloat sea base to an objective hundreds of miles inland without the establishment of a lodgment ashore must ensure that unique and effective scenario-dependent medical support is available at the tactical level. In addition, if the wounded are to survive, there should be innovative capabilities for their movement within the combat and communications zones, intratheater, that will accommodate the reality that medical treatment must be sustained while in transit. Tactical analysis suggests that medical support at the tactical level will be implemented predominantly using aviation-based evacuation assets. Furthermore, what is needed to satisfy the medical requirements in any littoral conflict is equally dependent upon the availability of a safe and effective strategic medical evacuation plan to medical facilities outside the zone of conflict. Recent experiences in Afghanistan and Iraq, as well as the revelation of uncertain security at terrorist-prone littoral anchorages and berthing facilities, again suggest that evacuation by air will be the preferred mode of casualty transport. These considerations may render obsolete the entire discussion of the Geneva Convention that formally protected hospital ships.

#### VARIABLE UTILIZATION OF AFLOAT MEDICAL ASSETS

Historically, varying forms of medical care facilities, in addition to an array of casualty transportation assets, have been utilized within both tactical and strategic phases of combat operations. Grunawalt’s detailed exposition clearly articulates the history of the many treaties, conventions, and protocols that apply to international armed conflicts, some of which are dedicated to respecting and protecting the immunity of hospital ships.

Yet history provides many examples of innovative medical adaptations to changing tactical and strategic requirements, only some of which were specifically dependent upon “protected neutrality.” Not only was the decision to convert some but not all of these casualty-care adaptations to a status of “neutral,” as defined by international conventions, clothed in the context of the prevailing war-fighting strategy, but operational commanders had duly recognized the perceived intent of the enemy either to recognize or disregard the same criteria. A familiarity with selected elements of medical support carried out during twentieth-century conflicts will provide a background for better understanding

the range of support options operational commanders might select during future conflicts.

#### TACTICAL AND STRATEGIC MEDICAL EVACUATION BY SEA DURING WORLD WAR II: SELECTIVE UTILIZATION OF ASSETS

During World War II amphibious operations, and in subsequent landings at Inchon, Korea, “grey hull” tank landing ships (LST) were converted into an important component of the medical care system—the LST(H). Modified for surgical support of limited scope, these ships were primarily used by forward surgical teams to stabilize the wounded. Given the intensity of the warfare and the shortage of true hospital ships, LST(H)s became essential in providing quick, early, lifesaving treatment for the combat wounded in forward locations. In operational settings where larger hospital transports were available, the transports were often withdrawn at nightfall due to lack of air cover. The battle of Leyte Gulf in 1944 demonstrates the benefit of beaching these “unprotected” surgical LSTs after unloading. Planners saw the value of holding one or two in reserve, to commit to beaches that were overwhelmed with casualties or without medical facilities. During the operations at Lingayen Gulf in 1945, six LST(H)s with embarked surgical teams were beached to provide casualty care. At Normandy, all LSTs were furnished to handle returning casualties; fifty-four were outfitted to perform surgery. Others were subsequently equipped to serve as casualty-control ships, regulating the backflow of the wounded to rear facilities afloat and ashore. One was even made a floating blood bank. Such hospital LSTs were able to provide sophisticated surgical care in a relatively safe environment close to shore. Operating without Geneva Convention protection, they performed effectively, even under fire at Iwo Jima and Okinawa.

Another scenario-driven innovation of World War II included the utilization of three grey-hull medically modified personnel transport vessels (APH). The attack personnel transport (APA), although not designed or properly equipped for handling casualties, often bore the brunt of the initial load from beach assaults—for example, at Iwo Jima. The use of APHs was considered desirable in an amphibious attack, because this type of ship could carry assault forces inbound, had a complete staff of specialists, and had a large sick bay so that specialized treatment could be provided. The APH had about eight medical officers and a bed capacity of over a thousand. These ships were held in the “transportation area” of the assault force as evacuation ships. When bed capacity was reached, the ship sailed, to prevent exposure to air attacks. As a general rule, the ships withdrew out to sea at night, but on occasion they remained anchored a thousand yards offshore, protected by a smoke screen.

Responding to command requirements, as defined by Admirals William F. Halsey, Jr., and Chester Nimitz, yet another innovation, near the end of the war, was the development of twenty-plus protected U.S. Army-staffed hospital ships on tanker and freighter hulls, as well as the construction of a smaller number of rapidly produced Navy hospital ships.

At Leyte Gulf, it became apparent that floating hospitals were urgently needed at the objective, especially during the night, when they were under orders to retire. When two APAs arrived, they were summarily designated as casualty-receiving ships and stationed offshore to provide hospitalization at night. Small escort patrol craft (PCE[R]) were also utilized, ad hoc, as rescue transport vehicles for casualty evacuation.

The large number of wounded at Iwo Jima emphasized the need for many medical support ships, two of which were USS *Samaritan* (AH 10) and *Solace* (AH 5), augmented by *Pinckney* (APH 5), *Bountiful* (AH 5), and a “reserve hospital ship,” the vehicle landing ship *Ozark* (LSV 2). Their only assigned function was transportation and en-route care of the sick and wounded. While the use of AHs was highly desirable, they could not go into the transport area until D-day plus-1 or later, and it was seldom possible for them to receive casualties directly from the beaches. Their main function was to relieve overloaded transports of casualties and evacuate them to base hospitals.

In April 1945 the invasion of Okinawa began. Enemy planes attacked three hospital ships. The USS *Relief* was attacked on 2 April, as was *Solace* on 20 April, but no damage was done. The only ship to suffer major damage and casualties was USS *Comfort*. On 28 April, while steaming away from the scene of combat, fully lighted in accordance with Geneva Convention protections, *Comfort* was hit amidships by a kamikaze, resulting in twenty-two killed, eleven wounded, and nineteen missing. The other ships, lying in close support, just off the landing beaches and within the protected ring of picket ships and transport area defenses, suffered no significant damage. Nevertheless, hospital ships continued to perform regular shuttle trips to hospitals in the Marianas.

#### UNIQUE UTILIZATION OF HOSPITAL SHIPS

From the earliest days of the Korean fighting, U.S. Navy hospital ships served as seaborne ambulances, and later as mobile hospitals. After the early service of the British vessel HMHS *Maine*, and the later arrival of the Danish *Jutlandia*, five such ships provided an unusual and successful addition to rear-area medical resources. While their original mission was to transport patients, giving care en route, Korean conditions made them far more valuable as floating hospitals. Patients were loaded aboard either by winching up litters directly from the docks or from lighters at sea, or from helicopters landing on the ships' decks. (This was

preceded by the lashing of helicopter landing floats on the sides of hospital ship USS *Haven* in Inchon harbor, to facilitate direct rotary-wing air transport of casualties to hospital ships without flight decks.)

Since strategic evacuation routes were primarily directed toward Japan, movement by air was considered preferable, because of the inconvenience to patients caused by a sea voyage. The result was the unique decision to leave hospital ships in Korean ports for considerable lengths of time. The ships became a new form of mobile hospital in Korean waters, shifting about the Korean coast as needed: sometimes supporting the Inchon invasion—for example, USS *Consolation*; occasionally doing service in Japan; or by aiding the Hungnam, North Korea, evacuation. By the end of September 1952, admissions to the three Navy hospital ships nearly totaled 40,662, about 35 percent wounded in battle. In addition, while in port, these ships could conduct a clinic just as capably as a land-based conventional hospital. A large number of outpatients were treated aboard hospital ships, possibly equal to the total number of inpatients cared for aboard ship.

## VIETNAM

The Vietnam War provided an ideal geographic setting and combat scenario for hospital ships—intermittent low-level warfare with the combat zone adjacent to the sea, in a long, narrow country with a substantial length of coastline. In addition, because of the air superiority enjoyed by U.S. forces, the helicopter was used extensively—the ideal medical evacuation system for hospital ships. The enemy lacked, or refrained from using, artillery or rockets to interdict the two red cross–marked U.S. hospital ships *Sanctuary* and *Repose*. They sailed freely, immediately offshore, seemingly immune from hostile activity.

## FALKLANDS: THE UNIQUE TRUE TEST OF PROTECTED NEUTRALITY

The Falklands campaign afforded an opportunity to analyze both the benefits and disadvantages of protected neutrality established between both adversaries while concurring with international agreements.

Immediately prior to the British Falklands invasion, the Royal Navy requisitioned the luxury liner SS *Canberra* and rapidly converted it into a troop carrier, equipped with a major surgical facility. Plans called for it to receive casualties after unloading, even though *Canberra* did not qualify for neutrality by virtue of having traveled with combatant-ship escorts and transported both troops and combat equipment to the theater (similar to the APH concept in World War II). However, the lack of protected neutrality was felt to be an advantage, since troops could be successfully treated and returned to the field directly—

something prohibited from protected hospital ships. Unfortunately, as a result of fierce Argentine aerial attacks upon the fleet supporting the landing force, it was necessary to remove the unarmed *Canberra* from the San Carlos operational area.

Concurrently, in 1982 the Royal Navy secured the rapid modification of the commercial P&O cruise ship SS *Uganda* into a capable hospital ship. It sailed to the Falklands operating area unescorted by combatants, with sustained appropriate identification in accordance with international conventions. At Britain's suggestion, but with no special written agreement, the opposing parties established a neutral zone on the high seas, to the north of the islands, known as the "Red Cross Box." *Uganda* subsequently operated within this zone, twenty nautical miles on a side, along with Argentine casualty assistance vessels, and periodically implemented casualty transfers among them. *Uganda* was assisted by three Royal Navy ocean survey ships converted to protected ambulance vessels. These ships carried 593 stabilized casualties to a neutral aeromedical transfer point in Montevideo, Uruguay, 420 miles away, clearing room onboard the hospital ship for new wounded.

#### THE PERSIAN GULF

Helicopter access to the two U.S. hospital ships during the 1991 Gulf war proved problematic. The helicopters' carrying capacity and flying time were limited, and because of missile threats the ships were kept too far from the combat scene to serve as a critical resource. Concurrently, the Royal Navy initiated the innovative construction of an internal airtight citadel, housing a casualty-receiving hospital, in a portion of its grey-hull helicopter-training ship RFA *Argus*, recognizing that this arrangement best suited the needs of the combatant command.

Because of political and military considerations during Operation IRAQI FREEDOM, in 2003 the medical system was constrained by an inability to evacuate Iraqi casualties (both civilians and prisoners of war) to neighboring countries; amphibious task force ships with concurrent military obligations were prohibited from carrying human cargo. Accordingly, the principal activity aboard hospital ship *Comfort* was directed toward the treatment of prisoners of war and displaced Iraqi nationals, while strategic airlift was provided for coalition wounded to Kuwait and Germany.

#### PROTECTED NEUTRALITY REQUIRES RECIPROCAL ACCEPTABILITY!

The Falklands campaign demonstrated the benefits of reciprocal recognition of internationally recognized principles of the protected neutrality of hospital ships. Grunawalt's suggestions for improving the safety of such vessels, as mentioned

earlier, without invalidating the designation of neutrality, are ultimately contingent upon reciprocal acceptability of those capabilities by the opposing parties. Regardless, the most appropriate remedy for protection in each setting is, and historically has always been, the responsibility of the operational commanders.

#### ENCRYPTED COMMUNICATIONS: ARE THEY NECESSARY?

During the Falklands conflict, six hospital ships of both warring parties exchanged radio communications on 2182-KHz in the clear. As described by Grunawalt, it was not possible for the hospital ships to communicate directly with the warships without revealing their position, no doubt an awkward and inefficient arrangement but wholly within the province of treaty-assured neutrality.

To maintain long-distance contact with their bases, the three British ambulance ships and *Uganda* used radio telex via the InMarSat (International Maritime System Satellite) system. Telex messages were also exchanged in the clear, meaning that hospital ships could not be informed in detail about incoming medical evacuations. The British naval command, from which *Uganda* received its orders, likewise could not use coded radio communications to inform the ship directly about the military dangers in the area. Neither could it safely broadcast information about the number of casualties to be evacuated, the wounds sustained, or any unresolved emergencies en route to the ship, obviously preventing the hospital ship from making proper preparations. Under the system used, it was easier for warships to communicate with hospital ships by way of naval bases, with the messages deciphered onshore and then retransmitted in the clear. This caused considerable delay, since combat communications generally had priority. Without an operative satellite link, communications with hospital ships were also interrupted by problems inherent in radio electric-wave propagation within the electronically complex combat environment. Nevertheless, it should be recognized that despite the impediments of an imperfect but neutral policy and communications agreement to operate in the clear, which was accepted and implemented by both belligerents, *Uganda* itself was still able to receive 730 combat patients, perform five hundred surgical procedures, and safely evacuate 593 patients by sea transfer to Montevideo, including a number of others to the Argentine medical carrier *Bahia Paraiso*.

#### ISSUES OF IDENTIFICATION: HISTORICAL AND CONTEMPORARY REALITIES OF IDENTIFICATION FAILURE

Grunawalt and others have written extensively about visual and electronic means of identification for ensuring the protected neutrality of ships. However, does vessel identification always provide a mantle of protection? History has



demonstrated clearly that some are indifferent to the Western etiquette of war. In 1917, for example, in disregard of international law, the Central Powers of World War I declared that hospital ships, no matter how prominently marked in compliance with the Geneva and Hague Convention accords, were no longer protected as neutral vessels. Such ships were denied immunity from attack in the English Channel, parts of the North Sea, and the Mediterranean, even if attackers knew their identities. Between 1917 and 1918 alone, eight hospital ships were torpedoed. Overall, the British lost fifteen hospital ships, most from mines and torpedo attacks. Similarly, during World War II, Germany and later Italy showed complete disregard for the Hague Convention accords. By the middle of 1941, although all Allied hospital ships were clearly marked, no fewer than thirteen had been sunk.

It has been reported that five thousand U.S. prisoners of war perished aboard Japanese “hell ships,” at the hands of the United States. However, would specific preannounced identification of the track of the Japanese prison transport *Asian Maru*, which held 1,800 U.S. prisoners of war, have convinced the commander of the submarine USS *Snook* not to launch the torpedo that destroyed it, killing all but five? Would the prison ship *Shinyo Maru* (lost with all but eighty-two of the 750 U.S. prisoners of war aboard) have likewise been saved from the USS *Paddle*? We will never know; in any case, such track information might have been ignored, given the prevailing perception that the Japanese abused such agreed identification methods.

During UN operations in Korea in the early 1950s, attacks upon medical personnel, vehicles, and tents became the rule, not the exception. The aid station was the first target of North Korean artillery—Korean riflemen used the red cross on regimental ambulances as a convenient bull’s-eye.

A historical review of nonsupport for medical aid in Korea reveals a famous photograph of a soldier smearing mud over the red cross on the side of his ambulance.<sup>1</sup> Likewise, one marked hospital train was hit while leaving Taegu at night for Pusan and then hit again as it emerged from a tunnel. As a result, hospital trains were required to run only during daylight hours; emergency night runs were guarded by military policemen, who rode on sandbagged flatcars.

The modern naval warfare environment has grown ever more dangerous and unpredictable; unbridled offensive weaponry now threatens any noncombatant ship that strays within target range. Although mine warfare has become increasingly sophisticated, it is doubtful that any sensor other than the human eye will be capable of discriminating between Geneva-protected and nonprotected vehicles. This can be illustrated by the fate of the non-Geneva-protected transport *Atlantic Conveyor*, which suffered an attack by a nondirected missile during the Falklands conflict.

On 25 May 1982, two Super Etendards of the Argentine air force appeared at a point seventy miles east of the Falkland Islands. The British were still more than thirty miles to the north when the frigate HMS *Ambuscade* detected an air attack and immediately alerted the fleet. While the fate of one Exocet missile was never determined, several of the crew on *Ambuscade*'s bridge saw the smoke trail of a second Exocet boring in, the red glow of its exhaust clearly visible. The ship opened fire with its 4.5-inch gun, anti-aircraft guns, and machine guns. Above all, every British warship in the battle group fired chaff radar decoys. A Lynx helicopter is also believed to have been operating an active decoy. Unfortunately, the thirteen-thousand-ton container ship *Atlantic Conveyor*, perhaps two miles to starboard of *Ambuscade*, possessed no chaff. The missile veered sharply in midair away from the warships (including the carrier HMS *Invincible*) and struck *Conveyor* below the superstructure on the port side. A huge fire quickly took hold, eventually sinking the ship.

The harsh and unpredictable nature of missile-based warfare is further exemplified by the mistaken attack on an Iranian passenger jet by the Aegis cruiser USS *Vincennes* (CG 49). That tragedy brought into question the safety, effectiveness, and survivability of any unarmed craft—aircraft or ship—dedicated exclusively to the care of the combat wounded. The mishap occurred despite sophisticated electronic warfare systems. In reality, merely detecting a radar or transponder signal requires less technological sophistication than does interpreting it. Thus an adversary who is less technologically advanced but determined to win a conflict can use a raw signal from a craft to guide a missile without ever appreciating or acknowledging the target's noncombatant role.

Would possession of chaff and Phalanx missiles prevent similar catastrophes? Perhaps so, as long as they did not compromise an adversary's definition of neutrality. Clearly, such capabilities did not deter the disaster that befell USS *Stark* (FFG 31) when attacked in 1987 by Iraqi air-launched missiles.

## TERRORISM AND PORT SECURITY

Attacks against maritime targets have historically been infrequent forms of international terrorism. Although the hijacking of *Achille Lauro* in 1985 and the bombings of USS *Cole* (DDG 67) in 2000 and *MT Limburg* in 2001 are notable exceptions, few terrorist incidents have taken place at sea. The general vulnerability of the ocean environment, however, has become more apparent, attributed in part to lax security at many world ports, as well as ineffective coastal surveillance by littoral states that are now confronting serious campaigns of political violence and latent extremist transnational challenges. This is especially true in Indonesia, the Philippines, Colombia, Bangladesh, India, Pakistan, and the countries around the Horn of Africa.<sup>2</sup>

Likewise, al-Qa'ida has maintained an interest in maritime terrorism. Although the 1999 attack on USS *The Sullivans* (DDG 68) failed, the 2000 attack on the USS *Cole*, one of the most advanced U.S. naval ships, possessing both Phalanx missiles and defensive machine guns, succeeded, leaving seventeen sailors dead. The ship almost sank.

It was discovered that the architect of the attacks on both the *Cole* and *MT Limburg* also dispatched maritime terror squads to Morocco to target U.S. Navy ships passing through the Straits of Gibraltar. Similar plots in Southeast Asia were evidenced by charts in the possession of suspected terrorists marked with the location of Sembawang Wharf and Changi Port, Singapore, as well as the crowded port of Surabaya in eastern Java, Indonesia.<sup>3</sup> The 120 annual port visits by U.S. Navy vessels to the region are expected to increase, following the construction of an aircraft carrier docking facility at Singapore's Changi Naval Base.

Future national budgetary priorities will significantly reduce expenditures for military hardware and defense personnel, prompting combatant commanders to alter war-fighting strategies. The Navy's sea basing concept, as originally conceived, will be drastically revised, and plans for afloat casualty care and strategic evacuation may be dramatically altered. Hospital ships, as we have come to know them, may no longer play a role in a military structured for rapid flexible response in asymmetric warfare. (Such is the glaring deficiency in the current debate over the futuristic sea base, in which the two current mammoth hospital ships—relics of a strategy for evacuating the sick and wounded from Europe during the Cold War—may never efficiently satisfy future casualty care requirements.)

How, then, will casualties be supported? Will commercially chartered cruise ships such as SS *Uganda*, already containing hotel, laundry, and other facilities required by a hospital, be available? Perhaps there will only be logistics-support ships, such as vessels of the Military Sealift Command; those vessels previously utilized for delivery of prepositioned military equipment; the surge and sustainment cargo vessels, otherwise known as medium-speed-roll-on/roll-off (LMSRs), of our strategic sealift forces; or ships of the Ready Reserve Force, including break-bulk and barge-carrying ships, or lighter-aboard-ship vessels? None of these would be eligible for protected neutrality, however, if first utilized for transport of war-fighting materiel.

It may be that no specific form of a current hospital ship or converted logistics ship will be sufficiently secure for use by combatant commanders. Perhaps as a result of uncertainties regarding the safety of traditional ships' berthing venues in the new environment of worldwide terror, will aeromedical evacuation surpass any practical approach to primary medical evacuation by surface ships? There is no guarantee, even if a new form of surface medical evacuation vehicle is

developed and outfitted with sophisticated cryptographic communications and modern defensive armaments and electronic countermeasures, that a white-painted hull with large red stripes will provide effective defense.

Ultimately, casualty care and evacuation requirements will continue to emanate from the province of combatant commanders, who will define scenario-specific needs in the twenty-first century. As such, Grunawalt's plea for greater protections within the context of protected neutrality will be rendered moot.

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#### NOTES

1. Albert E. Cowdrey, *The Medics' War: The U.S. Army in the Korean War* (Washington, D.C.: U.S. Army Center of Military History, 1987), p. 76.
2. Andrew Holt, "Plugging the Holes in Maritime Security," *Terrorism Monitor* 2, no. 9 (6 May 2004), p. 6.
3. Zachary Abuza, "Terrorism in Southeast Asia: Keeping al-Qaeda at Bay," *Terrorism Monitor* 2, no. 9 (6 May 2004), p. 4.