## Development of Medical Doctrine for Amphibious Warfare by the U.S. Navy and Marine Corps, 1930–35

## PART II

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he development of medical doctrine evolved during a time of great change for the U.S. Navy and Marine Corps. This second article covers the discussion from 1930 to 1935 and continues the story regarding the analysis of medical doctrine within the larger scope of the evolution of amphibious warfare doctrine. Beginning in the early twentieth century (1920s), individuals within the Navy and Marine Corps coalesced around the issues of medical doctrine development and how best to organize it for the Marine Corps. Though there was debate and the writing of papers regarding medicine, it was not until 1927 that the Navy published Medical Tactics in Naval War*fare* that jump-started the process of how to provide medical support for amphibious operations.

## 1930-35

The first half of the 1930s represented a time of challenge and opportunity for the Marine Corps. The biggest obstacle for the Marines, along with every other institution in America, was how to survive the Great Depression. Under the Herbert C. Hoover administration, which had a fiscal policy of attempting to maintain a balanced budget in the face of decreasing tax revenues, Congress significantly reduced funding for and the authorized strength of the Corps. Additionally the number of Marines that could actually be funded was less than even the reduced numbers theoretically authorized. Although the U.S. Army was not interested in the issue of amphibious assault, the mission of overseas expeditionary action was a valuable bone to be fought over, especially in this fiscally constrained environment.<sup>1</sup> The absorption of the Marine Corps into the Army in the name of fiscal austerity was a real possibility.

At the same time there were challenges for the Marines, doors of opportunity opened. The bulk of the Marine constabulary missions in the Caribbean, Central America, and China were terminated or downsized during this time. This freed up funds, but more important, it freed up personnel to be assigned to the dedicated amphibious forces that would be created. Reduced constabulary obligations also allowed the Marines to assign personnel to boards to work full time on all of the issues, beginning with doctrine, which needed to be developed to make the amphibious force a functioning reality. The election of Franklin D. Roosevelt as president in 1932 was also an opportunity for the Marines. Roosevelt's Good Neighbor Policy with respect to Latin America accelerated the removal of Marines from the Caribbean and Central America. The fiscal policies of the Roosevelt administration and the New Deal resulted in more military spending as part of the overall economic recovery plan. Additionally, Roosevelt had been assistant secretary of the Navy and was a staunch supporter of the Navy and Marine Corps, an affinity that Marines used to their advantage.<sup>2</sup>

The international environment began to change as well, and in the early 1930s as the world began to take on a less benign appearance, the military in general and the Marines in particular would be perceived by the public and Congress as more important and less

<sup>&</sup>lt;sup>1</sup> Allan R. Millett, Semper Fidelis: The History of the United States Marine Corps (New York: Free Press, 1980), 329-30.

<sup>&</sup>lt;sup>2</sup> President Roosevelt's son, James, had a great desire to be a Marine officer, and the Marines gave him a direct commission in the Marine Corps Reserve as a lieutenant colonel in 1936–an unprecedented move. James Roosevelt served on active duty in World War II, initially with Edson's Raiders (1st Marine Raider Battalion) with distinction.

superfluous than in the past. Open Japanese aggression in China, beginning with the invasion of Manchuria in 1931, and the increasingly hostile posture of Japan vis-à-vis the other powers with concessions and interests in China eventually resulted in "accidents," such as the attack on the USS Panay (PR 5). These incidents ratcheted up tensions in the Pacific. Japanese departure from the League of Nations only supported those who felt that, sooner or later, the United States and Japan were going to come to violence to settle issues of Pacific and Asian spheres of influence. While Italy's invasion of Ethiopia, which included the use of poison gas, was disturbing-and even though thoughtful individuals had concerns about the ascension of Adolf Hitler and the Nazis to power in Germany-the Navy and Marine Corps were much more focused on the Pacific.

During the first half of the 1930s, the Marines' commitment to becoming the amphibious warfare specialists intensified. During the late 1920s, the Joint Board had formally given the mission to the Marines. Colonel Ellis B. Miller had begun in the late 1920s to reorient the Marine Corps' schools toward landing operations.<sup>3</sup> Not only had the intellectual reorientation continued and expanded, but the physical structure of the Marines also changed to provide a permanent and significant amphibious force. The Marines and Navy reinstituted landing exercises, and these became a significant annual event. As funding became available, and in spite of the looser purse under the Roosevelt administration, funding was by no means generous at this time, the Marines strove to obtain the tools needed to equip the amphibious force to carry out the newly developed doctrines.

In 1931, the commander of the Marine Corps Schools at Quantico and the Commandant of the Marine Corps discussed the need for developing doctrine for landing operations.<sup>4</sup> Subsequent correspondence elucidated the requirement that the board have Navy as well as Marine representatives as it proceeded to develop this doctrine.<sup>5</sup> In October 1931, the Commandant replied, authorizing the formation of a Marine Corps board to develop a landing manual and permitting the assignment of Marine officers full time to this board and approving at least one Navy member to the board. The Marines hoped that the assignment of a Navy member to the board would provide insight into Navy thinking on such subjects as boat manning, gunfire support, and aviation. The correspondence, creating and modifying the board, made no mention of any input or discussion of medical issues associated with this new doctrine.<sup>6</sup> The Marines initially established the board in June 1931, and it consisted of Majors Charles D. Barrett, Lyle H. Miller, and Pedro A. del Valle, all who would later serve in WWII. In the fall, Lieutenant Walter C. Ansell, USN, was added to the board.7 Lieutenant Ansell's area of expertise was naval gunfire.

This group of officers, and by extension all of the subgroups that worked on this manual whether officially assigned or (as in the case of the medical officers) on their own, did not receive much in the way of direction from above. Major Pedro del Valle later explained that the members of the board had received little guidance, doctrine, or information on what to do and used studies of the British operation at Gallipoli, Turkey, and those studies were examples of what not to do.8 At one time or another, many officers were involved in shaping this document, and in January 1934, there was an extensive conference with approximately 60 officers attending to discuss progress on the manual and to make sure the document was understandable by both the Navy and the Marine Corps. Approximately six naval officers were present; however, there were no medical officers present and no discussion in the minutes of any issues relating to medical aspects of amphibious landings.9 Given the very specific purposes for which this

<sup>&</sup>lt;sup>3</sup> Leo J. Daugherty III, Pioneers of Amphibious Warfare, 1898-1945: Profiles of Fourteen American Military Strategists (Jefferson, NC: McFarland & Co., 2009), 225.

<sup>&</sup>lt;sup>4</sup> Charles F. B. Price to Board of Officers for the Development of the Text on Landing Operations, 17 April 1931, Historical Amphibious File, Gen Alfred M. Gray Research Center (GRC), Marine Corps University (MCU), Quantico, VA.

<sup>&</sup>lt;sup>5</sup> BGen R. C. Berkeley, memorandum, 3 June 1931, Historical Amphibious File, GRC, MCU, Quantico, VA.

<sup>&</sup>lt;sup>6</sup> "Text for Landing Operations," 20 October 1931, Historical Amphibious File, GRC, MCU, Quantico, VA.

<sup>&</sup>lt;sup>7</sup> Tom Fitzpatrick, A Character that Inspired: Major General Charles D. Barrett, USMC, Amphibious Pioneer (self-published, 2003), 320.

<sup>&</sup>lt;sup>8</sup> Daugherty, Pioneers of Amphibious Warfare, 279.

<sup>&</sup>lt;sup>9</sup> "Proceedings for Conference held at the Marine Corps Schools, Quantico, VA., on Tuesday, January 7, 1934, for the purpose of discussing, approving or commenting on the various headings and sub-headings of the tentative Landing Operations Manual, prepared by the Marine Corps Schools, and what it should include," 7 January 1934, Historical Amphibious File, GRC, MCU, Quantico, VA.

conference was held, the lack of discussion of any aspect of medical services for an amphibious landing is difficult to understand, although not surprising.

In response to a query in the 1970s from a Marine Corps archivist, Rear Admiral Ansel, who as a lieutenant had been the sole Navy representative on the original board stated that

I can recall no talk about casualties and their handling at Quantico; no one was responsible for this subject—which now seems incomprehensible. We were all on the offensive. The talk we [he and General del Valle] recalled included that returning boats (from the assault) were to be available for casualty return, and at the mother ship the boats with the casualties were to be hoisted with the wounded in them.<sup>10</sup>

The officers who made up the original board, and those who worked with them and/or attended the conference in 1934, all had the benefit of numerous detailed and critical analyses of the Gallipoli operation to study. These analyses showed that the medical component of the operation was a complete disaster, especially during the assault phase and for some time thereafter. In an impressive (or perhaps depressive) example of groupthink, all of the Navy and Marine line officers were willing to accept that the spectrum of medical care, including supply, evacuation, and treatment, would "just happen" without some sort of integrated doctrinal and planning process.

The Marines published the initial tentative manual in 1934 for internal use at the Marine Corps Schools. A year later, the Marines republished the manual for Corps-wide use. Chapter IX of the *Manual for Landing Operations* dealt with logistic and support issues and contained a few brief paragraphs concerning medical issues. Paragraph 53 described needs for medical planning, which included normal Fleet Marine Force (FMF) medical units and fleet units and additional hospital ships; conversion of transports for movement of the wounded, personnel, and equipment for ambulance boats and shore (beach) parties;

and provisions for evacuation of severely injured and convalescence for those capable of return to duty.<sup>11</sup> Planners based casualty estimates on the Gallipoli experience calculated by planners to be 15 percent of the force landed on the first day, 10 percent of the total force landed over the first three days, and four wounded in action for every one individual killed in action. No estimates were made to account for disease and nonbattle injuries among personnel of the landing force.<sup>12</sup> The need for an ambulance service, collecting stations for the wounded, and eventual onshore hospital facilities were mentioned but not fully defined. Compared to the detail in most of the other aspects of an amphibious landing covered in this manual, coverage of the medical issues is both scant and incomplete. The medical paragraphs appear to have been cobbled together from other publications or informal conversations rather than as the result of detailed study and discussion by experts.

At the same time, the Marines at Quantico were beginning to put together a theoretical basis for an amphibious landing force; the Marines were also formally redefining themselves. On 17 August 1933, the Commandant of the Marine Corps (CMC) wrote to the chief of naval operations (CNO) requesting that the name of the Marine expeditionary force be changed to the Fleet Marine Force.<sup>13</sup> The CNO concurred, and on 8 December 1933, Navy General Order 241 created the FMF.<sup>14</sup> By emphasizing its connection to the fleet, and with the further emphasis on seizing bases for the fleet, the Marine Corps had helped to ensure Navy support in any future battles against being incorporated into the Army.

While all of these changes, both doctrinal and organizational, were occurring in the Corps, parallel changes were occurring in Navy medical support to the Marines. These medical changes were truly parallel. There is no evidence that there was ever any attempt by higher authorities in the Marines or the Navy to create a formal board to evaluate the medical needs of amphibious operations. An official plan of coordination was not created to ensure that medi-

<sup>&</sup>lt;sup>10</sup> RAdm Walter Ansel, USN (Ret), "Letter to John B. McClurkin, librarian Marine Corps Archives, Quantico: casualty handling during development of landing force manual tentative," 21 March 1971, Historical Amphibious File, GRC, MCU, Quantico, VA.

<sup>&</sup>lt;sup>11</sup> "Tentative Manual for Landing Operations (1935)," 1934, Historical Amphibious File, GRC, MCU, Quantico, VA, 295.

<sup>&</sup>lt;sup>12</sup> Ibid., 296.

<sup>&</sup>lt;sup>13</sup> Acting MGen J. T. Russell to Chief of Naval Operations, 17 August 1933, Joel T. Boone Papers, Library of Congress, Washington, DC.

<sup>&</sup>lt;sup>14</sup> Jeter A. Isley and Philip A. Crowl, U.S. Marines and Amphibious War: Its Theory and Its Practice in the Pacific (Princeton: Princeton University Press, 1951), 34.

cal input was available to the Marines landing manual group when needed or that the medical thinkers were kept abreast of the evolution of Marine doctrine. It is clear that medical officers involved with the Corps kept themselves informed about what was going on, recognized some of the problems that needed to be solved, and worked to devise solutions.

In August 1931, as the Marines were developing the tentative landing manual, Navy Captain R. Hayden, of the Medical Corps and post surgeon at Quantico, wrote two letters to the commanding general of the Quantico base.<sup>15</sup> In these letters, Captain Hayden evaluated the plan of medical support for the expeditionary brigade. In essence, he found that the plan of support was inadequate in concept, personnel, and equipment. He made several recommendations, among them increasing the number of personnel, modularizing the attached base hospital set so that it could be split into two independent units, and upgrading the equipment.<sup>16</sup> This was to be the first of a series of recommendations made by a succession of medical officers for changing the medical support structure to better serve the needs of an evolving Marine Corps. Captain Hayden made an important point that his proposals would need to be modified in case the brigade was engaged in major combat. This was distinctly different than the requirements for the low-level combat that had been typical for the Marines since the end of WWI.

The medical personnel supporting the Marines, and much of the medically related supplies and equipment to support the Marines, came from the Navy, therefore there was a system of dual control of medical personnel and assets. Once the Navy agreed to supply personnel or materiel to the Marines, the Corps could distribute them as it saw fit; however, the Navy, through the Bureau of Medicine and Surgery (BUMED), made the decisions about filling the requests for personnel and materiel. This system, which persists to the present day, has always had a certain degree of friction in it, and this friction increases especially during peacetime and resources are constrained. This explains the prompt September 1931 response to the recommendations of Captain Hayden from BUMED. Navy Captain Irving W. Chambers, who was both knowledgeable about and sympathetic to Marine Corps medical needs, sent back the following reply from BUMED to Captain Hayden: "The financial end of the Bureau cannot stand the purchase of such a large amount of equipment, chests, etc., for peace time as proposed in the tables you submitted."<sup>17</sup> This issue of peacetime funding of medical supplies and equipment for potential wartime use reoccurred often.

The fiscal constraints placed on BUMED did not mean that the Navy Medical Department was unaware that the organization of support for Marine expeditionary forces was inadequate, which had been an issue since the 1920s. It should be emphasized that Captain Chambers did not think the changes requested by Captain Hayden were excessive or inappropriate—BUMED just did not have the financial resources to buy expensive medical equipment. The surgeon general of the Navy was directly involved and, on 28 September 1931, Rear Admiral Charles E. Riggs, surgeon general of the Navy, wrote to the Major General Commandant ". . . it will be readily seen that the medical facilities provided in the Marine Corps peace strength organization tables for reinforced Infantry Brigade appears to be entirely inadequate."18 The frustration behind the correspondence in the fall of 1931 between BUMED and the Marines is evident; there was a problem and it was not trivial. Both the medical staff attached to the Marines and the staff at BUMED, including the surgeon general, agreed that staffing and equipment for Marine medical support were inadequate. There was agreement that the proposed changes were reasonable and appropriate. Unfortunately, resource constraints imposed by Congress did not allow the deficiencies to be corrected.

Over and over again, a singular fact about medical

<sup>&</sup>lt;sup>15</sup> Currently, and for more than 30 years, there has been the position of medical officer of the Marine Corps. This doctor is on the staff of the Commandant, and one of his duties is to pass to the Commandant changes in medical force structure with his recommendations. In the 1930s, no such position existed, and at least in 1931, the post surgeon at Quantico was functionally the most senior doctor serving with the Marines and had a responsibility for forwarding such doctrinal and structural items.

<sup>&</sup>lt;sup>16</sup> Capt R. Hayden, (MC) USN, to Medical Department, 20 August 1931, Record Group (RG) 52, National Archives, Washington, DC; and Capt R. Hayden (MC) USN, "Letter: Tables of personnel and material allowances, medical department, to accompany U.S. Marine Corps expeditionary forces," 21 August 1931, RG 52, National Archives, Washington, DC.

<sup>&</sup>lt;sup>17</sup> Capt William Chambers, (MC) USN, to Capt R. Hayden, 28 September 1931, RG 52, National Archives, Washington, DC.

<sup>&</sup>lt;sup>18</sup> RAdm C. E. Riggs, (MC) USN, to MajGen Commandant, 28 September 1931, RG 52, National Archives, Washington, DC.

support for combat operations was made clear, and while it was the Marines in particular examined in detail, it also applied to combat medical support for the Navy itself. To have adequate materiel on hand to support combat is expensive in peacetime. Drugs and other supplies reach the end of their useful life and equipment may become obsolete before it is ever used. All medical personnel, officer and enlisted, are highly trained and valuable assets and expensive to support. Even if they are working in a normal medical capacity most of the time, the time needed to train for and to learn how to function in the field environment, which is time away from normal medical duties, represents a significant expense. Adequate training and materiel is absolutely essential to provide efficient, or even adequate, medical care from the first day of combat. While medical personnel and equipment and supplies can be expanded as a force expands, providing for day one wartime needs in the face of competing peacetime priorities is a significant problem.<sup>19</sup>

Although Captain Chambers may have been the messenger bearing the bad news, he was well aware of the problems caused by these gaps. In 1932, he submitted a secret report to the director of the War Plans Division in the Office of the Chief of Naval Operations. The Orange War Plan needs of Marine forces were analyzed by Captain Chambers, as well as the necessary hospital ships and transports (class A and B ships).<sup>20</sup> He noted the significant number of vessels required, as well as an overage for up to 15 percent more casualties in case estimates were low, and also the possibility of losing some of the ships.<sup>21</sup> To keep facilities available for the Marines in the land-based forward expeditionary hospital, Captain Chambers recommended that hospital ships be used to care for most Navy casualties.

In early 1933, Captain Chambers prepared a report that was sent to the senior echelons of BUMED concerning the medical organizations for the Marine Corps. In addition to suggestions for reorganization of the medical battalion, Chambers' suggestions also included increasing the number of personnel in the battalion and adding a supplementary 50-bed hospital if needed in combat against an "organized" enemy.<sup>22</sup> He described the current plan as inadequate even in peacetime. This report, and his letter concerning hospital ship requirements for a war with Japan, made it clear that his response to Captain Hayden was not his personal view but rather an official response of BUMED.

Captain Chambers was not considering his suggested changes in a vacuum. In April and May of 1933, Captain Hayden responded to Chamber's recommendations. Hayden agreed with most of the recommendations and specifically commented that they were adequate for *peacetime* activities but only if the Marines provided personnel to support the medical unit and perform nonmedical duties. He also suggested that the collecting companies be enlarged, and wanted to be clear that his approval and suggestions were provisional and subject to change upon further analysis and the result of field exercises.<sup>23</sup> As an example of how valuable exercise experience was in the development of doctrine, Captain Hayden urged that the medical elements of the brigade and their equipment be divided among two or more ships, citing the experience of a 1932 exercise off Hawaii, where the ship carrying all of the Army medical personnel and their equipment was ruled to have been torpedoed and sunk.24

The senior medical officer for the Marine forces

<sup>&</sup>lt;sup>19</sup> While doctors (and other medical professionals) can be added to the force when war starts, they need basic military training and then specific field training to be effective in the Marine Corps (or even afloat/Navy) environment. Enlisted (corpsman) training, both basic and field, is also time consuming. Providing adequately trained medical personnel for an expanding force will trend behind overall expansion.

<sup>&</sup>lt;sup>20</sup> Orange War Plans refers to a series of Joint Army-Navy plans for dealing with a potential war with Japan.

<sup>&</sup>lt;sup>21</sup> Capt William Chambers, (MC) USN, memorandum, 28 May 1932, RG 52, National Archives, Washington, DC.

<sup>&</sup>lt;sup>22</sup> Capt William Chambers, (MC) USN, to BUMED, 28 September 1931, RG 52, National Archives, Washington, DC.

<sup>&</sup>lt;sup>23</sup> Collecting companies were part of the medical battalion and were the intermediate step between the aid stations and the hospital company. Here casualties were further sorted, received additional medical treatment as needed (but not surgery), and then triaged for further treatment at the hospital company, temporary holding, or return to duty. See Cdr W. L. Mann, (MC) USN, *Medical Tactics in Naval Warfare*.

<sup>&</sup>lt;sup>24</sup> Capt R. Hayden (MC) to Commandant, USMC, 13 April 1933, RG 52, National Archives, Washington, DC; and Capt R. Hayden (MC) to Commandant, USMC, 10 May 1933, RG 52, National Archives, Washington, DC. The request for Marines to be not just collocated with a medical unit but to be assigned and under the command and control of the medical unit is an important issue. The number of enlisted personnel assigned to a medical unit is based on the medical tasks the unit is designed to perform. If medical personnel (corpsmen) have to be used for nonmedical tasks, such as ambulance drivers or sentries, this reduces the ability of the unit to perform its designed function. A separate Marine unit attached to a medical unit (e.g., a service company) results in a divided command where the commander of the service unit makes the decision on what tasks his Marines will or will not perform and when, rather than the commander of the medical unit; the effectiveness then depends upon individual cooperation that may not be present.

participating in the 1932 exercise in Hawaii was Navy Lieutenant Commander Walter A. Vogelsang. He had prepared two alternative plans as annexes to the field order, which dealt with both the simulated combat aspects of the exercise and the need to provide actual medical care to anyone who became sick or injured. He created a detailed plan of casualty flow, using maps of the exercise area to locate and identify collection points, beach evacuation stations, and ambulance routes. A field hospital was scheduled to be landed and set up, supplies to be on hand were defined, and a medical chain of command with specific responsibilities was established. In addition to planning for the possibility of real casualties, appropriate preventive measures (e.g., sanitation requirements and immunizations) were defined.25 This medical annex was remarkably similar to one that would be produced today for a similar exercise and demonstrates the expertise of Lieutenant Commander Vogelsang, as there was no file of annexes from past exercises or some standard defined format for such annexes available for reference.

With the creation of the FMF, the Navy created the post of FMF medical officer. As a specialty officer on the staff of the commanding general, the force medical officer had responsibility for the dayto-day health of the force, via the subordinate regimental and battalion physicians, but also for medical planning that included determining the staffing and equipping of the medical units attached to the FMF. The first FMF medical officer was Navy Lieutenant Commander W. J. C. Agnew. Lieutenant Commander Agnew had previously served with the Marines as a regimental surgeon. He wasted no time moving forward and, in December 1933, sent two letters up the chain of command to the commanding general, FMF, with recommendations for organizing the various medical units or detachments that would serve

with the FMF. In particular, he recommended two doctors and 16 corpsmen for an infantry battalion, with half of the corpsmen to be at the battalion aid station (BAS) and the others with the companies. One of the doctors could be "temporary," but the senior of the two was to be permanent. Noninfantry units or "special troops" were to be assigned one doctor and eight corpsmen. These recommendations were worked out in conjunction with the post surgeon, Navy Captain A. H. Allen, and the post sanitary officer, Navy Lieutenant (junior grade) R. E. Fielding.<sup>26</sup>

Lieutenant Commander Agnew continued to work on a functional design of the medical support for the FMF, and the next target was the field hospital. In December 1933, Lieutenant Commander Agnew sent a memo to Major Harry K. Pickett, located at Headquarters Marine Corps (HQMC), about logistic and support issues. The recommendation was to increase personnel and equipment so that the field hospital could be modularized and dispersed as three smaller but freestanding units if necessary.<sup>27</sup> Major Pickett passed these and subsequent suggestions up the chain as well as recommending that Lieutenant Commander Agnew and others review the experience of the 3d Marine Regiment in China to devise the new system. Eventually, Pickett received the following direction on how to proceed from Major Leander A. Clapp: "Have interviewed [Brigadier] General [C. H.] Lyman [commanding general, FMF] on the matter and he doesn't mind as to how you arrange it, but wants to assure the flexibility as outlined in Agnew's report . . . I frankly admit my knowledge is limited on the matter."28

The response of Brigadier General Lyman, with Major Clapp's additional comments, typifies the Marine response to issues of medical support. The Navy provided medical personnel and supplies to

<sup>&</sup>lt;sup>25</sup> LCdr W. A. Vogelsang, (MC) USN, "First Marine Division/Blue Expeditionary Force, Annex No. 3 to Administrative Order No. 1: Plan of Sanitation and Medical Plan-General (Constructive)," 26 December 1931, Historical Amphibious File, GRC, MCU, Quantico, VA; and LCdr W. A. Vogelsang, (MC) USN, "First Marine Division/Blue Expeditionary Force, Annex No. 1 to Administrative Orders No. 2: Plan of Evacuation, Hospitalization and Medical Supply," 16 January 1932, Historical Amphibious File, GRC, MCU, Quantico, VA:

<sup>&</sup>lt;sup>26</sup> LCdr W. J. C. Agnew, (MC) USN, to Maj Harry K. Pickett, USMC, 28 December 1933, RG 127, National Archives, Washington, DC; and LCdr W. J. C. Agnew, (MC) USN, to Commanding General, FMF, 18 December 1933, RG 52, National Archives, Washington, DC. Current staffing of a Marine infantry battalion (deployed) is two medical officers and approximately 60 enlisted corpsmen. Approximately 20-25 corpsmen would be assigned to the BAS, and the others assigned as platoon/company corpsmen. When not deployed, a battalion usually has only one doctor, the second being assigned prior to deployment.

<sup>&</sup>lt;sup>27</sup> LCdr W. J. C. Agnew, (MC) USN, to Maj Harry K. Pickett, 6 February 1934, 5 March 1934, RG 127, National Archives, Washington, DC.

<sup>&</sup>lt;sup>28</sup> Maj H. K. Pickett, USMC, to Maj Leander Clapp, 26 February 1934, RG 127, National Archives, Washington, DC; and Maj Leander A. Clapp, USMC, to Maj H. K. Pickett, 7 March 1934, RG 127, National Archives, Washington, DC.

the Marine Corps. Most Marines, like Major Clapp, felt out of their depth when dealing with matters of medical support. As a result, the Marines were more than happy to leave the details of making medical support happen up to the Navy, as long as the plans made some logical sense and did not impose what the Marines considered unrealistic demands in terms of shipping space or Marine assets, such as personnel or equipment. As long as the Marine commanders had confidence in their assigned medical officers, the doctors had the green light to create solutions to the problems with little interference. Only when plans seemed to make no sense or when support failed did line officers tend to get directly involved. This attitude was both a blessing and a curse. It gave the medical officers independence to devise solutions, yet denied them significant institutional support. The solution to the curse was to network with like-minded medical officers who faced similar problems.

Even today, in a much larger U.S. Navy and Marine Corps, the number of medical officers assigned to the Marines is not significant. Those medical officers with multiple Marine tours comprise an even smaller group. In the naval establishment of the 1930s, most medical officers who had multiple or senior assignments with the Marines knew each other by reputation at least. Given the limited geography of where medical officers assigned to the Marines were stationed, the opportunity for informal get-togethers at the officers' club or elsewhere was important. Medical officers on a base, such as Quantico, even if not working in the same building, had many opportunities for informal networking. Almost all of those officers involved in this network had multiple tours with the Marines as well as operational experience. This combination gave them both an appreciation for the medical problems (combat and noncombat) of deployed Marines, as well as insight into the tactical realities that planners had to take into account.

An example of this sort of networking is the response to a letter sent by Major Pickett to then Commander Vogelsang. Vogelsang, who was then assigned to duty at Naval Hospital San Diego and the USS *Maryland* (BB 46), was asked his opinion about the proposals put forward by Lieutenant Commander Agnew for the hospital support of the FMF field hospital units. Commander Vogelsang emphasized the need to keep the larger unit on the table of organization (T/O) as it would be needed in a wartime situation, although not necessarily for peacetime operations, which included operations like Nicaragua and China. In his letter, Vogelsang cited the example of the medical disaster at Gallipoli—which was partly due to having inadequate facilities for medical care—and the lack of adequate facilities would have resulted in a failure to provide adequate care even had there been proper planning in other respects and excellent Army-Navy cooperation.<sup>29</sup>

In June 1934, Navy Captain William L. Mann Jr. was once again at Quantico, now as the post surgeon. From this date until the entry of the United States into WWII, he was intimately involved with the Marines and the continuing evolution of medical doctrine for amphibious warfare. It did not take Mann long to roll up his sleeves and get to work. In August 1934, he sent a lengthy memo to Brigadier General Lyman. Captain Mann drove home the point that medical care for an amphibious assault was quite different from that for a land campaign, as a result, required specialized doctrine, personnel, and equipment. Simply copying the Army's methods would not do.

One of the essential differences in care between the Army and Marines involved the treatment of wounded in the assault phase. Shore-to-ship movement could be problematic, and therefore, it was essential that some medical capability go ashore early. Captain Mann clarified both the problem and its potential solution: "The history of amphibious warfare ... shows conclusively that the medical assistance of forces afloat available to the shore units is frequently UNRELIABLE and UNDEPENDABLE."30 To establish medical care ashore, Mann urged that all equipment packs for the BAS be no more than 40-50 pounds so that they would be man-portable. Like most of his fellow Marine-oriented medical officers, Mann invoked military history, most specifically Gallipoli but also the experience of the Spanish-American War, to buttress his arguments.

Captain Mann followed up on this issue of equipment. In December 1934, he wrote to HQMC con-

<sup>&</sup>lt;sup>29</sup> Cdr Walter A. Vogelsang, (MC) USN, to Maj H. K. Pickett, 22 May 1934, RG 127, National Archives, Washington, DC.

<sup>&</sup>lt;sup>30</sup> Capt W. L. Mann, (MC) USN, to BGen C. H. Lyman, 15 August 1934, RG 52, National Archives, Washington, DC.

cerning the proposed equipment sets for the FMF that had been recommended by Lieutenant Commander Agnew. The paperwork for these changes had been on Captain Mann's desk when he arrived to take over as post surgeon. He noted that many items issued to FMF units at present were based on the 1927 equipment tables.<sup>31</sup>

In January 1935, the Navy and Marine Corps began to test the new doctrine they were creating. The first fleet landing exercise (FLEX 1) was held from 15 January to 15 March 1935, around Culebra, Puerto Rico.<sup>32</sup> Initially held once a year during the winter, FLEXs were held in the Caribbean and on the West Coast to create an opportunity to train sailors and Marines, to identify problems, and hopefully to test proposed solutions the following year.<sup>33</sup> The vital role the FLEXs were to play in the refinement of doctrine, tactics, and equipment for all aspects of amphibious warfare, including medical, cannot be exaggerated. As one of the senior Marine commanders of WWII, General Holland M. Smith would later state in his postwar history of the development of amphibious warfare that "provisions for realistic, full scale joint training, which with experience is the only method for achieving that full measure of coordination necessary to success."34 Due to constraints in ship availability, limiting the size of the assault forces and constraining personnel availability, equipment, and budgets, many aspects of FLEX 1 had to be simulated using constructive forces.<sup>35</sup>

The widespread use of constructive forces goes against General Smith's dictum for realistic full-scale training and violates the military aphorism of "train like you fight." In spite of the many limitations built into FLEX 1 before the exercise began, it did provide valuable experience and showed a commitment to make the amphibious-oriented Marine Corps a reality. By 1935, the Marines and the medical officers who were working to solve their piece of the puzzle had the opportunity to thoroughly analyze both Gallipoli and the German assault on the Baltic Islands and hopefully could test, evaluate, and refine the cycle, avoiding most of the mistakes in those campaigns.

In March 1935, the medical officers involved in FLEX 1 submitted a confidential, classified report on the medical aspects of the exercise. The involved physicians included the battalion surgeons of the 1st and 2d Battalions of the 5th Marines, the regimental surgeon of the 5th Marines, and the force surgeon. The report contained a summary of actual medical care delivered during the exercise; both preventive measures and treatment of sick or injured were considered adequate. However, the rest of the report was much less positive. One major problem was the personnel issue. There were inadequate numbers of personnel overall, and many individuals were transferred to the units shortly before the exercise, which prevented adequate training and integration, and then many were transferred out immediately following the exercise, which wasted the training effort. During the exercise, there was a lack of realistic casualty drills, limiting the training of the corpsmen and the ability to test the systems established for casualty care and transportation. Finally, there were significant problems with the equipment. The packs were too bulky to be manhandled (as noted earlier by Captain Mann), and the kits carried by the corpsmen were awkward and did not contain the right mix of supplies and equipment.<sup>36</sup> These complaints were uniform across all levels of the medical department participating in the exercise.

Given that FLEX 1 was the first major landing exercise in 10 years, and the landing manual was still a work in progress, the Marines were not going to release it Corps wide until later in 1935. Some of the issues raised in the special reports should have been, at least in theory, relatively easy to fix. Given the

<sup>&</sup>lt;sup>31</sup> Capt W. L. Mann, (MC) USN, to Headquarters Marine Corps, 8 December 1934, RG 127, National Archives, Washington, DC.

<sup>&</sup>lt;sup>32</sup> Millett, Semper Fidelis, 337.

<sup>&</sup>lt;sup>33</sup> Isley and Crowl, U.S. Marines and Amphibious War, 46.

<sup>&</sup>lt;sup>34</sup> Gen Holland M. Smith, USMC (Ret), *The Development of Amphibious Tactics in the U.S. Navy* (Washington, DC: Headquarters Marine Corps, History and Museums Division, 1992), 6.

<sup>&</sup>lt;sup>35</sup> Constructive forces is the term used at the time to describe the use of a portion of a unit to represent the entire unit. This allowed an exercise to work with smaller numbers of personnel and still preserve some elements of realism, as opposed to simulated units where no personnel are used. Constructive forces represent a compromise and do not provide the experience for participants or the data for analysis that using a complete unit does.

<sup>&</sup>lt;sup>36</sup> "Special Reports submitted by Fleet Marine Force on U.S. Fleet Landing Exercise No. 1 Culebra, P. R., February 1935 {Confidential}," March 1935, RG 127, National Archives, Washington, DC.

overall Navy shortage of enlisted medical personnel, filling the T/O of the units may not have been possible, but the manning could have been improved by assigning more personnel on a temporary basis or with some shuffling of priorities. Also, if it was necessary to use personnel assigned on temporary duty, having them arrive in time for adequate pre-exercise training and integration should have been arranged. Medical personnel without proper field training not only limit the ability of the exercise to test doctrine and methods but can also become a hindrance. Given the importance of realistic medical drills in casualty movement and treatment, incorporating medical planners in the creation of the schedule for the next FLEX could be done easily.

Regarding equipment, the problems were at least partially identified. Redoing the packing of equipment sets into man-portable units required planning and effort but other than containers required no new purchases. Captain Mann and others had commented that the medical equipment needed to be organized so that the packs could be carried by one or two men.<sup>37</sup> Overly heavy or bulky ones were difficult if not impossible to transport in an assault. Creating new kits to be carried by the corpsmen would also be a relatively easy fix.

However, to solve the equipment issue now that it had been identified, somebody had to take ownership of the problem. Given the dual nature necessary to control the medical personnel and material assets in support of the Marines discussed previously, equipment issues became orphans. The Marine Corps Equipment Board, created in 1935 by Marine Corps Order 87, had the special task of evaluating new and current equipment with regard to its suitability for use in amphibious landings. Similar to the board established to create the tentative landing manual, no Navy medical staff was represented here either, at least initially.<sup>38</sup>

A good start had been made by the Marines and their Navy doctors in developing the theory for am-

phibious warfare, and they were beginning to test it. General Smith summed up the state of the art in 1935, "Between 1920 and 1935 a landing operations doctrine was developed and an organization established with which to test it."<sup>39</sup> The foundation for a network of Navy medical officers committed to developing medical doctrine and tactics for amphibious warfare had been established. The names of Mann, Vogelsang, and Chambers led the field in 1935, with the mantle of *primus inter pares* (first among equals) falling on the shoulders of Captain W. L. Mann. Some of the doctors active through the early 1930s moved on to other duties, and new men replaced them, but it always remained a fairly small group known to each other professionally if not personally.

The FMF moved from Quantico to San Diego, California. This represented the prevailing view, especially in the Navy and Marine Corps, that the Pacific was expected to be the center of any future conflict. The focus was clearly on the Orange War Plans and the Empire of Japan.

In 1930, the international scene was dominated by the Great Depression, and war was not seen to be something to be overly concerned about. By the middle of the decade, Fascist Italy was using naked military force, including gas warfare, to expand its empire, and Nazi Germany had made clear its intentions to rearm. The Versailles Treaty (1919) and the system of international relations based upon it lay in the dust. If there were issues, Hitler and Italy's Benito Mussolini were Europe's problems, and the United States was firmly against becoming involved yet again in the difficulties of Europe. However, in the Pacific and in Asia, Japan was on the march. Japan had not only absorbed Manchuria (now Manchukuo) but was directly penetrating into China. Unlike Germany and Italy, Japan could not be written off as someone else's problem. As you will continue to read in the third and final part of this series, there was yet much work to do, and the time in which to perform the work was shorter than anyone realized.

<sup>&</sup>lt;sup>37</sup> All boats used for landings at this time required the men to climb over the sides to debark on the beach. Anything that could not be handled by one or two men would not be usable during an assault phase but would have to wait until larger craft or barges could approach the beach.
<sup>38</sup> Fitzpatrick, A Character that Inspired, 334.

<sup>&</sup>lt;sup>50</sup> Fitzpatrick, A Character that inspired, 334.

<sup>&</sup>lt;sup>39</sup> Smith, The Development of Amphibious Tactics, 18.