12-inch gun on disappearing carriage, Fort Williams. *Bolling Smith Collection.*

10-inch gun on disappearing carriage, HD Portland. *Bolling Smith Collection.*
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November Cover Photos

Front Cover: 12-inch M1895 gun on M1917 barbette carriage at Battery Foote, Fort Levett, ME, 1928.
   Bolling Smith Collection.

All of this issue’s cover photos are from the 1928 ROTC camp at Fort Williams, HD Portland, ME.
The photo album belonged to Cadet Stanley Francis Szlosek, of the University of New Hampshire.
In 1930, Szlosek was commissioned in the Organized Reserves as a second lieutenant, C.A.C.
CDSG Publication Policies

The CDSG publishes two periodicals, the Coast Defense Journal and the CDSG Newsletter. Items of lasting value will be printed in the Coast Defense Journal; the Newsletter will print organizational news and business, and items of a more temporary nature. The editor has final authority and responsibility for all items published in the Journal. All Journal submissions with accompanying figures and photographs should be sent to the editor.

Articles must relate to some aspect of military coastal or harbor defenses. The scope of interest of the organization is primarily but not exclusively American defenses. The Coast Defense Journal and Newsletter rely on the submission of articles, reviews, site-visit reports, notes, comments, letters, inquiries, etc., from the membership of the CDSG. Authors are encouraged to contact the editor in advance if there is any question of the appropriateness or relevance of the subject matter. Cover photographs will be determined by the editor.

Authors are expected to include a detailed citation of sources. Where possible, specific data should be identified by source, and the text should be footnoted where appropriate. In exceptional circumstances, original source documents will be considered for replication if they possess unusually great reference value, are otherwise unavailable, and are relatively brief. Each author is responsible for the accuracy of his work and shall credit/acknowledge sources of information. Permission and source citations shall be submitted and published with copyrighted articles.

The editor would prefer articles be submitted as PC-compatible Word, Rich Text, or ASCII text files on disk or by email, but other formats may be converted. Some typed articles can be converted to text files. Tabular data should be submitted as separate tabbed-text files. Line drawings, figures, photographic prints, and slides should accompany the article but each figure must be submitted as a separate page with the caption attached. Electronic illustrations should be at least 300 dpi resolution. All footnotes and references should be included at the end of the article. Footnote numbers in the manuscript should follow at the end of a sentence in the article itself within parentheses, not as a superscript.

All submissions will be reviewed by the editor for readability, accuracy, suitability, and legality. Authors may be requested to make corrections before the actual publication in the Journal. Articles will not be printed with changes without the approval of the author, but the editor may reject articles if the author declines to make the required corrections.
Kawailoa Battle Position
8-inch Railway Guns

John D. Bennett

The Kawailoa (ka-wa‘ee-lo‘a; long water) Battle Position was a railroad firing spur for a battery of four 8-inch M1888 railway guns of the 41st Coast Artillery (Ry) Regiment at Ft. Kamehameha. Maj. Ira B. Hill, commanding the 41st CA, conducted a pre-construction study in September 1935 of proposed 8-inch gun railway firing sites on Oahu with respect to materials needed to construct firing spurs. It was determined that the Kawailoa position would require:

1. One mile of rail, 60 lb. to be substituted instead of 80 lb. (125.71 tons)
2. 325 pairs of splice bars
3. 1956 bolts w/nuts
4. 6 switches
5. 11,520 spikes
6. 2,880 ties
7. 6 sets of switch ties
8. 1 mile of ballast

Maj. Gen. Charles D. Herron, CG, Hawaiian Department, directed the 3rd Engineers at Schofield Barracks to begin construction at the site in a memo dated October 13, 1939. Construction commenced on October 1, 1939, using troop labor, and was completed on December 29, 1939, at a cost of $10,967. The location was first designated an alternate battle position for similar guns at Puuiki (poo-oo-ee-kee; small knoll), some 4.8 miles WSW.
The battle position was some 600 yards NNE of the Oahu Railway and Land Co. (OR&L) Kawaiola Station, off a narrow gauge (36’0”) railroad track that branched to the NNE from the OR&L mainline from Honolulu to Kahuku. It was on pasture land with a swamp to its rear, interspersed with Kiawe trees (Prosopis pallida), in the Kawailoa Ahupua’a (a land division usually extending from the uplands to the sea) District of Waialua, Oahu, in what became known as the Kawailoa “R” Military Reservation. General coordinates: 21.611627°N -158.091912°W, courtesy of “Google Earth” ©2013 Google, registered under Tax Map Key No.(1) 6-1-05: portion of Parcel 6, 133.373 acres owned by Kamehameha Schools-Bishop Estate.

On December 9, 1941, the armament train of Battery B, 41st CA, journeyed from Ft. Kamehameha to the Kawaiola position, pulled by a rented OR&L steam locomotive, as the sole 41st CA 2-6-0 steam locomotive had been turned over to the navy at Pearl Harbor in early 1941. Upon arrival at Kawaiola, the four 8-inch M1888 guns on M1918 barbette carriages were shunted onto separate tracks. Thereafter the site also became known as Battery Haleiwa. Battery B’s departure from Ft. Kamehameha had been delayed due to damage by Japanese aircraft on December 7, 1941, to the railroad right-of-way as it passed through Hickam Field. Battery B’s four 8-inch M1888 railway guns constituted the most formidable armament on the North Shore until the late summer of 1942, when the two naval “turret” batteries at Opaeka’a and Brodie Camp, each armed with four Mk IX 8-inch 50-caliber naval guns mounted in two Mk IX M2 dual mounts, were put in service. In May 1942, Battery B provided a large detachment used to organize the 810th CA (HD) Battery assigned to Battery Opaeka’a; the remainder of Battery B’s personnel activated Battery F, 16th CA, at Camp Kawaiola, while continuing to man the railway battle position at Kawaiola.(3)

By October of 1942, each gun position had been revetted with upright logs, salvaged lumber, and earth, for concealment and for protection against anything other than a direct hit during a bombard-
RCW, form 7, showing the layout of the Kawaiola Battle Position. The railroad tracks that bisect the spur belong to the Waialua Agriculture Co., which cultivated sugarcane in the area.

*NARA, RG 77, Entry 1007, College Park, MD*
ment or aerial bombing. One year later, bunkers built of earth and covered with either concrete or gunite were requested, because when the guns were fired, wooden splinters were dislodged from the revetment by the muzzle blast, endangering the gun crews. The Hawaiian Seacoast Artillery Command eventually decided that the cost to improve the bunkers at Kawailoa was prohibitive, and that the command did not have the resources to build better bunkers.\(^{(4)}\)

**8-inch M1888 Gun**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length in calibers:</td>
<td>32</td>
</tr>
<tr>
<td>Weight of gun:</td>
<td>33,700 lb</td>
</tr>
<tr>
<td>Loading angle:</td>
<td>0°</td>
</tr>
<tr>
<td>Maximum elevation:</td>
<td>42°</td>
</tr>
<tr>
<td>Traverse from center line (right or left):</td>
<td>180°</td>
</tr>
<tr>
<td>Muzzle velocity:</td>
<td>1,950-2,600 ft/s</td>
</tr>
<tr>
<td>Maximum range:</td>
<td>24,900 yds (14.14 mi.)</td>
</tr>
<tr>
<td>Total weight on track incl. gun):</td>
<td>156,810 lb</td>
</tr>
<tr>
<td>Firing mechanism:</td>
<td>M1903 electric or friction</td>
</tr>
<tr>
<td>Life of barrel:</td>
<td>900 rounds</td>
</tr>
</tbody>
</table>

Several projectiles were issued for the 8-inch M1888 rifle:

Armor-Piercing Shell (Navy), Mk. XX M1, 260 lbs. with Mk. X base-detonating fuze; 85.62 lbs of stacked propellant (NH powder) in two sections. The supercharge load weighed 108 lbs. Shell, H.E, Mk. I, 200 lbs., with a bursting charge of 29.6 lbs. of TNT and point-detonating M46 or M47 fuze and Mk. IIA booster. The two-section charge of smokeless NC powder weighed 85.6 lbs. Projectile, Target, M1911, 323 lbs., with 5.1 lbs. of Explosive “D” and Mk. V B.D. fuze. Projectile, Target, M1909, 260 lbs., propelled by a two-section 85.6 lb. charge.

In addition, the 200 lb. dummy projectile Mk I was used for loading drills, but not fired.

**Fire Control Radar**

By late fall of 1943, the battery was provided with an SCR-296-A fire control radar, some 160 yards ESE of the firing spurs atop a 100-foot steel tower complete with a cylindrical wooden housing, 12 ft. high and 12 ft. in diameter. Designed to resemble a water tank as a disguise, it was built under Work Order No. 600.118-A-133.0, using Drawing No. F-14/51. The transmitter and receiver were housed in a shelter, 20 ft. 2 in. by 20 ft. 6 in. The radar was capable of providing fire direction to other batteries on the north shore. The two PE-84 25 kW generators were powered by four-cylinder LeRoi engines and housed in shelters measuring 10 ft. by 15 ft. A 1,000-gallon fuel storage tank was typically provided for the generator motors. The completed work was transferred to the Hawaiian Seacoast Artillery Command on October 16, 1943. (5)
By the summer of 1945, the steel tower was dismantled and the SCR-296-A radar antenna and set were moved to Battery Arizona on southwest O‘ahu, where the antenna was mounted atop four concrete piers on the roof of the two-level battery commander’s station for the uncompleted battery.

Although the railway guns normally remained at Kawailoa, they were capable of being transported to the Puuiki alternate battle position almost five miles WSW at Waialua. On September 15, 1943, Battery F, 16th CA, was transferred, less men and materiel, to Sand Island on the island’s south shore, and the six officers and 140 enlisted men of Battery B, 16th CA, were assigned to Battery F, 16th CA. Battery B, 16th CA, was simultaneously transferred, less men and materiel, to the north shore. The former personnel of Battery F, 16th CA, continued to man the railway guns as members of Battery B, 16th CA, just as the same personnel remained at Sand Island. This was a common occurrence on Oahu, and actually represented a renaming of the two units, rather than any real transfers. (6)

In January 1944, two 12-inch M1890M1 mortars on M1918 railway cars were transported to Battery Haleiwa from the railway artillery position at Puuiki for a special landward firing problem. On February 6, 1944, two settling mortar rounds were fired by Battery B, 16th CA, in a service target practice at a water target, then 22 mortar rounds were fired into the Makua Artillery Impact Area some 10 miles southwest in a landward firing training exercise. Although Battery B only had a short period to familiarize themselves with the mortars, the exercise was deemed very satisfactory, with 17 of the 22 rounds hitting the target. (7)

The four 8-inch guns of Battery Haleiwa were fired on a regular basis from early 1942 until September 1943, but the frequency of target practices dropped after that. Target practices generally consisted of firing four or five rounds of armor-piercing (AP) ammunition at a theoretical target off the north shore. A record service practice fired on May 2, 1944, by Battery B involved firing 24 AP rounds at a destroyer-towed panel target with satisfactory results. A regular day service practice was held with the railway guns on November 9, 1944, when 24 more rounds were fired at a high-speed panel target attaining satisfactory results. (8)

Two 155 mm guns were brought to the Battery Haleiwa position in October 1944 and manned by Battery B. On October 14, the 155 mm guns fired 16 rounds for calibration from field positions. On October 19, 17 rounds of 155 mm ammunition were fired at a destroyer-towed high-speed panel target in a special day service exercise. On November 28, Battery Haleiwa fired its last two 8-inch rounds in a test firing. On December 26, 1944, the 8-inch railway guns were taken out of service and placed in maintenance status. (9)
In March 1945, Maj. Gen. Henry T. Burgin, chief of artillery, Pacific Ocean Area, oversaw a study of obsolescent armament recommended for removal. On March 27, the report was submitted to the War Department, which shortly thereafter directed that Battery Haleiwa be maintained in caretaking status pending completion of Battery Construction Nos. 408 and 409.(10)

Concluding Remarks

No physical evidence has been found of the firing spurs, which are believed to have been demolished. The writer photographed two small concrete bunkers believed to have been associated with Battery Haleiwa.

Approximate location of the firing spurs of Battery Haleiwa. Google Earth (emphasis added)

Smaller of two bunkers measuring approximately 13 ft. long by 10 ft. wide. Note the pipe protruding at the left rear of the photo. Author’s photo
Both of these bunkers included vertical pipes which rose above the roofs, possibly exhaust pipes for the PE-84 generators that powered the SCR-296-A fire control radar for Battery Haleiwa. The smaller of the two was partially buried in the ground, with an open doorway and no windows. The larger bunker had a 90 degree off-set entryway and was also somewhat buried, with no windows. A barbed wire fence prohibited entering the bunkers for a closer inspection.

In 2002, the writer was able to visit the area where Battery Haleiwa had been situated; at that time there was no evidence of railroad tracks to identify the location of the four firing spurs of Battery Haleiwa. The property was divided into paddocks where horses were boarded. On the western boundary of the property, which paralleled Kawaiola Road, railroad ties served as fence posts. However, it is unclear whether the railroad ties had been removed from the Battery Haleiwa site. A 1935 Corps of Engineers Haleiwa Quad map depicted Waialua Agriculture Company (W.A. Co.) narrow-gauge railroad tracks cutting through the property to the left of where the firing spur for Gun No. 4 was later constructed, and continuing across Kamehameha Hwy. towards the ocean. (11)
W.A. Co. leased a large acreage above the bluff behind the property for growing sugarcane and removed the railroad tracks when they discontinued using locomotives to haul sugarcane from the fields to the mill, so whether the railroad ties came from Battery Haleiwa's firing spurs or the W.A. Co. tracks is not known.

Arrow shows W.A. Co. narrow-gauge tracks which ran through the property where Battery Haleiwa was located. *War Dept.*, 1935

W.A. Co. Nos. 3 and 5 double-headed with a load of sugarcane east-bound for the mill, circa 1936. Location not specified. *Hawaiian Sugar Planters Association*

Acknowledgement

The writer would like to thank fellow CDSG member Bolling Smith for providing archival material used in this essay.

Notes


7. Ibid.

8. Ibid., p. 492.

9. Ibid., pp. 492-93.

10. Ibid., p. 493. BCN 408 never got beyond the design stage when it was cancelled, and BCN 409 was about 40% complete when it too was cancelled. Both were to be armed with pairs of 8-inch Mk VI M3A2 guns on 8-inch M1 barbette carriages.


**Additional Sources**


Coast Artillery Transport Detachments
Part II — the Southwest Pacific Area

Bolling Smith

As noted in Part I of this article (CD Journal, Vol. 28, No. 3, August 2014), coast artillery transport detachments (CATD) were formed to man the defensive armament on the army’s transport ships, providing support, both real and psychological, against attack by submarines and aircraft. The history of CATD operating out of mainland ports of embarkation, primarily New York, San Francisco, and New Orleans, was outlined in Part I. This effort expanded rapidly and then decreased equally quickly, as the navy became able to provide the necessary gun crews. The primary exceptions were the few foreign-operated vessels.

“Among the Far Antipodes”

In the Southwest Pacific Area (SWPA), soldiers, sailors, and airmen under Gen. Douglas MacArthur, Supreme Commander, SWPA, fought what often felt like separate war, ranging from the defense of Australia to the eventual liberation of the Philippines and preparations for the invasion of Japan. At the end of a supply chain stretching across the Pacific Ocean, and in a part of the world with few transportation resources, the newly created U.S. Army Transportation Corps faced a long struggle to do more with less. With sharp limits on available transport to bring in more troops, MacArthur unsurprisingly preferred combat units to support units, putting further strain on understrength transportation units.

Nonetheless, the Transportation Corps performed great feats in a daunting environment. Even in Australia, facilities were severely limited. There was no real national rail or even road network. The bulk of the transport was by sea, despite near-criminal abuses by Australian dock unions and sometimes lukewarm support from local government officials in the battle against pilfering.(1)

However, shipping by sea was exposed to Japanese submarines and aircraft. Stateside, the U.S. Navy was responsible for arming merchant ships, but in the SWPA the navy was unable to either arm or even maintain the armament of the transport fleet. In conferences held in July 1942, the navy asserted that it had no responsibility for merchant ships in SWPA except in emergencies. (Apparently World War II was not considered an emergency.) However, the navy had assumed responsibility for arming all ship in the continental U.S., and by February 18, 1943, was gradually accepting responsibility in the SWPA. A naval transport guard detachment, similar to the army’s Ship and Gun Crew Command No. 1, was being created to furnish gun crews for American ships armed with American weapons. The extent to which this would apply to army ships was not yet known, and would never be complete. The army did note that the navy had been generous in supplying arms and ammunition to the army and to the British Defensive Equipped Merchant Ships (D.E.M.S.) to arm the army fleets.(2)

Whatever the final result, the need for coast artillery transport detachments to man defensive guns on army transports was pressing. This need existed throughout the war, even though in the later years a number of vessels carried U.S. Navy and Coast Guard gun crews.

The immense difficulties involved with organizing and operating a massive transportation system supporting a large multi-national force and involving a multitude of civilians of different nationalities in a hostile environment, with insufficient men and equipment, in the face of Japanese air and naval forces, makes the accomplishments of the Transportation Corps even more impressive, but that
is beyond the scope of this brief article. For this larger picture, the reader is referred to the U.S. Army official histories, and to the historical monographs of the Transportation Corps.

As is the case with their mainland counterparts, the documentation of CATD in the SWPA is far from complete. Some records exist at the National Archives at College Park, MD, in Record Groups 407 and 495 and some are with the Force Structure and Unit History Branch, U.S. Army Center of Military History, Ft. McNair, Washington, D.C. The documentation that exists is primarily for the larger Transportation Corps units under which the CATD served – first Ship and Gun Crew Command No. 1 (S&GCC No. 1), later the 35th Transportation Corps Composite Group (renamed the 35th T.C. Service Group, February 8, 1945). These units included ships’ crews as well as gun crews. The distinction between these two groups seems to have been hazy, and it appears personnel were shifted between these groups; certainly the officers were. As a result, it is frequently not possible to clearly distinguish between army personnel assigned to CATD and their shipmates who served as part of the ships’ crews. The distinction may not have been very significant at the time, since the troops were drawn from all branches of the service and generally received the bulk of their training after assignment to the command or group. The extent to which they were cross-trained is unclear.

Under the circumstances, it is hardly surprising that documents are not entirely consistent. Most notably, Transportation Corps and Services of Supply/Army Service Forces officials in Washington seem to have had little concept of what was going on in the SWPA, at least in terms of the CATD. Statements were repeatedly made in Washington that the navy was providing all transport gun crews, but in reality, army gun crews remained active in the SWPA until after the close of the war.(3)

**Ship and Gun Crew Command No. 1**

As a first step, the 301st CATD was constituted Feb. 14, 1942, and activated four days later at Fort McDowell, CA, with men from almost every branch of the army. Transferred to overseas station when constituted, it departed San Francisco Port of Embarkation March 19, 1942, on USAT *Mariposa*, and arrived in Australia April 7. The history of the 301st CATD from its arrival in Australia until its assignment to Ship and Gun Crew Command No. 1 is largely undocumented. One of the first American Army units to arrive in Australia, it apparently was originally assigned to the Small Ships Supply Command and based at Camp Pell, Melbourne, Australia, until assigned to S&GCC No. 1 in July.(4)

The 301st CATD reported its strength on May 9, 1942:

One officer and 23 EM aboard SS *Klipfontein*

12 EM aboard SS *Van Heutsz*

7 EM aboard SS *Jacob*

9 EM to Brisbane

30 EM to Sydney with Captain McKeon

48 EM to Sydney with Captain Fahnestock

2 EM with Captain McKeon now

7 EM in Melbourne hospital

119 EM available at Camp Pell

Total Strength: 257 (5)
On May 16, 1942, the Small Ships Supply Command reported to the commanding officer, Base 4:

1. The S.S.S.C. has from time to time furnished gun crews for various ships to relieve regular gun crews while vessels are in this harbor. These crews have been furnished at the verbal request of the Transportation Service.

2. This is to advise you that the 301st C.A. Detachment, originally consisting of 256 men and 5 Officers, has been depleted by various special missions and is now less than 50 per cent. its full strength.

3. Ship Number 126, now in this harbor, has requested 3 officers, 6 N.C.O.s, 46 E.M., as of May 15, 1942. This will advise you that we are unable to furnish these gun crews for the reasons stated above and that no further personnel from the 301st C.A. Detachment will be available for gun crews in this harbor.

On May 20, 1942, the Small Ships Supply Command advised the CO, Base 4, that the K.P.M. (Dutch) ships Sibigo and Van Den Bosch would be “commissioned and armed,” the first about June 5 and the second about June 15, 1942. Both vessels would require gun crews, but, as noted in the May 16 memorandum, personnel from the 301st CA Transport Detachment would not be available. (7)

All gun crews aboard ship were to wear the same uniform. Denim fatigues were authorized on duty, while cotton or wool uniforms were optional for shore leave. All guns were to be manned from dawn to dusk and fully manned between 4:00 and 8:00 AM and PM. Half of the gun crew were to be available to man the guns while in port. (8)

On July 3, 1942, Ship and Gun Crew Command No. 1 (S&GCC No. 1) was activated in Australia “to furnish gun crews for the protection of ships, to furnish ships crews to operate the ships, to train men in the use of anti-aircraft and naval guns, to establish and operate a school of seamanship and to provide an organization to place, supply, control, and inspect the various crews sent to sea.” The 301st CATD, “consisting entirely of CAC enlisted and commissioned personnel,” was assigned to S&GCC No. 1, along with the Detachment, Offshore Patrol, Philippine Army, and the Army Transport Crew Detachment; other units might be assigned later. (9)

The next day, July 4, Col. Thomas G. Plant, chief of the Water Section of the Transportation Service (at that time, separate from the Small Ships Supply Command), wrote Col. Thomas B. Wilson, chief of Transportation Service, USAFIA (U.S. Army Forces in Australia, subsequently renamed U.S. Army Services of Supply, USASOS), Melbourne, “We have placed gun crews on practically all the foreign flag vessels operating under our coastal command, and these, in effect, operate under the direction of foreign officers. No question has ever been raised as to the legality or propriety of this action. . . the ships are officered and manned by foreign crews and American gun crews are placed aboard for the protection of the vessel and cargo.” (10)

On July 14, 1942, the Small Ships Section was established as a separate section by authority of HQ Memorandum No. 161, apparently by redesignating the Small Ships Supply Command. At that time it was not part of the Water Transportation Section, but it was later so attached. (11)

The Transportation Corps began with two primary groups of ships in the SWPA. The backbone of the “X” fleet was 21 small Dutch freighters that had been operating in the Netherlands East Indies (NEI) before taking refuge in Australian ports after the fall of Java. These vessels were chartered from
their owners, the Koninklijke Paketvaart Maatschappij (KPM). Vessels of U.S. registry in the area were taken into this “fleet,” which carried men and material north from Australia to Port Moresby, New Guinea, and eventually around the southern coast of New Guinea as far as Cape Nelson.

In addition, shallow-draft vessels were needed to navigate among coral reefs into primitive landing places on New Guinea and outlying islands. This need was met, initially, by a motley collection of luggers, trawlers, old schooners, launches, ketches, yawls, and yachts, which came to be called the “S” fleet. Vessels acquired at the start of the war to run the Japanese blockade of the Philippines were supplemented by locally made, largely Australian, ships, and by 1944, by American-made vessels, some of which were larger than what could be made locally. Because the U.S. Navy lacked the resources to manage these ships, they remained under U.S. Army control.(12)

On July 21, 1942, the SS Coast Farmer was torpedoed and sunk by a Japanese submarine about 100 miles off Sydney, Australia, and the crew was adrift in a lifeboat for 24 hours before being rescued. There were no casualties, but the need for greater means of defense was obvious.

Meanwhile, the 62nd and 64th CATD were assigned to the San Francisco POE on July 9, sailing on USAT Masaya and USAT Matagalpa. On August 5, 1942, they were demobilized and their personnel transferred to Ship and Gun Crew Command No. 1. The 62nd CATD was inactivated September 16, 1943, and both units were disbanded May 3, 1945.(13)
On August 10, 1942, Colonel Wilson, chief of Transportation Service, wrote the Small Ships Section, laying out his view of the units’ responsibility to the army ship and gun crews.(14)

3. Looking ahead, vessels in both the Water Section and the Small Ships Section will be crewed by U.S. soldiers in charge of either a non-commissioned or commissioned officer on the vessel. . . .

5. With regard to feeding and rations, the men placed aboard ship as crews will mess as a normal ship’s crew, and since the ship is provisioned and founded as a whole for the intended voyage, such provisions will include feeding of civilian employees that are on board. . . . I want our Army crews to be well fed and on a level of feeding – if not better than ordinary field feeding – if possible, at least to the maximum we can provide. I want this service and the job of joining as a member of a crew on our ships to be attractive to the men in every detail that we can make it. . . .

6. With reference to Small Boats, we cannot depend on Burns Philp & Co. to do the right thing in food supply. It must be supervised carefully and seen to that not only adequate provisions but a good cook is provided for the crew. On large ships where forty or more men are necessary for the crew, it will be desirable to have a Medical Corps Sergeant or even a commissioned Officer as part of detail to care for first-aid and emergency medical attention. . . .

7. Each Section Chief must institute some plan and follow up of checking the efficiency of crews, weeding out the inefficient members, who will be taken back to Ship and Gun Crew Command for further training. These crews on assigned vessels must have a capable non-commissioned or commissioned officer in charge of them, and to be held responsible for the discipline and efficiency of each individual in his assigned duties, and likewise see to it that all orders and instructions of the Ship’s captain or Ship’s engineer be carried out.

8. There have been numerous complaints about gun crews being sent out on ships that are not followed up on Army source to see that the men are paid at reasonable intervals, supplied with necessary clothing allowances and medical attention – in fact, the morale and discipline has been low. I want to establish a high “esprit de corps” and a pride in belonging to the Ship and Gun Crew Command among both the ship crew personnel and gun crew personnel on all of our vessels in the Water Section as well as in the Small Ships Section. . . . After a personal inspection at Sydney, I find that the recruits we have recently secured are very enthusiastic and keenly interested in the job. Give this much thought, and in order to maintain and increase this spirit and interest, we must look upon these men as our responsibility and obligation as to the maximum degree. Our Commanding General is keenly interested in this development and wants us to make a tremendous success of it, and I know that we have his support to do everything reasonable to bring this about. We want this accomplished through the spirit and interest of the men on the job and not by threats and discipline.

9. You are all experienced in handling men and we want the full benefit of all this experience in handling this job, and when these ships are in service, particularly in the combat areas, the matter of attending to the delivery of their personal mail, keeping them supplied with cigarettes and candy, and all the little personal interests that are necessary besides looking after their feeding, pay allowance, medical attention, also decent quarters aboard ship.

Thomas B. Wilson,
Colonel, A.U.S.
Chief of Transportation Service.
On August 14, 1942, Lt. Col. Christian G. Nelson, C.A.C., commander of Ship and Gun Crew Command No. 1, left Sydney, Australia, on an inspection trip which included Brisbane, Townsville, and Cairns. He returned on August 21, having inspected seven ships. X-20 (Karsik) had no gun crew, and X-9’s (Dona Nati) gun crew did not belong to S&GCC No. 1.

Conditions on X-8 (Hang Yang) were “highly satisfactory,” according to both the first officer and the gun crew. The only problem noticed was the absence of a deck gun, which was recommended. The only weapons were two air-cooled (AC) and two water-cooled (WC) .50-caliber MGs, and two .303-caliber Vickers MGs. Colonel Nelson recommended a deck gun and replacing the AC MGs with WC guns. The gun crew’s quarters were found ample and in “a good state of police.”

The master of X-14 (Swartenhondt) reported having a sergeant relieved and taken off the ship at Townsville, drunk and disorderly. The sergeant had since been reduced to the grade of private. Otherwise, neither the master nor the gun crew had any complaint. Good quarters were provided, but the state of police could be improved. The armament was in good condition.

X-16 (Tasman) was found in the same condition as X-14.

The master of X-24 (Janssens) reported having had some problem with one member of the gun crew, but this had been straightened out. Otherwise, conditions were the same as on X-14 and X-16.

The armament on S-4 (Kooraka) was in excellent condition, and the only complaint was the need for a competent cook.(15)

On October 7, Colonel Nelson reported on another inspection trip. X-20 (Karsik) had now been supplied with a gun crew and the master was “well satisfied” with them. The crew had good quarters, but wanted an electric fan in one of the staterooms. The food was good, but lacked variety. The crew reported a shortage of ammunition, but the ordnance officer had promised to send it.

On X-16 (Tasman), the master was also very well pleased with the gun crew, and the crew was equally satisfied, with no complaints. Both the quarters and the food were very good. The master and the crew did report that while “up north,” they had engaged a B-17 who caused them to suspect it had been captured and put into service by the Japanese. They reported the aircraft had dropped light bombs, but no damage was done to the ship.

On X-15 (Both), the master was well pleased with the gun crew and again the crew reported the food good, but with little variety. Gun crew quarters were a large cabin below decks, with no natural lighting. The messing situation was aggravated by the gun crew having to eat in the seaman’s mess after the seamen; on the day of the inspection this was delayed by a seamen’s union meeting. Construction was begun on a new cabin on deck for the gun crew, and the master gave assurances that the messing situation would be remedied.
The master of X-17 (Van der Lijn) was well satisfied with the gun crew, but wanted his two Vickers .303-caliber MGs replaced with 20 mm Oerlikon guns. The quarters were identical to those on X-15, but the master had nine cabins for transient officers. When not occupied, two of these were assigned to the gun crew, but the master had been instructed to hold them in case they were needed for officers, and did not feel he had the authority to assign them permanently to the gun crew. After some consultations, he was directed to permanently assign two cabins to the gun crew.

On X-10 (Cremer), the master was also satisfied with the gun crew and they too had no complaint. Three of the gun crew got in trouble ashore, and Colonel Nelson restricted a sergeant and two corporals to the ship and reduced the corporals in rank.

On X-18 (Japara), the only problem reported by the master was with the Filipino crew, and the discipline meted out was believed to have begun to correct the condition. The sergeant had several complaints, but when confronted, he admitted that they were “rather unwarranted”; he was sharply warned. The gun crew quarters were rather cramped, but new quarters were being built.

On X-28 (Balikpapan), both master and crew were well pleased. The only negative comment was that the 12 pdr gun took semi-fixed ammunition, satisfactory against surface vessels but less so against aircraft.

S-27 (Mongana) had three members on board serving as both ship’s crew and gun crew. They reported that they were not given time to maintain the guns, that they were required to work excessive hours, and that the mate did not seem to know what he was doing. Steps were taken toward relief of the mate. On S-23, everything appeared to be satisfactory. (16)
On August 24, 1942, Gen. George C. Marshall, chief of staff of the U.S. Army, directed a secret radiogram be sent to General MacArthur, strongly confirming War Department policy against the permanent assignment of coast artillery personnel as ship gun crews. “Naval replacements should be provided for coast artillery crews at present aboard vessels.” According to Marshall, the navy had recently indicated their willingness to provide nucleus crews for naval armament on army transports and other U.S. flag vessels. MacArthur was urged to discuss the matter with U.S. and Australian naval authorities, but if the problem could not be handled locally, the War Department was to be advised, with the number of ships involved and the naval personnel needed.

In addition, MacArthur was authorized to activate two additional coast artillery transport detachments locally, but only to meet his immediate needs. As soon as navy crews were furnished, the coast artillery crews were to be relieved, with the ultimate aim of disbanding all CATDs. These statements were consistent with Washington’s conception of the situation, but as time would reveal, they reflected a serious lack of comprehension of the situation in the SWPA.(17)

Since S&GCC No. 1 was created in the previous month, the personnel assigned as gun crews, “at present aboard vessels,” were from the 301st CATD. The two additional CATD authorized by Marshall were the 302nd and the 303rd.(18)

The 302nd and 303rd CATD, constituted August 31, 1942, and activated September 8 at Sydney, were to be armed with 105 mm howitzers, 75 mm guns, 37 mm AT guns, and .30 cal. AAMGs, as well as rifles, submachine guns, and grenades. The two detachments were assigned to S&GCC No. 1.
According to the history submitted by the S&GCC, when the 302nd and 303rd CATD were authorized, no personnel were assigned. The AGO card for the 303rd CATD states that no personnel were assigned to that detachment on activation, but the card for the 302nd is silent on this point. However, according to the August 31, 1942, letter from the AGO, the detachments were to be organized on roughly the level of companies, with five officers each—one captain, two 1st lieutenants, and two 2nd lieutenants. One officer was to be qualified to instruct on the 105 mm howitzer, one on the 75 mm gun, two on the 37 mm AT gun and .30 cal. AAMG, and one on rifles, submachine guns, and hand grenades. The need for instruction on rifles suggests that the troops assigned may have had little in the way of basic military training before being sent overseas. The officers were to be selected from the coast and field artillery and the infantry.

The enlisted total was to be 257 men per detachment, including one 1st sergeant, five sergeants, five corporal gunners, and one corporal clerk. Two NCOs were to be qualified to instruct on the 105 mm howitzer, two on the 75 mm gun, four on the AAMG and 37 mm (AT) gun, and two on infantry individual weapons. Like the officers, the NCOs could be from the coast or field artillery or the infantry. Also included were 85 technicians, Grade 5, (“tech corporals”) including five artillery mechanics, 10 gunners for 105 mm howitzers and 75 mm guns, 20 gunners for 37 mm guns, and 40 AAMG gunners. The remaining 160 men were to be privates first class (PFC), with 20 gunners each for the 105 mm howitzers and 75 mm guns, 40 for the 37 mm guns, and 80 AAMG gunners. Although apparently activated without personnel, the 302nd and 303rd CATD were obviously quickly manned.(19)

For almost two years, the 301st, 302nd, and 303rd CATD carried the burden of manning the weapons on army transports in the SWPA. There are few operational details for this period, but “The History and Function of the S&GCC #1” does offer some information on Ship and Gun Crew Command No. 1, up to January 30, 1943. According to this brief history, the command consisted of the 301st CATD and Army Transport Crew Detachments “A” and “B.” The 301st CATD was authorized five officers and 257 men, commanded by a captain. The army transport detachments, presumably ships’ operating crews, were also commanded by captains and authorized two officers and 154 men. The HQ and HQ detachment for the command consisted of nine officers. The CATD were organized under their table of organization, while the transport crew detachments and the HQ and HQ detachment were organized under tables of allowances.

The men assigned to the command came from a variety of branches of service, with varying levels of military training. Most were given a minimum of three weeks of “special army training” and a minimum of three weeks of seamanship training. In addition, the command formed a small cooking school to train men to cook for the crews.

Crews dispatched ranged in size from three to forty men. This placed an unusual burden on the NCOs, who could be called upon not only to supervise their men tactically, but also to attend to administrative details, to include training, supply, and messing arrangements. In effect, they functioned as mini-company commanders.

Ship and Gun Crew Command No. 1 was formed at Kincoppal Barracks, Sydney, but also established pools at advanced bases at Brisbane and Townsville, Australia; and at Milne Bay, New Guinea. These pools provided replacements for men lost due to illness, casualties, or misconduct, and whenever possible, they were under commissioned officers, who served as coordinators and trouble shooters, called upon by arriving crews to solve a wide range of problems. On July 14, 1943, the command moved to Camp Moorooka, Brisbane, and established additional advanced pools at Sydney, and at Oro Bay and Finschhafen, New Guinea, with more pools added subsequently.(20)
Throughout the war, the men of the command, and later the group, were given rigorous training in gunnery and seamanship. Gunnery training was required for the men to become familiar with a wide variety of American and British weapons, since they never knew what might be on board a ship they found themselves assigned to. This training was largely conducted at group headquarters, supplemented to the extent possible by training administered at the far-flung pools. (21)

In July 1942, 30 officers and 375 enlisted men were assigned to Ship and Gun Crew Command No. 1. By January 1943, the strength had risen to 23 officers and 661 EM, with 14 officers and 530 EM on temporary duty. Five months later, in June 1943, there were 42 officers and 788 EM assigned, with 13 officers and 433 EM on temporary duty. In January 1944, 55 officers and 1,696 EM were assigned. This strength then remained relatively constant through the life of Ship and Gun Crew Command No. 1. (22)

While not as hazardous or Spartan as life in an infantry company, ships in the SWPA were far from a life of ease. In addition to the privations that came with serving on small ships in an undeveloped part of the world, there was the ever-present threat of sudden attack.

Hostile attacks included that of September 6, 1942, when SS *Anshun* was sunk by a Japanese cruiser at Milne Bay. Two soldiers were killed and one was wounded. (23)

The SS *Barwin* was bombed and sunk in Embigo Bay, New Guinea, on November 16, 1942, with the loss of two officers and two EM of the ship’s crew. On March 8, 1943, SS *Jacobs* was severely damaged by Japanese planes, and one soldier was “grievously” wounded but later recovered.

Twenty days later, when MV *Masaya*, a former destroyer, was sunk off Oro Bay by “wave after wave” of Japanese Val aircraft, eight men were killed and two were seriously injured. Ironically, the former banana boat may have been targeted because she was mistaken for a warship, having originally served as the destroyer USS *Dale* (DD-290) before being decommissioned in 1930. On the same day, SS *Bantam* was sunk, and one gunner lost his leg. (24)
On April 14, 1943, SS Van Heemskerk was bombed and sunk in Milne Bay. When SS Portmar was torpedoed and sunk off the east coast of Australia by I-174 on June 16, 1943, one sergeant was killed and four EM were wounded.

On January 25, 1943, Technician 4th Grade Willard Parriott and Technician 5th Grade Edgar Heater were awarded silver stars for “gallantry in action on the North Coast of New Guinea” on December 6, 1942, as antiaircraft gunners on 285-ton SS Kurimaru, which was supplying U.S. forces in the area of Buna. When four Japanese aircraft strafed and bombed the ship, the men maintained continuous fire from the open upper deck and destroyed one of the attacking aircraft. In the course of the attack, Heater was severely wounded.

The hazards were not limited to enemy action. On July 26, 1942, Dolphin went down in heavy seas and 2nd Lts. Antero Halaguena and J. Tuellis, Philippine Army Off-Shore Patrol, were lost. The remainder of the gun crew clung to wreckage until rescued by a fishing boat. (25)

In contrast to the CATD operating in the Atlantic and Arctic Oceans, the primary danger in the SWPA was attack by aircraft, rather than submarine, as the Japanese largely limited their submarine operations to attacks on warships.
Record of Events, Ship and Gun Crew Command No. 1

The history of the 35th Transportation Corps Service Group contains several lengthy “records of events,” essentially logs of the events considered important, beginning January 1, 1943. Many of the entries simply say “Usual camp duties and training,” but some of the events listed were more interesting:

January 9, 1943: X-11 (Van Heutz) was attacked by Japanese aircraft while anchored at Oro Bay. No bomb hits, slight damage from strafing, no casualties.

January 15, 1943: T/5 Clarence Coburn was accidentally shot in the stomach by Pvt. Lloyd Lee’s .45-caliber pistol, on board SS Cocoble at Milne Bay.


March 8, 1943: X-19 (Jacobs) attacked by nine bombers 20 miles out of Oro Bay. Bombs dropped from 25-30,000 feet. Three direct hits and one near miss out of 15 bombs dropped. The ship sank 16 minutes later. The only casualty from S&GCC No. 1 was T/4 Daniel McCurdy, who suffered a brain concussion. Five sick or wounded passengers were also killed.

March 28, 1943: SS *Bantam* (sic – *Bantam*) attacked by dive bombers while docked at Oro Bay Harbor, catching fire and sinking; one private was wounded in the right leg, requiring amputation.

MV *Masaya* attacked by dive bombers about 5 miles east of Oro Bay. Hit by three bombs and abandoned. Seven soldiers and two civilians killed and two soldiers and three civilians wounded. Ship’s master commended PFC Hugh Whitlock for gallantry and courage for firing his guns at point-blank range, and Pvt. Vincent Geiger for devotion to duty in attending to the wounded. All the ship’s company behaved splendidly, remained cool, and gave the master every assistance. T/5 Julius Hansen subsequently awarded a posthumous silver star for gallantry in action.

April 11, 1943: X-136 (*Noora*) was damaged by dive bombers at Oro Bay. No casualties, gun crew claimed one aircraft shot down. The master of the ship had high praise for the gunners, who “conducted themselves with exemplary coolness and efficiency.”(26)

April 14, 1943: X-21 (*Van Heemskerk*) was attacked by dive bombers at Oro Bay. Ship caught fire and had to be sunk by Australian corvette. Two men wounded. Men on shore reported two aircraft shot down.

X-54 (*Van Outhourn*) damaged by bombs from high altitude at Milne Bay. The 12-pounder gun was put out of action by the first bombs. Eight men were wounded.
April 15, 1943: X-15 *(Balikapan)* was attacked by nine bombers while in Milne Bay. No great damage done and no casualties. Gun crew claimed two aircraft shot down.

April 30, 1943: 128 EM left for 4th Replacement Depot, Camp Warwick, APO 703 (Milne Bay), as a permanent change of station.


June 16, 1943: X-2 *(Portmar)* was torpedoed and sunk about 60 miles out of Coff’s Harbor, Australia, by a Japanese submarine. One staff sergeant missing in action, four men wounded. “The crew as a whole acted in a manner which reflected their training as there was very little confusion and no panic.” The ship’s master requested the same crew when he got another ship.


August 11, 1943: S&GCC No. 1 left Kincoppal Barracks and Camp Granville, Sydney, for Brisbane.

August 13, 1943: Command arrived Brisbane.
August 26, 1943: Pvt. Arthur McKee drowned off the southeast coast of New Guinea.

October 7, 1943: Accidental discharge of .50-caliber water-cooled MG during instruction. The bolt was not completely forward and bullet did not leave the barrel, but the case ruptured, causing minor injuries to four men.

November 9, 1943: Capt. John Reid assigned to 302nd CATD and assumed command, relieving 2nd Lt. Lyman Amburgey. (27)


March 12, 1944: 2nd Lt. Michael Dumke relieved 2nd Lt. John Shea in command of 301st CATD. M/Sgt Wayne Reeder, 302nd CATD, died in Sydney of natural causes.

March 14, 1944: Capt. John Reid attached and assigned to command 303rd CATD, 1st Lt. Gordon Raymond relieved of assignment to 303rd CATD and assigned to ATC Detachment “A.” Capt. Ralph Ward attached and assigned to command 301st CATD, relieving Lieutenant Dumke.

March 25, 1944: 1st Lt. Herman Kreitner assumed command of 301st CATD and ATC Detachment “D,” relieving Lieutenant Dumke.

April 7, 1944: Captain Reid returned from leave and resumed command of 301st CATD and ATC Detachment “D.”

May 2, 1944: Captain Reid went on 13-days leave. 2nd Lt. Harold Watts assume command of 303rd CATD and attached command of 302nd CATD.

May 8, 1944: S/Sgt Firrin Ford drowned at APO 322 (Finschhafen), “undetermined.”

May 17, 1944: Captain Reid returned to command 302nd and 303rd CATD.

June 6, 1944: HQ and HQ Detachment, 34rd Composite Bn, Transportation Corps, 35th Composite Group, T.C., was activated per G.O. 83, USASOS, APO 501, June 6, 1944, with Lt. Col. Herbert Weeks assigned to command, Capt. Ralph Ward as executive officer, 1st Lt. Sam Wood as S-3, and 1st Lt. Michael Dumke as adjutant, along with 8 EM.

June 10, 1944: 1st Lt. Samuel Hayden arrived from 155th Station Hospital and assumed command of 302nd CATD.

June 18, 1944: Lieutenant Kreitner assumed command of the 301st CATD and ATC Detachment “D.”

June 21, 1944: Lieutenant Kreitner went to 42nd General Hospital and 2nd Lt. James Clark assumed command of ATC Detachment “D” and 301st CATD.
June 22, 1944: HQ and HQ Detachment, 33rd Composite Bn, Transportation Corps, 35th Composite Group, T.C., was activated per G.O. 83, USASOS, APO 501, June 6, 1944. Captain Reid was assigned to command this unit, along with Capt. Frederick Hahn, 1st Lt. William Gwynn, and 8 EM.(28)

July 4, 1944: Ship & Gun Crew Command No. 1 was disbanded. Coast artillery units were commonly transferred “less personnel and equipment.” This is the reverse case. The personnel and equipment of the command were transferred to the newly created 35th Transportation Corps Composite Group. However, according to the arcane rules that govern U.S. Army unit lineage, the 35th Group was considered a new unit, not a lineal descendent of Ship and Gun Crew Command No. 1.(29)

Several things in the lengthy record of events for S&GCC No. 1 stand out. First, there was a constant rotation of officers in and out of units, and in and out of command. This was in part due to the frequent assignment of officers on detached duty, which included both inspection visits and shipboard duty at sea. Secondly, officers freely rotated between ship crews and gun crews, suggesting that the officers were not necessarily coast artillery officers, either by assignment or training. Also, it is interesting that a number of officers were listed going to or coming off leave. In some cases, it was apparently possible for officers to return home; in other cases, officers probably went to Australia. Leave for EMs was not recorded. Lastly, there was a remarkable rate of hospitalization for the officers. Many seemed to regularly rotate between command and the hospital. Whether this was due to malaria or some other factor is not given.(30)

One additional item is of interest. The monthly reports of the dispensary, S&GCC No. 1, for December 1942 and January 1943 state that medical services were provided to “Hq and Hq Det., Batteries “A” & “B,” Filipino Det. Ship and Gun Crew Command No. 1. 301st. Coast Artillery Transport Det.” It appears that the Filipino detachment was assigned to S&GCC No. 1, but not the 301st CATD.(31)

Additionally, on November 11, 1944, G.O. No. 113, U.S. Forces in the Far East, announced the award of the Legion of Merit to 2nd Lt. Guillermo M. Romillo, Transportation Corps, U.S. Army, for “exceptionally meritorious conduct in the performance of outstanding services in New Guinea from 20 October to 15 December, 1943.” His home address was that of his wife, in Cebu, Philippine Islands. A number of other officers, including Maj. Rafael Cisneros, Captain Arechavala, and Lieutenants Acosta and Romillo, had names that could be Filipino.(32)

As background, on May 19, 1942, General MacArthur ordered Filipino crew members of several vessels that had been destroyed in Australian waters or taken over by other crews, be enlisted in the Philippine Army and accepted for service with the U.S. Army. With the exception of age and literacy requirements, standards would be the same as for the Philippine Scouts. On enlistment forms, “United States” was to be struck out and “Philippine” substituted; the enlistment oath should include both the United States and the Philippine Commonwealth.

Maj. Rafael R. Cisneros was to assemble these crews and present them for enlistment at the base sections where they were located, Brisbane, Sydney, or Melbourne. They were to be enlisted in the Off-Shore Patrol, Philippine Army, and assigned to duty with the Small Ships Supply Command at Sydney. Certain ships’ officers were to be commissioned in the Off-Shore Patrol Reserve, Philippine Army, and also assigned to duty with the SSSC at Sydney.(33)
west Pacific to visit ports throughout the region to locate experienced seamen for either immediate or subsequent employment.

Wilson noted that the Philippine Off-Shore Patrol was being re-enlisted in the Regular U.S. Army, and he wanted to keep them together as much as possible, rather than splitting them up and scattering them amongst crews with other nationalities. “Great care must be exercised in putting Filipino Officers in command of valuable vessels. It may be more desirable to put on a white captain in command, but it should be someone with sympathetic understanding of Filipino and other national crew members.”

Filipinos who had not yet enlisted in the Off-Shore Patrol should be gathered up and put into this unit, as far as possible. Colonel Wilson had found a decided lack of discipline among the Filipino crews at Townsville. In addition to their uncertainty as to whether they belonged to the Philippine or U.S. Army, they complained about the failure to pay them and supply them with proper equipment. “Before any complete crew units are to be placed aboard vessels, care must be exercised to see that the team spirit, organization and discipline exists, otherwise the ship operation will not be satisfactory and trouble will result.” (34)

**Personal Recollections of Hershel Euhlers, 301st CATD**

In 1990, while in Nebraska, David Kirchner met Herschel Euhlers, a veteran of the 301st Coast Artillery Transport Detachment, who recounted some of his experiences in the SWPA. Although his recollection of organizational matters may have been somewhat clouded by the passage of time and serious illness, his observations of life on the ships are priceless and perhaps unique. Herschel’s account went like this:

I (Hershel) was born here and have lived here all my life, except when I was in the army during the war. I was an infantry machine gunner, but then got into the coast artillery, where I was a member of the coast artillery transportation group (sic). And let me tell you. If you have to be in a war, that’s the outfit to be in.

The coast artillery transportation group (CATG) (sic) was the Southwest Pacific’s version of the navy’s armed guard, which manned the guns of merchant ships. We armed the ships that sailed along the coasts of New Guinea and Australia and among the islands of that part of the world. Before the war, those ships provided almost all of the transportation in that area, linking the little outlying ports and islands to the main centers at Port Moresby, Rabaul, and in Australia.

When I got in the CATG, early in 1942, the Japanese were coming fast and the little ships that formerly had hauled supplies to the plantations and little ports in that part of the world were working hard moving Australian and American material up and down the New Guinea coast, and among the islands. It looked as if the Japanese would soon get all of New Guinea, and then have a go at Australia. There wasn’t much navy, Australian or American, so the little ships were on their own. Some of them got shot up and sunk by Japanese airplanes.

One event, in particular, led to formation of the CATG. A tug towing a large barge filled with vehicles and troops around the east end of New Guinea got worked over by some zeros. It was horrible. The tug and barge could not shoot back. The barge did not sink, and eventually the tug and barge made port with the survivors. The CATG was formed immediately.
I had been in the National Guard since 1938. We were called up in November 1940 and in February 1942 we were in Australia. It says something about how things were going in my company that I “got volunteered” for the CATG without being consulted on the matter, or even knowing that there was a call for volunteers.

I checked in to the CATG at Brisbane before I knew what it did - or was going to do. I was one of its earliest members. We provided AA defense for merchant ships. The ships ordinarily were unarmed - they might have a Lewis gun and a few pistols, but against airplanes they were helpless. We brought our own water-cooled .50 calibers (.50-caliber AAMGs) with us when we came aboard.

We usually were organized into groups of eight men with two guns. A sergeant was in charge. If it were a larger ship, we might bring four guns and more men.

When I joined the National Guard there was a waiting list. You couldn’t get in unless someone retired. The company was below strength, but there wasn’t enough budget money to fill all the slots. Beginning in 1938 there were some openings as old timers who had joined in 1918 “went out on 20.” The main reason I joined was that the drill meetings were occasions to meet my friends and I thought I would like being a member of a military team. Nebraska farms get lonesome. Sometimes it was a long cold walk to and from the drill meetings, but usually there was time for a beer or two with friends after drill.

Sometimes we drilled on weekends. We got a few dollars a month - three or four. We really enjoyed going to summer camp, usually at Fort Riley, Kansas. Life in the infantry is a lot easier than life on a Nebraska farm. I made corporal shortly after we were called up. I had my own .30-caliber water-cooled Browning machine gun and was good with it. I liked my outfit, but about the time we got to Australia, I had a little disagreement with the topkick (first sergeant-ed.) and somehow got transferred out with no notice to me.

In the CATG we sailed on all kinds of ships. I really enjoyed sailing with Aussies. They are the finest kind of people. They always treated us well. They were mostly older men – the younger ones were off with the active forces. I kept in touch after the war with some of the people I met, and probably would have gone to Australia, but I got married after the war and for my wife Australia would have been too far from her family. On the smaller ships the Aussies wore only shoes and shorts. They drank nothing but beer.

Most of the ships we sailed on were little coastal freighters. They could go into very small ports and load alongside small piers. We usually mounted one gun on either side of the bridge. Sometimes one on the bow and one on the stern.

We also sailed on sailing ships. Accommodations for the crew were pretty basic. They were arranged for crews of only six or eight men, and there wasn’t much space for six or eight soldiers. Everybody squeezed in. We had folding cots, but mainly slept on the deck. Accommodations on deck consisted of an awning. We usually brought a small library. There was no refrigeration but we ate pretty well anyway. The ships all had excellent cooks. We brought plenty of rations and canned goods, and the Aussies caught a lot of fish. There was always beer. The Aussies liked mutton a lot more than we did – and C-rations too. The sailing ships were practically fun, and even yet, warm beer is OK with me.

No ship I sailed on was attacked. In 1942 and 1943 we saw many Japanese airplanes, some passing fairly close, and once in a while we encountered a damaged ship in port. I believe few ships were sunk.
We had one man on lookout duty beside each gun at all times until it was too dark to see airplanes. The guns had hook-shaped attachments in which the gunner stood, and he could swing the gun easily, both sideways and up and down, by leaning back into the attachment and moving his body. We could shoot on a moment’s notice. If we were suddenly attacked, the gunner on watch could start firing while the others rushed up to bring more ammunition. We were all on watch and ready to shoot from an hour before sunrise until the sun was well up, and from an hour before sunset until after dark. We believed that the Japanese liked to attack when the sun was low - either rising or going down. I always assumed they would attack when they saw us and felt like it. We kept one man as a lookout all night.

There were six or eight ships on which everybody wanted to serve. They were fast, new, Dutch passenger-freighters. Usually we armed them with at least four guns. Before the war they served ports in the NEI and made runs to Australia, India, Singapore, and the like. They were set up to carry 20 or 30 passengers, but there were no commercial passengers along the north New Guinea coast during the war. So they treated us like commercial passengers. We corporals each had a stateroom and two privates shared a stateroom. We were awakened for the sunrise watch by servants bringing chocolate. We dined in the evenings with the ship’s officers. We had assigned seating - the sergeant sat on the captain’s right, and a soldier was seated on each side of each officer. Most of the officers spoke excellent English and they liked to hear American English. They were all worried about their families in Holland, and had lost Dutch and native friends in the Japanese invasion of the Indies. The ships were lucky to be afloat. Many others had been sunk. The crews were made up entirely of Asians – the only Europeans were the ship’s officers. The dining schedule was set so we could all be there, after our sunset alerts. We had cocktails before supper and the meals were splendid. I will always love curry. The bar was open to us at all times, and snacks were always available for the asking, and were often offered by the stewards, day and night.

One of those ships had a pre-WWI 15 cm Krupp gun on the stern, and about six rounds of ammunition. We drilled with the gun and would have had no problem firing off all the ammunition. As for hitting anything, that seemed improbable.

As time went on, the CATG got some 40 mm guns. I was never associated with those weapons.

I came back to the states in 1944 to be an instructor at a coast artillery school on the east coast. They were surprised to discover I had been in the coast artillery for almost three years and knew all about .50-caliber AA guns, but had never seen a coast artillery gun. I soon became an expert instructor on the functioning of the 6-inch gun. I had never seen one of those either.

Epilog

Although Herschel was a marvelous host and liked talking to someone who was interested in his wartime experiences, he was not well. By the time Lois and I (David Kirchner) got home I had a list of questions I hadn’t asked, and thought I would call and ask him over the telephone.

After a week or so I called and Mrs. Euhlers answered. She said that Herschel was sleeping. She knew he would like to talk, but chances were that he would be too weak to talk very much. I should call back in a day or two and we would see how things worked out. I called back a couple of days later, but by that time Herschel was no longer with us.
35th Transportation Corps Composite Group

HQ & HQ & Service Company, 35th Transportation Corps Composite Group, was activated at Brisbane, Australia, effective July 5, 1944, in accordance with Table of Organization 55-500. On the same date, 13 CATDs, Nos. 355-367, were activated.(35)

The “Record of Events” of S&GCC No. 1 continued with the 35th Transportation Corps Composite Group in July 1944:


The personnel assigned to these units were transferred to the 35th Transportation Corps Composite Group, APO 923 (Brisbane). This included four officers and 319 EM assigned to the 301st CATD, four officers and 320 EM assigned to the 302nd CATD, and five officers and 325 EM assigned to the 303rd CATD.

July 5, 1944: The following day, 13 CATDs, 355 through 367, were activated, per G.O. No. 107, USASOS, APO 501, 30 June 1944. In addition, the 301st, 302nd, and 303rd CATD were “reorganized.” Special Orders No. 146, S&GCC No. 1, 4 July 1944, assigned 55 EM to each CATD, with the exception of the 367th, which only received 51. In addition, each CATD was assigned one or two officers.

Although the “Record of Events” states the three original CATDs were “disbanded,” this may not be strictly accurate, or at least a matter of terminology. The AGO unit history cards describe them as “reorganized,” but not disbanded.

July 20, 1944: The 57th, 58th, 59th, and 60th Transportation Corps Composite Companies were activated and assigned to the 33rd Transportation Corps Composite Bn, which in turn was assigned to the 35th T.C. Composite Group. The CATDs were assigned to the following Transportation Corps companies:

57th T.C. Co.: 301st, 302nd, 303rd, and 355th CATD
58th T.C. Co.: 356th, 357th, 358th, and 359th CATD
59th T.C. Co.: 360th, 361st, 362nd, and 363rd CATD
60th T.C. Co.: 364th, 365th, 366th, and 367th CATD (36)

July 26, 1944: 2nd Lt. Frank Solominsky died in the 82nd Station Hospital, APO 713, a non-battle casualty.

July 31, 1944: The 35th Group had 61 officers assigned and one attached. Forty-one officers were on temporary duty, aboard ships or otherwise. There were 1802 EM assigned and 33 attached, with 1523 on temporary duty. The previous patterns continued, with officer personnel frequently rotating between units, as well as on and off sick leave.

August 18, 1944: The 35th Composite Group left Brisbane and arrived at Oro Bay, on the north shore of the eastern end of New Guinea, August 26.(37)

On September 8, 1944, most CATD had two officers, except for the 302nd and 364th, each of which had just one. The EM strength of the CATD ranged from 38 to 59, with a total CATD strength on September 8, 1944, of 30 officers and 677 EM. This was roughly 40% of the total 1738-man EM strength of the 35th Group, and over half the 58 officers, as of August 31, 1944.(38)

September 12, 1944: Group pool established at Brisbane.
SS William E. Channing, at Los Angeles POE, September 24, 1942. 
NARA Still Pictures 111-SC-WWII 282660.

September 16, 1944: SS William E. Channing entered the Zee Van Halmahera, south of the island of Morotai in the NEI, and departed October 10. During these 25 days, she was alerted 52 times, and the sector was raided 20 times by Japanese aircraft. She was in the direct line of attack on six occasions, and fired on enemy aircraft five times. Remarkably, there were no casualties from these attacks, although several small holes were punctured in the stern. On three occasions, shrapnel from AA guns ashore was found on the deck.

September 19, 1944: Pool established at Hollandia, New Guinea.

Port at Hollandia, New Guinea, NEI, December 21, 1944. NARA Still Pictures 111-SC-WWII 291090.
October 24, 1944: SS *Jassens* arrived in convoy at Tacloban, Leyte, P.I. The next day, during the first attack, a destroyer shot down one twin-engine bomber. Six planes then approached from different directions, but turned away when heavily engaged. Again, one was shot down in flames by a destroyer to starboard, while a second crashed in flames about a mile away. The only casualties were one minor injury. Over the next three days, Japanese aircraft made frequent harassing attacks, and the ship’s gunners fired on enemy aircraft 10 to 15 times. During the night, enemy soldiers ashore fired at the ship, which was not allowed to return fire for fear of hitting friendly troops. When P-38 fighters arrived, the air raids diminished sharply.

October 25, 1944: U.S. Army *LT-131* had just arrived at San Pedro Bay, P.I., when she was subjected to nine days of almost continuous bombing and strafing by Japanese dive bombers and fighter aircraft. The crew’s claim to have shot down one dive bomber was subsequently verified.

November 12, 1944: At Morotai Island, NEI, six Japanese bombs straddled the *TP-249* and *FS-10-A*. Neither ship was directly hit, but apparently near misses caused casualties, and purple hearts were awarded to four soldiers. During this time, several ships were the subjects of air attack.

November 13, 1944: While near the Philippines, the destroyer escorting X-105 (*British Columbia Express*) detected approaching Japanese aircraft at high altitude. The destroyer is believed to have shot one down, and a few minutes later three aircraft approached at approximately 1000 feet. Defensive fire from X-105 broke up the formation and three bombs fell astern of the ship. As the aircraft fled, one was shot down in flames about 300 yards off the port bow. There were no casualties and the only damage sustained was a hole in the mainmast, believed to have been caused by an aft gunner during the first attack. (The record does not clarify whether the gunner was on the ship or on an aircraft.)

Damage to X-17, SS *Van der Lijn*, and docks at Saidor, New Guinea, NEI, September 18, 1944. 
*NARA Still Pictures 111-SC-WWII 287072.*
December 5, 1944: The convoy in which SS Anhui was sailing off Mindanao, P.I., was subject to repeated torpedo, dive bombing, and kamikaze air attacks. Officers and men of Anhui’s gun crew, as well as the ship’s officers and troops carried as passengers, assert that the Anhui shot down one kamikaze. On December 10, a kamikaze making a run at Anhui was effectively engaged by the ship’s guns, and at the last minute the aircraft peeled off and struck another ship.(39)

December 31, 1944: The 35th T.C. Composite Group ended 1944 with 67 officers and 1947 EM assigned and attached. Of these, 43 officers and 1604 EM were on temporary duty, either aboard ship or on other duty. The record of events continued for 1945, following that for 1944.

January 1, 1945: The year began with an attack on SS Mulcra, returning to Hollandia from the Philippines on January 1. First, a fighter-bomber dropped a bomb off the port bow and about 20 minutes later a torpedo plane made an attack on a nearby liberty ship. The aircraft’s path exposed it to intense and accurate fire from Mulcra’s 40 mm, 20 mm, and .50-caliber guns, which were observed to be on the target. The aircraft began to weave from side to side, and dropped its torpedo ineffectively. The Mulcra’s officers and crew believed their effective fire saved the liberty ship, which was unable to fire in its own defense.

February 2, 1945: The group was redesignated the 35th Transportation Corps Service Group. Subsequently, the names of the assigned battalions and companies were similarly changed. That same month, a group pool was opened at Manila, P.I.

March 24, 1945: T/5 Claire Klein, a driver in the motor pool, died in the hospital of scrub typhus fever.

April 1945: The group headquarters at APO 503 (Oro Bay) operated pools at APOs 70 (Dagupan, Luzon, P.I.), 72 (Tacloban, Leyte, P.I.), 75 (Manila, Luzon, P.I.), 322 (Dreger Harbor, New Guinea), 565 (Goodenough Is.), 920 (Cairns, Australia), 923 (Brisbane), and 927 (Sydney).(40)

That month, the group headquarters was moved due to the high incidence of sickness at APO 503. An important addition to morale was the construction of barracks, replacing the tents which had been used for years.

On May 19, 1945, the group headquarters at Oro Bay was closed (41), reopening the following day at Manila. During this time, many of the larger Dutch ships were transferred to the British, and U.S. Army ship and gun crews were transferred to generally smaller vessels. For the next several months, the group enlarged and improved their new base.

With the Japanese surrender, the strength of the group began to decline, and in the month of November, it decreased from 1,514 to 904. Since the group was heavily involved providing shipping in the theater, this placed a heavy strain on the remaining personnel. As there was no longer a need for defensive armament, it seems probable that the CATDs were utilized as ships' crews, but there is no mention of this in the record of events.(42)

On April 1, 1946, the 301st, 302nd, 303rd, 355th, 356th, 357th, 358th, 359th, 360th, 361st, 362nd, 363rd, 364th, 365th, 366th, and 367th CATD were inactivated at Manila, P.I., effective April 1.(43)

Total Strength of Ship & Gun Crew Command No. 1 - 35th Transportation Corps
Composite Group - 35th Transportation Corps Service Group, July 1942 – April 1946.(44)
On February 10, 1946, the 33rd Transportation Corps Service Bn was inactivated, along with the 57th and 58th T.C. Service Companies. On April 1, all 16 CATD in SWPA were inactivated, and on May 31, 1946, the 35th T.C. Service Group was inactivated.\(^{45}\)

**Weapons of the CATD**

Between 1942 and 1945, CATD manned a wide variety of weapons on vessels in the SWPA. In addition to U.S. Army guns, these included weapons of the U.S. Navy, British/Australian weapons, and weapons purchased by the Dutch. An inventory lists the armament on hand, either on army operated vessels or in depot stock, as of July 10, 1944. As usual, the Transportation Corps made no reference to the source of the crews manning the weapons, and the figures may include weapons manned by U.S. Navy and Coast Guard crews.\(^{46}\)

**Machineguns**

Initially, 500 M1919A4 Browning .30-caliber machineguns on Cygnet mounts were provided, but neither the Cygnet mount nor locally produced alternatives were considered suitable, and in any event, .30-caliber machine guns were entirely ineffective against modern aircraft, although a number of Vickers .303-caliber guns remained until they could be replaced by something more lethal. In November 1942, it was decided that no vessel armed with only .30-caliber MGs would be sent into the combat zone, and .30-caliber MGs installed on small ships were gradually replaced by .50-caliber MGs.\(^{47}\)

The M1921 and the improved M2 .50-caliber Browning MG were important antiaircraft weapons. M1921 AA MGs, common in the U.S. Navy at the start of the war, were eventually replaced by the M2. Both models came in water-cooled (WC) and air-cooled (AC) “aircraft” types. The WC gun was initially issued to coast artillery antiaircraft units, but was subsequently replaced by the AC gun when it was found that antiaircraft use did not require extended firing. Still, the changeover for the CATD was not rapid, and on July 10, 1944, there were 302 WC guns and 417 AC guns, 133 WC guns...
and 26 AC guns aboard “X” fleet vessels, and 95 WC and 280 AC guns aboard “S” fleet vessels. The remaining 185 guns had not been issued. One source of confusion is the frequent reference by Australian and British sources to the “Colt .50-caliber machine gun.” This is believed to refer to Browning guns, which were manufactured by Colt. (48)

On January 23, 1943, 2nd Lt. Hal R. Harmon, ordnance liaison officer, compared the WC and the AC machine guns. Based on his observations and experience as gunnery officer on three ships carrying such weapons, he concluded that AC guns were superior to WC guns because they required less manpower, were easier to install and maintain, and were more reliable. While the WC gun was better for prolonged firing, that was almost never needed in antiaircraft fire. (49)
These .50-caliber MGs were installed on several mounts, both pedestal and tripod. Two twin-gun mounts were used, the M46 pedestal mount for WC guns and the S-2 tripod mount for AC guns. A total of 58 twin mounts were in stock in July 1944. Seven models of single-gun mounts were in stock then - one S4 tripod mount and six pedestal mounts, the M3, M39 (for AC), M43 (for WC), the “M2 A1, modified, w/shields and handlebar assembly,” the “mount, improvised, braced pipe,” and the U.S. Navy Mk VI. By July 1944 the “improvised mounts” were being replaced and scrapped as rapidly as possible. A standard feature of all the mounts was armor plate to protect the gunner.
Water-cooled M2 Browning AAMG on tripod mount. *NARA, RG 495, Entry 372, Box 2092.*
20 mm Oerlikon Guns

The most common crew-served weapon in July 1944 was the 20 mm Oerlikon automatic gun obtained from U.S. Navy and British/Australian sources; 383 were in stock. This excellent weapon fired 475 4.3-ounce explosive projectiles per minute, at 2750 fps, to an effective range of approximately 1000 yards. The guns were mounted on a variety of mounts - Mk 2, Mk 3A, Mk 4, Mk 5, Mk 6, and Mk 10, of which the Mk 4 and Mk 6 accounted for 78%.

Single 20 mm Oerlikon AA gun, manned by army crew on board a troopship, April 7, 1943.
NARA Still Pictures 111-SC-WWII 177970.

40 mm Guns

In 1944, the 40 mm Mk I gun on its Mk 3 mount began to replace the 20 mm Oerlikon as the primary antiaircraft weapon. This outstanding weapon fired 160 2-pound shells a minute, at a velocity of 2890 fps, to an effective range of 3,300 yards. By July of 1944 however, only 21 were yet in stock. During the remaining 13 months of the war increasing numbers of these weapons were delivered and installed.(50)
Naval Deck Guns

Naval deck guns generally ranged from three to five-inch. Low-angle mounts were suitable only for engaging enemy vessels on the surface, while dual-purpose (DP or HA/LA) mounts were also suitable for antiaircraft fire.

Three models of 3-inch guns were in use in 1944: The 12-pounder (3-inch) British gun on HA/LA mount (17 in stock), the U.S. Navy 3-inch/50 gun on low angle mount (3 in stock), and the 3-inch/50 DP gun on Mk 21 and 22 mounts (21 in stock). All fired 13 lb. shells.

Two models of 4 in/50 guns were used, a U.S. Navy low-angle gun (11 in stock) and an HA/LA Australian gun on Mk 23 mount (only 3 in stock). The sole model of 5-inch gun in stock in 1944 was the 5 in/50 U.S. Navy low-angle gun, and only one was in stock. Krupp 15 cm (5.9-inch) guns were also reported on some of the Dutch ships in the “X” fleet. (51)

Army 37 mm M3 Anti-Tank Guns and 75 mm M1897 Field Guns

Initially, army 37 mm M3 anti-tank guns and 75 mm M1897 field guns were also issued. Neither was ideal, or perhaps even adequate. The improvised mounts and inadequate fire control equipment made these weapons suitable for emergency use only (and perhaps for morale value).

The 37 mm gun was the standard early-war anti-tank gun, removed from its wheeled carriage and placed on a tripod mount. It could traverse freely, and was elevated 15° by handwheel.
The July 10, 1944, inventory lists the 75 mm gun as a model M2A3, but this confuses the M1897 gun and the M2A3 carriage. The inventory includes a “ship mount” for the 75 mm gun and a tripod mount for the 37 mm gun, both manufactured locally. By July 1944, only five 37 mm and seven 75 mm guns remained in stock, all aboard vessels.

For the 75 mm gun, one of the biggest drawbacks was the panoramic sight issued with that gun, which was not designed for direct fire. As a result, the Ordnance Department designed and issued a makeshift “marine-type” open sight, with a greater field of vision and the ability to more rapidly adjust on a moving target.

On the positive side, one of the greatest advantages to the use of 75 mm guns was the relatively large amount of ammunition available, which allowed for more extensive target practice than with any other deck gun. The value of the 75 mm gun was debatable. It was not believed that a Japanese submarine would “waste” a torpedo on ships of the size in question; the submarine was much more likely to surface and attack with shellfire. In such a case, the advantage rested with the submarine, due to the difference in the size of the two targets and the superior weapon carried by the submarine. On the
other hand, if the machine guns on the ship could keep the submarine’s gun crew below deck, the odds of a successful defense were considerably increased. This assumed, however, that sufficient personnel were available to man both the 75 mm gun and the machine guns, which was not always the case. The 75 mm did have greater power and range than the 37 mm, but the sighting equipment for the 37 mm, designed for direct fire, was superior to either the panoramic sights for the 75 mm gun, or the open sights designed as a shipboard replacement.(52)

An additional, if odd, army weapon was the 105 mm howitzer. Fifty of these guns were shipped to the SWPA, with the intent of trading them for 75 mm guns in the hands of field artillery units. A total of 49 75 mm guns were obtained in this manner, from the 147th and 148th Field Artillery Regiments. The swap made good sense, as the howitzers, with their relatively low velocity (1550 fps) and curved trajectory were entirely unsuited for engaging enemy surface ships or submarines. However, as was often the case in the SWPA, the issue was confused. The 302nd and 303rd CATD were activated September 8, 1942, with 105 mm howitzers as part of their armament, and one officer and two NCO were required to be able to instruct on the howitzers. This may simply have been a case of someone not being let in on the deal. Whether any of the howitzers were ever actually mounted on shipboard is unknown.(53)

**Rocket Weapons**

The most unusual weapons were no doubt the rockets. All were British designs, emergency inventions designed to counter German air attacks in the early years of the war, when the British arms industry was fully committed to other projects. An additional advantage was that they did not require spe-
cial training. None were strikingly successful, and they perhaps came under the classification of “better than nothing.” Rocket launchers were primarily installed on larger, “X” fleet, vessels, not to supplant the guns, but to supplement them. All were designed for use strictly against low-flying aircraft. Most were continually modified and upgraded, so technical specifications are not always consistent between different marks and as reported by different sources. With all the rocket launchers, the reloading times were a primary drawback. On the other hand, they were particularly useful in the case of surprise attack, as they could be initially fired much more quickly than an antiaircraft gun. The scale of arming called for 2-4 pillar box rocket guns, 4 FAM, and 2 PAC for each large transport, with lesser numbers for smaller ships.(54)

Inside of firing position for 2-inch pillar box rocket gun, showing sight.

*NARA, RG 495, Entry 372, Box 2092.*

The 2-inch Mk II UP pillar box rocket gun (so termed because of the resemblance to the standard British post box) used a 20-tube rocket launcher to fire 2-inch rockets to a maximum altitude of about 4500 ft. “UP” referred to “unrotated projectile,” an early British code name for antiaircraft rockets, which were fin stabilized and did not spin. The operator was seated within a rotating steel turret, with an open sight to aim the rockets. To account for wind and roll, the launcher could traverse 95° to starboard or port, and 45° forward or aft. The result produced a barrage pattern 50 yds. in diameter at a range of 1500 yds. The rockets carried a thin wire to, hopefully, entangle the wings and/or propeller of a low-flying aircraft. Up to 20 rockets could be launched at a time, in groups of five. In July 1944, 21 were still in stock, all installed on “X” fleet vessels.(55)
When compared with the 40 mm Bofors gun in April 1944, the primary advantage of rocket systems was that, if both systems were in perfect firing order, the rockets had a greater probability of destroying a low-flying aircraft. However, there were several drawbacks to the pillar box “rocket guns.” The biggest was the difficulty of keeping them operational. Without a skilled electrician, the system was virtually certain to fail. Also, before the rockets could be fired, all nearby crewmen had to take shelter from the blast, abandoning their weapons at the crucial moment. Lastly, the rocket system required three to four minutes to reload, which could be critical in a determined attack.

It was agreed that the 40 mm Bofors was preferable, but the Australian navy opposed replacing pillar box rocket guns with Bofors, due to the labor involved. It was therefore agreed that all new construction would receive Bofors instead of rockets, while rockets would only be replaced with Bofors in exceptional circumstances, when labor was available.(56)

However, by April 10, 1945, Lieutenant Lavoie, armament officer, 35th TC Service Group, cited repeated failures to fire and the lengthy time to reload, and reported that the pillar box rocket gun “has proved so unsuccessful that they are being removed from all operational vessels and being replaced by 40 MM Bofors.”(57)

PAC (parachute and cable) rocket projectors consisted of a drawn steel tube on a base plate screwed to the deck. The firing cartridges were inserted into the hinged breech, and the percussion firing mechanism was operated by a lanyard. A 60-grain cartridge was used to ignite the rocket charge and start the rocket in motion. The head of the gunpowder rocket from which the cable was projected housed the upper 38-inch parachute in a tin container. This parachute was ejected by a small gunpowder charge. A galvanized metal box on the deck contained 400 ft. of cable. The lower 38-inch parachute was shackled
PAC rocket launcher, possibly on a test mount. NARA, RG 495, Entry 372, Box 2092.
to the lower end of this cable by a 90 ft. tripping cable. When the main 400 ft. cable was clear of the ship by 90 ft., the tripping line pulled the lower parachute out.

Since the PAC reached its ceiling in 5 seconds, assuming an aircraft speed of 250-300 fps (170-205 mph), the rocket should be fired when the aircraft was 500-700 yards away. A simple, locally-constructed sight was recommended to aid the gunner in determining the proper firing instant. In the absence of the sight, the gunner was to extend his arm and fire the rocket when the wingspan of the aircraft filled the gap between the first and second knuckles of his clenched fist. It was better to fire too soon rather than too late. If possible, the lanyard was to be run to where it could be immediately activated by the officer of the watch in the wheelhouse.(58)

The small rocket shot vertically 550 ft. into the air, trailing the 400 ft. steel cable, which then descended by parachute. The rockets were grouped in batteries of nine, to be launched simultaneously. The idea was to create a web of steel cables in the path of a low-flying aircraft, causing it to catch the wires and crash. The British Admiralty claimed that 60% of aircraft striking a wire were brought down for certain, 20% were probably brought down, and 20% escaped because the wire was cut by the propeller. Later versions had an additional explosive charge hung at the bottom of the cable, intended to detonate on contact with the aircraft.

The PAC was the most common rocket launching system, and in July 1944, 158 such devices were in stock, 92 on “X” fleet vessels, 16 on “S” fleet vessels, and 50 in the depot.(59)

The fast aerial mine (FAM) was a fin-stabilized 7-inch-diameter rocket that trailed a wire in the path of an aircraft. The weapon had 20 smoothbore tubes, fired 10 at a time. A small cordite charge ignited a rocket motor, which propelled the rocket about 2,000 feet out of the tube, where it exploded and released an 8.4-ounce (240 g) mine attached to three parachutes by 1000 feet of wire. The parachutes would keep the mine suspended over the ship for nearly five minutes, providing a visible deterrent to low-flying pilots. An airplane hitting the wire would draw the mine towards itself, where it would (hopefully) detonate. Due to the blast from the rockets, a 10-foot safety area around the launcher was necessary. Only 14 FAM were in stock in July 1944, 12 on “X” fleet vessels and two on “S” fleet vessels. Perhaps it greatest disadvantage was the amount of space it required, especially on small vessels. In general, it was not well thought of.(60)

The situation was complicated when the U.S. Navy requested that no rocket weapons, other than PAC projectors, be installed on their merchant ships. Other launchers, if already fitted, should be removed before the ships returned to the mainland. After conferring with Seventh Fleet naval authorities, it was agreed that rocket weapons would only be installed on ships assigned specifically to the SWPA and not expected to return shortly to the United States.(61)

The number of documented air attacks on armed merchant ships was small, but the records do not indicate any instances where rockets successfully downed attacking Japanese aircraft. Whether the presence of these weapons influenced Japanese tactics against such low-level attacks is impossible to ascertain.

**Individual Weapons**

In addition to weapons intended to protect against enemy aircraft and naval vessels, ship and gun crews were also issued standard infantry-type personal weapons. Initially, on May 26, 1942, the policy was to arm the gun crew commander with a .45-caliber pistol and the remaining crew members with .30-caliber rifles. One quarter of the gun crew were to be armed with Thompson sub-machine guns.

There is considerable question as to the extent that tables of organization (T/O, later tables of organization and equipment, TO&E) were complied with in the SWPA, but T/O 4-377, December 28,
1941, prescribes .45-caliber pistols and .30-caliber rifles, while TO&E 4-29, May 9-1944, replaced the .30-caliber rifles with a combination of .45-caliber pistols and .30-caliber carbines. The final revision of TO&E 4-29, September 27, 1944, replaced all the carbines with pistols. The reasoning behind the rifles and carbines was obviously re-thought. What the need would be for them on vessels armed with machine guns is not at all clear.\(^{(62)}\)

On July 10, 1944, 188 M1911 .45-caliber pistols were in stock, with 177 on vessels; along with 327 .38-caliber Colt and Iver Johnson revolvers, of which 228 were onboard. The majority of these revolvers appear to have been Iver Johnson. Shoulder arms included .30-caliber rifles, both M1903 and M1; a total of 459 were in stock in July 1944. M1 carbines were originally issued, but were later withdrawn; by July 1944, only 22 were in stock. Fifty-three M1928A1 Thompson sub-machineguns were in stock, with 46 on shipboard, out of 500 sub-machineguns brought to Australia. The remaining SMGs were re-issued to infantry units, where they were considered better suited.

Interestingly, one document cites the need for pistols for the master and first officer on the vessel “in order to control the crew.” Complicating the matter was the extreme shortage of jacketed .38-caliber ammunition, needed to comply with international law. This was exacerbated by the practice of Australian seamen acquiring non-jacketed lead ammunition from private sources. The initial response had been to prohibit the issuance of the .38-caliber revolvers, but it was eventually decided that if the Ordnance Department did not issue lead ammunition, it could not be held responsible for ammunition acquired by ships’ officers, and issuance was resumed.\(^{(63)}\)

The armament of most vessels evolved over the course of the war. One example was X-6, SS Anhui, a British-flagged troopship owned by China Navigation Ltd. She was 358 ft. long and 49 ft. 3 in. on the beam, with a draft of 21 ft. 7 in. and 3494 gross tons. She could quarter 567 troops, with another 300 on shelter decks. Her crew was 61 officers and men and her endurance was calculated at 17 days/4400 miles, on 382.6 tons of fuel oil, at 11 knots.\(^{(64)}\)

The first reference to arming the Anhui was on June 11, 1942, when a 6-man gun crew was authorized to man one 3-inch dual-purpose stern gun and three .50-caliber AC “Colt” MGs. On November 11, 1942, she was reported armed with one 3-inch naval gun (type unspecified), three .50-caliber AC AA MGs, one Vickers .303-caliber MG, and four M1903 .30-caliber rifles. The 3-inch ammunition was divided between 79 low-angle and 42 “high-angle” (presumably AA) rounds. The gun crew had been increased to eight men.

On July 15, 1943, she was armed with a 3 in/50 deck gun on Mk XX Mod. 1 mount, one 2-inch (pillar box) rocket gun, four 20 mm Oerlikon guns, four .50-caliber AC AA MGs, and one .45-caliber pistol. The ammunition for the 3-inch gun was listed as 6,500 rounds of “common AA,” but this appears to be a typo, since it is the same number as for the 20 mm guns. By this time she carried a 24-man gun crew.

On January 10, 1944, a report shows her armed with one 4-inch Australian deck gun, four 20 mm Mk 2 guns on Mk 5 mounts, four .50-caliber WC MGs, and one .45-caliber pistol. An officer had been added to the 24-man gun crew.

On January 20, 1944, she was reported as having one 4 in/50 Mk XXIII deck gun on Mk 19 mount, aft on the poop deck; four 20 mm Oerlikon guns on Mk 4 mounts, two on the fly bridge and two on the boat deck; four .50-caliber WC AA MGs on M2A1 mounts, two on the fo’c’sle and two on the poop deck; one 2-inch UP pillar box rocket gun mounted aft; four FAM rocket projectors mounted as two twin weapons; and four PAC rocket projectors, mounted in pairs on the fly bridge. Incidental armament continued to include one .45-caliber pistol, but still no rifles or sub-machine
guns. A month later, she had picked up four .30-caliber rifles and a second .45-caliber pistol and was slated for two more rifles under “ultimate armament desired.”

A September 29, 1944, report does not list the PAC and FAM rockets. The October 9, 1944, report lists the same armament as in January, but with no .50-caliber MGs, although 11,000 rounds of .50-caliber ammunition were on hand. The gun crew still consisted of 24 EM and one officer.(65)

Around early April 1945, Base Ordnance, APO 923, requested a Bofors 40 mm gun for Anhui, but “headquarters,” presumably USASOS, disapproved, as it was not part of the approved armament for the Anhui. Lieutenant Lavoie, group armament officer, appealed to the commanding general, USA-SOS, arguing that Anhui’s present armament, one 4 in/50, four 20 mm, four .50-caliber MGs, and one pillar box rocket gun had proven “inadequate to insure maximum anti-aircraft protection.” The present plans were to remove the rocket gun, which “has proved so unsuccessful that they are being removed from all operational vessels and being replaced by 40 MM Bofors.” In addition, the four .50-caliber MGs were to be replaced with 20 mm guns, which would increase the maximum effective AA range from 1000 to 2000 yds. and provide an explosive shell.

Under the assumption that the earlier request would be approved, the rocket gun and the .50-caliber MGs had already been removed from the Anhui, so prompt approval was requested. HQ, Australia Base Section, USASOS, APO 923, recommended approval but Maj. Gen. James L. Frink, CG, USA-SOS, disapproved the request, as “The subject vessel was not being scheduled for forward areas and therefore no change of armament is contemplated by this headquarters at this time.”(66)

An undated, possibly final, report, shows the 4-inch deck gun still in place, along with nine 20 mm Oerlikon guns. All the other armament, including the .50-caliber MGs, the rocket weapons, and the small arms, had been removed.(67)

Except when navy armed guards were aboard, the proper use and 1st and 2nd echelon maintenance of armament aboard was the responsibility of the master of the vessel. When an army gun crew was aboard, this function was normally delegated to the gun crew commander, but the master was ultimately responsible. Masters were warned about practice firing guns larger than 20 mm when their vessels were empty; the vibrations could damage the ship.(68)

By January 1943, it had become evident that there was a need to coordinate the ship arming program in the SWPA, between the U.S. Army Transportation Corps and Ordnance Department, and the American, Australian, and Dutch navies. The chief transportation officer and the chief ordnance officer selected 2nd Lt. Hal R. Harmon, who had been a gun crew commander on army-operated vessels in the SWPA. Harmon was to coordinate arming both existing ships and those being constructed. By July, the need was found for armament sections at the various bases at major ports.(69)

On April 28, 1943, Lieutenant Harmon recommended the following general scales for assigning gunners and providing accommodations for them:

A Scale: For “X” fleet vessels, and for “S” fleet vessels where sufficient accommodations were already provided:

<table>
<thead>
<tr>
<th>Weapon</th>
<th>Minimum trained gunners</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 pdr, 3, 4, &amp; 4.7 in</td>
<td>4</td>
</tr>
<tr>
<td>75 mm and 40 mm guns</td>
<td>3</td>
</tr>
<tr>
<td>37 mm and 20 mm guns</td>
<td>2</td>
</tr>
<tr>
<td>.50 cal MGs</td>
<td>1</td>
</tr>
<tr>
<td>Pillar box rocket gun</td>
<td>3</td>
</tr>
</tbody>
</table>
B Scale: For small ships where space for accommodations was restricted:

<table>
<thead>
<tr>
<th>Weapon</th>
<th>Trained gunners</th>
<th>Auxiliary gunners from ship’s crew</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 in and 12 pdr guns</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>75 mm and 40 mm guns</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>37 mm and 20 mm guns</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

For .50-caliber MGs when gunners for heavier armament were aboard to maintain the guns and instruct the ship’s crew, all that was necessary was one auxiliary gunner per gun. When no heavier armament was provided, one trained gunner for each two MGs was necessary, along with one auxiliary gunner for each two guns. (70)

One constant problem throughout the war was the inherent contradiction of soldiers serving aboard ships alongside civilian sailors who were paid a much greater salary and who were not subject to the same discipline.

On February 6, 1944, Maj. Gen. James L. Frink, CG, USASOS, issued a directive relative to gunners for ocean lighters and fast supply boats. It stated, in part: (71)

3. Primary duties of the gunner assigned to each of the above vessels will be to properly maintain all armament and ammunition aboard, to train civilian crew members in the use of cal. .50 machine guns, and to man the 20mm gun in event of attack. Civilian crew members will be expected to man the cal. .50 machine guns and assist the gunner in loading and operation of the 20mm gun.

By indorsement, Colonel Nelson, commanding S&GCC No. 1, objected strenuously:

It is desired to call the attention of higher authority to the fact that it is not believed desirable to utilize enlisted personnel in this manner. . . . the soldier assigned will be responsible, among other things, for the maintenance of all armament on board and the training of civilian gun crew members in its use. . . . The soldier assigned can have no authority over the civilians, and if they fail, or refuse to cooperate, he is the one who will be held responsible for the conditions of materiel on board. In order to avoid censure or possible punishment the assigned will find it necessary to service all the weapons and clean them after firing. In doing this, he will be cleaning up after men who are being paid much greater sums than himself. It is believed that it may develop into a fruitful source of disciplinary trouble if this directive is complied with.

It is requested that this directive be rescinded and that duties enumerated in Par. 3 be assigned to crew members.

The last entry in the file indicates that the commanding general, Base Section 3, APO 923, concurred with Colonel Nelson’s recommendation.

There are virtually no references to CATD units in the records of the Transportation Officer in SWPA. It appears that personnel were considered interchangeable between ships’ crews and gun crews, to a greater extent than in other theaters.

The initial policy of S&GCC No. 1 was to assign a commissioned gunnery officer whenever the gun crew consisted of 16 or more gunners. This frequently required a written request for a cabin for the officer. Accommodations in general were often severely limited. Many of the vessels only had berth and mess space for their small assigned ship’s crew, and when gun crews were added, considerable effort
was often required to provide adequate accommodations. However, from the beginning, the policy was “Gun crews are to have adequate and comfortable quarters readily accessible to gun positions.”

Considerable correspondence documents the strong support of the Office of the Chief Transportation Officer, SWPA, for providing the gun crews adequate quarters and messing facilities. Written instructions ordering gun crews aboard vessels frequently contained the notation that the ships had been inspected and that the quarters were adequate. In some instances, gunners would not be assigned where quarters were not available and the ships’ crews were made responsible for manning and maintaining the guns.(72)

In some cases, such as on 113 ft and 120 ft ocean lighters, and 112 ft fast supply boats, there were insufficient accommodations for gun crews. In such cases, six military personnel were assigned to each vessel as a combination ship’s crew and gun crew. These men were expected to perform the normal duties of a ship’s crew, while also maintaining the armament and manning it in the event of an attack. The ocean lighters were to carry one 20 mm gun and two .50-caliber MG, while the fast supply ships would carry an additional .50-caliber MG.(73)

One interesting piece of correspondence relates to gunner’s quarters on the SS Karsik. It notes that “The army gunners’ quarters are in very close proximity to the quarters and kitchen of the native crew, and for white men, the foul odors are unbearable.” The Royal Packet Navigation Co., Ltd., responded that they had inspected the vessel, and agreed that the smell of the crew’s kitchen was indeed “not pleasant,” and proposed to build permanent crew’s kitchens on the aft deck.(75)

On SS Lorrina, a canvas-covered frame was erected on the poop deck for a crew mess room. The memorandum notes that this arrangement was satisfactory to both the gun crew and the “chief officer” of the Lorrina.(76)

On July 31, 1944, the 35th TC Composite Group provided 408 men as gun crews on 46 “X” fleet vessels, 356 men on 88 “S” fleet vessels (including combined ship and gun crews), and 51 men on 24 other ships (including 18 combined ship and gun crews).(74)

As the war neared its end, Ship and Gun Crew Command No. 1, and its successors the 35th Transportation Corps Composite Group and the 35th Transportation Corps Service Group, summed up their service: “…manning over a hundred different vessels of every size, shape and description, we have suffered more than 17 men killed and 20 wounded. . . . As of June 6, 1945, we have received 1 DSC, 4 Silver Stars, 1 Legion of Merit, and 21 Purple Hearts.”(77)

Notes

2. Memorandum, Maj. E.M. Kirsten to chief ordnance officer, SWPA, 18 February 1943, RG 495, Entry 370, Box 2086, NARA, College Park, MD. (All NARA citations are from Archives II, College Park, MD).
3. RG 336, Entry 2, Box 229, NARA.
4. AGO unit history cards, 301st CATD, Force Structure and Unit History Branch, Office of the U.S. Army Center of Military History, Fort McNair, Washington, D.C. (Hereafter, AGO cards, unit). RG 407, Entry 427, TCGP-35-0.1, NARA.
5. “Strength Report, 301st C.A., as of Noon, May 9/42,” RG 495, Entry 380, Box 2105, NARA.
6. Capt. R.P. Shea, XO, Small Ships Supply Command, to CO, Base Section 4, Subj.: “Relief Gun Crews aboard Ships in Melbourne Harbor, May 16th, 1942,” RG 495, Entry 399, Box 2126, NARA.
7. Capt. R.P. Shea, HQ, USAFIA, to CO, Base Section 4, Subj.: “Gun Crews for K.P.M. Ships, ‘SIBIGO’ and ‘VAN DEN BOSCH’, 20th May, 1942,” RG 495, Entry 380, Box 2105, NARA.

8. Memorandum, Small Ships Supply Command, Subj.: “Arming of Light Water Transports, May 26, 1942,” RG 495, Entry 380, Box 2105, NARA.


10. Memorandum, Col. T.G. Plant to Col. T.B. Wilson, 4 July 1942, RG 495, Entry 404, Box 2133, NARA.

11. Memorandum, C.T.S. G-4, 24 August, 1942, RG 495, Entry 404, Box 2134, NARA.


13. Lt. Hal R. Harmon, armament officer, to water transportation officer, “History of Gun Crew Engagements with the Enemy, 5 Apr. 1944,” RG 495, Entry 370, Box 2084, NARA. AGO cards, 62nd and 64th CATD.


16. Lt. Col. Christian G. Nelson to chief of Transportation Service, APO 501, Subj.: “Inspection Trip 21 September to 3 October,” RG 495, Entry 404, Box 2134, NARA.

17. RG 407, Entry 360A, Decimal File 573.9, Box 892, NARA.

18. “The History and Function of the S&GCC #1.”

19. Ibid. AGO cards, 302nd & 303rd CATD.


22. Ibid., p. 616. These figures are less than clear. While Masterson apparently considered the total to be the combination of those assigned and those on detached duty, it appears to this author more probable that the number of assigned personnel included those on detached duty. The actual records are silent on this subject. In addition, there were often a few officers and EMs listed as “attached,” but not enough to significantly affect the total strength.

23. RG 407, Entry 427, TCGP-35-0.1. “History of Gun Crew Engagements with the Enemy, 5 Apr. 1944.” It should be noted that casualty figures from different U.S. Army sources, like as the spellings of ships names and locations, do not always agree.

24. http://en.wikipedia.org/wiki/MS_Bantam_(1939). This ship was the center of considerable confusion. First, the S&GCC No.1 log spelled her name Bantum. Even more confusing, there were two Dutch ships named Bantam operating in the Southwest Pacific Area, both operated by the U.S. Army. This one, the smaller of the two, was sunk by Val dive bombers, then raised and towed to Sydney, where she was scuttled offshore after the war, loaded with chemical warfare material.


26. Maj. D.T. Wright, executive officer, USASOS, Office of the Transportation Officer, to CO, S&GCC No. 1, Subj.: “Armed Guards on Transports, 27 September 1943,” RG 495, Entry 370, Box 2086, NARA.

27. RG 407, Entry 427, TCGP-35-0.1, NARA.
28. Ibid.
29. Ibid. Email from Michael Yarborough, Force Structure and Unit History Branch, CMH.
30. RG 407, Entry 427, 98-BS1-35-0.2, NARA.
31. RG 407, Entry 427, 35 TCGP Medical, Box 18931, NARA.
32. RG 407, Entry 427, TCGP-35-0.1, NARA.
33. Col. B.M. Fitch, AG, to CG, USAFIA, Subj.: “Enlist (sic) of Filipinos in Philippine Army, May 19, 1942,” RG 495, Entry 380, Box 2105, NARA.
34. Col. Thomas B. Wilson, chief of Transportation Service, to Maj. G.P. Bradford, Small Ships Section, Subj.: “Navigational and Engineer Officers, 10 August, 1942,” RG 495, Entry 380, Box 2105, NARA.
35. AGO cards, HQ and HQ and Service Company, 35th Transportation Corps Composite Group, CATD 355-367.
36. RG 407, Entry 427, TCGP-35-0.1, NARA.
38. HQ, U.S. Army Forces in the Far East, “Station List of Troops in Southwest Pacific Area,” 8 September 1944, NARA.
39. RG 407, Entry 427, TCGP-35-0.1, NARA.
40. Army correspondence frequently used APO numbers in lieu of locations. This was complicated by the fact that APOs frequently changed locations. For example, APO 501 was assigned to HQ, Services of Supply, and HQ, U.S. Army Forces in the Far East. As the war moved away from Australia toward Japan, the location of those headquarters, and of APO 501, changed from Melbourne to Sydney, to Brisbane, to Hollandia, to Leyte, to Tacloban, and finally to Manila.
41. AGO cards say May 9 for the CATD and May 19 for the group.
42. RG 407, Entry 427, TCGP-35-0.1, NARA.
43. AGO unit history cards, 301st-303rd CATD and 355th-367th CATD.
44. Strengths given are for the last day of the month. Figures are from “Record of Events, Ship and Gun Crew Command No. 1 and 35th Transportation Corps Composite Group” (and 35th T.C. Service Group) except those indicated by *, which are from Masterson, p. 616. See endnote #22 for a caveat.
46. “Inventory of Ship Armament Material, as of 10 July 1944,” RG 495, Entry 370, Box 2084, NARA.
47. Memorandum, Maj. E.M. Kirsten to chief ordnance officer, SWPA, 18 February 1943.
48. “Inventory of Ship Armament Material, as of 10 July 1944.”
49. 2nd Lt. Hal R. Harmon to chief of ordnance, USASOS, Subj.: “Observed Advantages of Air-Cooled over Water-Cooled Cal. .50 Machine Guns, 23 January 1943,” RG 495, Entry 370, Box 2086, NARA.
51. “Inventory of Ship Armament Material, as of 10 July 1944.”
52. 2nd Lt. Hal R. Harmon, to transportation officer, USASOS, “Current Projects of the Ordnance Department for the Improvement of Ship Armament, 20 February 1943,” RG 495, Entry 370, Box 2086; Memorandum, Maj. Elwyn M. Kirsten to chief ordnance officer, SWPA, 18 February 1943; Memorandum, Maj. Elwyn N. Kirsten to Major Bradford, Small Ships Section, 3 July 1942, RG 495, Entry 404, Box 2134, NARA. For more information on army field guns on shipboard, see Bolling W. Smith, “Coast Artillery Transport Detachments, Pt. 1,” Coast Defense Journal, Vol. 28, No. 3 (Aug. 2014), pp. 4-57.
53. “The History and Function of the S&GCC #1.”


56. Capt. Hal R. Harmon to operations officer and water officer, “Report from Armament Officer, 18 April 1944,” RG 495, Entry 370, Box 2084, NARA.

57. 1st Lt. Hervey Lavoie, gunnery officer, to CG, USASOS, “Armament of Y-6, 10 April 1945,” RG 495, Entry 374, Box 2095, NARA.

58. 1st Lt. Hal R. Harmon, armament officer, to ship’s officers and arming agencies concerned, “Instructions for Use of P.A.C. Projectors (Parachute and Cable) for Defense against Low Flying Attack Aircraft,” RG 495, Entry 374, Box 2094, NARA. Based on a pamphlet issued by the British Admiralty.

59. “Use of Rocket Weapons with Ship Armament.” “Inventory of Ship Armament Material, as of 10 July 1944.”

60. "Use of Rocket Weapons with Ship Armament, 5 February 1943." "Inventory of Ship Armament Material, as of 10 July 1944." Norman Friedman, *Naval Anti-Aircraft Guns & Gunnery*, p. 221.


63. Memorandum, Maj. E.M. Kirsten to chief ordnance officer, SWPA, 18 February 1943. Correspondence, RG 495, Entry 370, Box 2084, NARA.

64. HQ, USASOS, Transportation Corps, Engineering Division, “Specifications ‘X’ – Vessels, 15 September 1944,” RG 495, Entry 405, Box 2136, NARA.


66. “Armament of Y-6, 10 April 1945.”

67. “Ship Armament Record, X-6, Anhui,” no date, RG 495, Entry 371, Box 2091, NARA.

68. HQ, USASOS, to section and base commanders, Subj.: “Transport armament, 23 May 1944,” RG 495, Entry 374, Box 2094, NARA.

69. “History of the Armament Section, July to December, 1943,” RG 495, Entry 370, Box 2084, NARA.

70. Lt. Harmon to Maj. Wright, “Gunners Required for Ships Armament, 28 April 43,” RG 495, 370, Box 2086, NARA.

71. HQ, USASOS, to CO, Ship and Gun Crew Command No. 1, APO 923, Subj.: “Assignment of Gunners to 113’ and 120’ Ocean Lighters and 112’ Fast Supply Boats, 6 February 1944,” RG 495, Entry 370, Box 2086, with indorsements, NARA.

“Assignment of Gunners to 113’ and 120’ Ocean Lighters and 112’ Fast Supply Boats, 6 February 1944.” Ocean lighters resembled North Sea trawlers; at 10 knots, they were “not much more than a self-propelled barge.” An entertaining and informative account of service on one of these lighters can be found at http://littleships.org/wp-content/uploads/2011/05/OCEAN-LIGHTER.pdf. It makes little reference to army gunners, who were taken aboard only when the vessel was “destined for an unsecured area.”

Lieutenant Harmon to Colonel Lancaster, “Gunner’s Quarters – s.s. ‘Karsik,’ 11 November 1943,” RG 495, Entry 370, Box 2086, NARA.

Memorandum, Capt. E.R. King, TC, to CO, 35th TC Composite Group, 13 July 1944, RG 495, Entry 370, Box 2086, NARA.

HQ, 35th T.C. Composite Group, “Status Report of Crews as of 31 July 1944,” RG 495, Entry 370, Box 2086, NARA.

RG 407, Entry 427, TCGP-35-0.1, NARA.
The CAC’s 3rd Lieutenants

Charles H. Bogart

The vast expansion of the Coast Artillery Corps (CAC) during World War I resulted in a multitude of changes, large and small. One of the most unusual yet least known was the creation of Coast Artillery Corps “3rd lieutenants.” How this came about is one of the sub-stories of the American Expeditionary Force (AEF). The only account we have of this is in a short article on page 103 in the March 15, 1919, issue of Liaison: The Courier of the Big Gun Corps, the weekly CAC magazine.

As the Coast Artillery Corps expanded tenfold during 1917 and 1918 there was a pressing need for officers. One means to obtain the additional officers needed by regiments then serving in France was to commission CAC enlisted men. During 1917, the draft and voluntary enlistments had brought into the CAC a number of enlisted men who had been studying for a college degree or had graduated from college. These AEF enlisted men, upon being chosen for commissions as officers in the CAC, were sent to the artillery school at Saumur. Upon successful completion of the school’s eight-week course, the enlisted men were commissioned as 2nd lieutenants in the CAC.

On November 11, 1918, the Armistice was signed, bringing the war to a close. Subsequently, the War Department informed the enlisted men at Saumur studying to become officers that due to the Armistice, no more officers would be commissioned in the National Army CAC. However, the War Department instructed them to continue their course work, advising that if they successfully completed the course, upon their return to the United States they would be commissioned as CAC 2nd lieutenants in the Officers’ Reserve Corps.
Officer candidates in formation, Saumur, Dec. 17, 1918. All the photographs from Saumur were taken after the Armistice. Those officer candidates who successfully completed the course considered themselves “3rd lieutenants.” NARA Still Pictures, 111-SC-44689.


Topography instruction, Saumur, Nov. 17, 1918. NARA Still Pictures, 111-SC-41376.
Captain Bosworth explaining sights to officer candidates, Saumur, Nov. 17, 1918. 
*NARA Still Pictures, 111-SC-41371.*

Officer candidate in topography class, Saumur, Nov. 17, 1918. *NARA Still Pictures, 111-SC-41377.*
The number of officer candidates affected is not known, but a photograph taken December 17, 1918, appears to show over 200 men in formation. The men who successfully completed the artillery school course, per War Department order, were not commissioned as 2nd lieutenants. The army seemed not to know what to do with these individuals; they were clearly not officers, but it hardly seemed fair to treat them as enlisted men pending their discharge. Something of a compromise was arrived at. They were not assigned duties expected to be performed by enlisted men, such as labor or standing formations, and they were assigned officers’ quarters, but they were not assigned officers’ duties. As one of them commented, “We go and come at our pleasure (so long as our pleasure is within reason). We are simply guests of the army, living and travelling at our dear Uncle’s expense.” Clearly, he felt they had gotten the better part of the bargain.

The men thus wore OD uniforms with no rank insignia, and when they reached Fort Monroe on their return, they continued to enjoy the best of both worlds. Soldiers have always had an attraction for uniform decoration, and at the suggestion of one of their group, the CAC men decided to call themselves 3rd lieutenants. As a symbol of their rank they had sewn across each of their sleeves a diagonal black braid, with black bars on their “rain-in-the-face” (overseas or garrison?) caps. These “3rd lieutenants,” instead of being referred to as “shavetails” adopted the term “dovetails.”

The dovetails returned stateside in early March 1919 on USS Antigone. What happened to them after this is unknown. Since they were never commissioned by anyone other than themselves, it seems probable that they were discharged as enlisted men. Whether they ever received their commissions in the Officers’ Reserve Corps, or whether by that time they even wanted those commissions, remains a mystery.

USS Antigone (c. 1919) brought the “3rd lieutenants” home from France. US Navy photograph 73322.
A Doughboy Remembers the C.A.C.

Edited by Charles H. Bogart


In an April 1981, letter, Floyd expanded on his World War I coast artillery service:

I was a member of the 3rd Company, Coast Artillery, Washington National Guard, when the United States declared war against Germany on April 6, 1917. Upon the declaration of war, the 3rd Company was ordered to active duty and sent to Fort Worden, part of the Coast Defenses of Puget Sound. In September 1917, I was transferred to the 4th Company, Coast Artillery, which at this time was living in tents on the hilltop at Ft. Worden. In December 1917, when the 63rd Artillery, C.A.C., was organized, I was assigned to its Battery F, stationed at Fort Flagler. Here I was promoted to private 1st class and 2nd class gunner. Upon making 2nd class gunner, I was assigned to Battery Ash, the 12-inch barbette gun battery at Ft. Worden.

After serving for some time at Battery Ash, I was selected with a number of other National Guardsmen to go to the Coast Artillery Officers School at Ft. Monroe, VA. In due course, I graduated from that school as a 2nd lieutenant, C.A.C., and in April I was sent by ship to England and then on to France as an unassigned C.A.C. replacement officer. Once in France, I was sent to the 54th Artillery, C.A.C., which had arrived in France in March 1918, and at the time I joined was firing its railroad guns near Chalons sur Marne. After the 54th lost its guns during a major German counteroffensive, the regiment became a depot replacement regiment.
At this time, a number of other lieutenants and I were detached from the 54th and sent to the city of Angers as student officers to take various courses at the French artillery school. Here I received training on the British Vickers Mark VI 8-inch howitzer. This 8-inch howitzer weighed 10 tons and fired a 200-pound shell out to a range of 10,500 yards.

In August 1918, upon graduation from the French artillery school, I was sent to my old regiment, the 63rd Artillery, C.A.C., which had arrived in France in July 1918. I spent the rest of the war as a 2nd lieutenant with the 63rd Artillery and returned stateside with it in February 1919. We were demobilized at Camp Lewis, WA. The 63rd was a good outfit, well officered, with a very high efficiency rating. The regiment achieved a degree of cooperation and effective comradeship which I have never seen equaled in any other outfit during either WWI or WWII. After the Armistice, the 63rd, due to its combat efficiency, was presented, with a French flag by the French Army.

A comment on firing the 8-inch howitzer: Firing the 8-inch howitzers during combat in France was less trying for the men then firing the big guns or mortars in the Puget Sound Coast Defenses. The firing of the Puget Sound guns did not produce a lot of noise in comparison to the 8-inch howitzer; instead, when the coast defense guns at Worden were fired, they delivered a simultaneous blow or concussion that hit all parts of a person’s body. I do not ever recall hearing the sound of these guns being fired; all I can recall is experiencing a blow to my total body immediately after hearing the command “FIRE.” With the 8-inch howitzers, it was all noise and no blow to the body.\(^4\)

A comment on our quarters in France: While in the lines, one slept where one could, with a nearby slit trench to duck into. Once behind the lines, one was quartered in all kinds of facilities, from houses still in use by their owners to abandoned buildings of all types, and at times underground shelters. The local town major where we would bivouac would paint on all of the buildings and shelters within his area a number that told how many officers, men, or horses might be quartered there. It seemed, however, that wherever you went you were sure to find lots of cooties for company.

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**Endnote**

1. The 3rd Co., C.A.C., WNG, was based in Everett, WA.
2. The 3rd Co. was incorporated into the 4th Co., and the 3rd Co. ceased to exist.
3. The 3rd Co. had been assigned to Battery Ash since 1912.
4. The maximum powder charge for the Mk VI 8-inch howitzer was 10.75 lbs, for the M1890 12-inch mortar, 47 lbs, and for the M1888 12-inch gun, 790 lbs. Ed.
A Letter to a Former Chief of Coast Artillery

NARA, College Park, MD, RG 165, Entry 257, D.F. 660.2 (Box 84)

Joseph A. Green was born in Iowa in 1881 and attended West Point. In 1906 he was commissioned in the Artillery Corps, and a year later in the Coast Artillery Corps. He served in France with the AEF during World War I and afterwards with the War Department General Staff. He attended the General Staff College, the Command and General Staff School, and the Army War College before commanding the 61st Coast Artillery Regiment in 1931.

In 1937, he was assigned as executive officer in the Office of the Chief of Coast Artillery until April 1, 1940, when he was promoted to major general and chief of coast artillery. On March 9, 1942, when the position of chief of coast artillery was abolished, Green was assigned to head the Antiaircraft Command, headquartered in Richmond, VA. He retired in 1946 and died October 27, 1963.

Col. Le Roy A. Whittaker was born in Rhode Island in 1888 and received a B.S. in Electrical Engineering from Rhode Island State College in 1915. He enlisted in the coast artillery on June 13, 1916, and was promoted to PFC and corporal. With the coming of World War I, he was commissioned, and after the war he served in the coast artillery and was assigned to the Office of the Chief of Coast Artillery, under General Green. With the abolition of that office, on October 1, 1942, he became head of the Seacoast Defense Projects Branch.

Although General Green was no longer responsible for seacoast defense, he retained a strong interest in the subject. On November 4, 1943, Colonel Whittaker wrote a personal letter to General Green, advising him on the status of the Seacoast Modernization Program.

Maj. Gen. Joseph A. Green, April 1940, on his promotion to chief of coast artillery.

*Library of Congress LC-H22-D-8743*
4 November 1943

Major General J. A. Green,
The Mosque,
Richmond, Virginia.

My dear General:

As per our telephonic conversation of 2 November 1943, I am enclosing Tabs which will reflect the progress of the Seacoast Modernization Program as of 30 September 1943. These tabulations have been corrected to show all changes in the project for the 6-inch and 16-inch batteries.

The major changes in Continental United States have been the elimination of the projected harbor defenses at Cape Flattery (2 - 6" and 2 - 16" batteries). All work has been stopped on this project and the manufacture of the pertinent armament has been cancelled. The 16-inch program has in addition suffered to the following extent: Six batteries, one each in Boston, Narragansett Bay, Long Island, San Francisco, Los Angeles and San Diego, have been deferred. All of the above places will have at least one completed 16-inch battery and except for San Diego and Los Angeles, the heavy gun protection seems to be ample for the present category of defense. The loss of Batteries 128 in Los Angeles on the south flank and 134 in San Diego also on the south flank will probably hurt us the most, if occasion should arise for their use, in view of the weak defense of these areas to start with. The armament for these six batteries will, however, be manufactured and we are going to recommend to the General Staff that the armament be mounted for Class C maintenance as the storage problem for the large amount of material involved would otherwise be most difficult and expensive. If this latter proposal is approved, then the six batteries in general will be completed except for power plants and shields.

The original overseas program included five 6-inch batteries for Trinidad and nine 6-inch batteries for Roosevelt Roads. The Trinidad batteries and all but three of the Roosevelt Roads batteries have been eliminated from the project and the manufacture of the pertinent armament has also been cancelled. Likewise the four 16-inch batteries projected for Roosevelt Roads and the two 12-inch batteries for Trinidad have met the same fate.
As you perhaps can imagine, the seacoast program has been under constant fire, since it is of a defensive category. We have had intimations that various procurement review agencies have been interested in curtailing the major caliber portions of the program. This interest has ranged from suggested cutbacks to the elimination of the entire program. We have been fortunate to save as much as we have in the circumstances.

The replacement of buoyant mines by ground mines is progressing very favorably, and in general, I can say that the program is at least 60 to 70% completed. The shore facilities, such as casemates, wharves, and loading rooms are well under way in the various areas and this project should be entirely complete within the next two to three months. The floating equipment seems to be functioning fairly well but several important alterations have been approved for the new mine planters as they are dry-docked. These alterations will increase the efficiency of the vessels and the comfort of the crew but since they have already planted nearly 70% of the projects, it is self-evident that the planters, in general, have proved satisfactory.

The ground mine themselves have, of course, presented various difficulties but these have finally been overcome to a degree that insures a much more efficient underwater defense than that provided by the buoyant type.

The radar situation is rather spotty. The SCR-296 sets (fire control) have been distributed to most of the batteries and are being installed at a satisfactory rate. We do not have much in the way of data on the efficiency of their operation but from what little we do know, they are a great help to the harbor defenses particularly in view of the situation with the 882 sets. These radar sets, of which 55 were manufactured, have proven very satisfactory and as you may know were used in North Africa to detect low flying planes. Some 27 of these sets were diverted from harbor defense assignments and furnished to active theaters, (Australia, North Africa, and other areas). As a result of the diversion many harbor defenses have not been equipped with the general surveillance detector. The replacement set, SCR-682, is just now coming into production but the shortages in the harbor defenses will probably not be met until mid-summer of 1944.

The harbor entrance control post situation appears to be pretty well in hand and they are apparently operating satisfactorily. Several permanent structures have been completed for these activities and in general this portion of the harbor defense activity is well provided for.
The AMTB problem has been difficult to solve and has proven an annoyance to all concerned. As you know, we started the war without a suitable AMTB weapon. The 37mm and 40mm antiaircraft gun was not satisfactory for all of our harbors in view of the large water areas to be covered and the 3-inch seacoast gun was deemed not suitable. The 90mm antiaircraft gun on a fixed mount was delayed in manufacture due to higher priorities although these weapons have now been completed and are in process of installation. I do not have any data as to the progress of this installation since it is being done by defense commanders and is not coordinated in this office. 90mm AA mobile guns with antiaircraft fire control were furnished to permit an interim defense and these have been entirely distributed for some time.

The fire control problem for the AMTB armament has not yet been solved although the T-15 director appears to be satisfactory. This has been tested but not with the radar component which is possibly the important link of the system. It is understood that the SCR-598 radar set will soon be available for testing at Fort Monroe. However, with the priority that can be secured for the manufacture of fire control equipment, even when it has become standardized, it would appear that none of these instruments will be available prior to 1945 or late 1944.

The M1 Gun Data Computers are well into production for major caliber batteries. Some sixteen of these are now in service. The MS Computer for the 6-inch and 8-inch batteries has just been cleared for production and will probably come out about June of 1944.

Many of the old batteries have been salvaged and removed for scrap metal and an improved situation as to appearance and storage in the various harbor defenses will result therefrom. On the whole, the harbor defense artillery will have made substantial gains and an increase in fire power will undoubtedly result even with the curtailed program. It is hoped that this brief resume of the status of the Modernization Program will give you some idea of the progress and the problems that have occurred since 8 March 1942.

In view of the informal and unofficial character of this memorandum, it is requested that no reference be made to it in official correspondence.

Sincerely yours,

L. A. Whittaker,
Colonel, C. A. C.

2 Incls: Tabs A & B
<table>
<thead>
<tr>
<th>Construction No.</th>
<th>Harbor Defense</th>
<th>Capable of Firing</th>
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<tr>
<td>108</td>
<td>Narragansett Bay</td>
<td>Yes</td>
</tr>
<tr>
<td>120</td>
<td>Chesapeake Bay</td>
<td>Yes</td>
</tr>
<tr>
<td>118</td>
<td>Delaware</td>
<td>Yes</td>
</tr>
<tr>
<td>122</td>
<td>Chesapeake Bay</td>
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**NEW 12" BATTERIES**

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### NEW 8" BATTERIES, CONT. U.S.

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HEADQUARTERS ANTI AIRCRAFT COMMAND
RICHMOND, VIRGINIA

Office of the Commanding General

8 November 1943

Colonel I. A. Whittaker, CAC
Office of the Commanding General
Army Service Forces
Washington, D. C.

My dear Whittaker:

Please accept my very sincere thanks for the information contained in, and the trouble you went to, to prepare for me your letter of the fourth instant. It contains a most complete picture of the present status of the harbor defense modernization program. I was sorry to see that certain batteries had been deferred and others eliminated entirely, but all in all the program shared a better fate than I had feared for I had plenty of trouble in selling the idea to the War Department in the first place and later to the Congressional Appropriations Committee. That was at a time too when there was a possibility and many thought even a probability that our shores might be attacked. Personally, I feel that you and the War Department, who have been looking after this project, have done a swell job. There is no doubt in my mind that the action taken for modernizing the defenses will justify itself many times over in the years to come -- for it provides adequate insurance against an attack on this nation at a time when it may not be as well prepared to defend itself as it is today.

You can be sure that I will under no circumstances use officially any of the information you furnished me. However, it is helpful to me to have a general picture of the project as it is today for I am at heart, and know I always will be, a strong advocate of adequate defenses for our harbors. Moreover, I shall never miss an opportunity to preach that doctrine when the opportunity offers.

Again my sincere thanks and best wishes to you.

J. A. GREEN,
Major General, U. S. Army,
Commanding.
Book Review

A History of Florida Forts: Florida’s Lonely Outposts
By Alejandro M. de Quesada

ISBN 9781596291041, $24.99

The larger of the two books by de Quesada, it is generally limited to forts, the number of which in a state largely unoccupied until the 20th century is remarkable. The four chapters are chronological: The Colonial Era, The Territorial Era and the Seminole Wars, The Civil War, and The Modern Era. Within each chapter, forts are presented in alphabetical order. Regrettably, there is no index.

Major seacoast fortifications abounded in Florida – Fort Clinch, Castillo de San Marcos, Matanzas, Forts Taylor, Jefferson, Dade, DeSoto, Pickens, McRee, and Barrancas, in addition to Confederate earthworks and the unique Spanish-American War battery at St. Johns Bluff. The major works may be familiar to more serious readers, but many of the host of smaller works, to include the forts built during the Seminole Wars, may not be. One could easily spend weeks touring the sites across Florida, although that would require rearranging the locations into some sort of geographic sequence.

Many of the numerous B&W photographs, both historic and current, are not sharply reproduced, which is especially regrettable for the historic views. The narratives are relatively limited, as is natural with such a broad scope. For the more discerning reader, especially those with an interest in seacoast fortifications, the narratives do not display a real knowledge of the subject, and many minor errors appear. To be considered a work of history, this book would need more careful review. The articles on Florida defenses by William Gaines and others that have appeared in this journal are not listed in the bibliography; they would have helped the author avoid references to Panama mounts as “partially buried concrete obstacles on the beach,” or assertions that the magazine for Battery Langdon at Fort Pickens was bombproofed during World War II and that the battery had 17 feet of concrete overhead.

On the other hand, as a tour guide, this is a fascinating volume, sure to lead the reader to new locations. A winter month could be pleasantly spent visiting all the sites, both large and small. For such a purpose, this book is highly recommended.

Bolling Smith
Book Review

A History of Georgia Forts:
Georgia’s Lonely Outposts
By Alejandro M. de Quesada


This volume is somewhat imprecisely named, since it contains not only forts, but camps, airfields, and other military sites, to include POW camps. In comparison to the author’s previous volume on Florida forts, the quality of the photographic reproduction is substantially improved. The addition of an index is also appreciated.

The book is similarly divided into colonial, antebellum, Civil War, and modern eras. In addition to the relatively small earthwork seacoast forts of the colonial era, the seacoast fortifications cluster around the defenses of Savannah, from the Revolutionary War to the Civil War and later the Endicott era. Once again, the author failed to consult the articles in this journal, most notably those by William Gaines, and so was apparently unaware of the World War II defenses at Tybee Island or the temporary 4.72-inch Endicott-era battery on Wassaw Island.

Although the Civil War earthworks around Atlanta and elsewhere are covered, the bulk of the book concerns locations other than fortifications, and the primary value of the volume is here. Sites such as the famous World War II airborne training facility at Camp Toccoa, and Forts McPherson, Oglethorpe, Benning, and Gordon are joined by a number of airfields and naval installations. Once again, this is an excellent, fascinating tour guide to those going to or passing through Georgia, but for details on the seacoast fortifications, the reader would be advised to consult the articles by Gaines and Robert Zink.

Bolling Smith
Book Review

*Blazing Skies: From Ajax to Zeus*

By CWA Jack K. Emry (ret.)


Used copies available Amazon.com.

This unusual, if not unique, book is one man’s reminiscences of his military service, largely served with the Nike missile systems. It should not be confused with the book of a similar title written by John Hamilton and published by GPO. Jack Emry was drafted into the Marine Corps during World War II, and after serving as a PFC, he returned to civilian life in 1945. Six years later he rejoined the military as a master sergeant in the U.S. Army. He received training on guided missiles at Fort Sill, OK, and eventually Fort Bliss, TX. This book basically traces his military career until his retirement in 1970 or 1971. (The book provides few dates.)

Becoming a warrant officer, he served as a technical expert on the Nike systems, and, by his account, at least, one of the finest in the army. His principle duty stations were at Fort Bliss; around Seattle, WA; and in Germany. Emry is by no means a writer, and this book clearly did not have an editor. Errors of grammar and punctuation abound. For example, the capital of West Germany (Bonn) was repeatedly spelled “Bahn.”

On the other hand, he is a good story teller, and his account is fast paced and enjoyable. Possessed of a quick temper, he had more than his share of collisions with superior officers, but by his account, he was largely successful, due to the respect he had earned from higher-ranking brass.

The stories are mainly personal, the sort a man would leave for his children, but they do offer insight into the Nike systems which he helped pioneer. For those interested in a pleasant account of life with Nike, this book is a strong candidate. Fourteen pages of photographs on glossy paper illustrate the book.

Bolling Smith
Book Review

Axis Midget Submarines 1939-45
By Jamie Prenatt and Mark Stille


Although the authors do not precisely define “midget submarines,” the concept is relatively clear in the context of World War II. They were submarines, or at least semisubmersibles, with limited size, crew, and range, intended for short-range, single operations. Together, Italy, Germany, and Japan produced approximately 2000 of these craft, and all used them operationally. They had some successes, but in general they failed to justify the effort and expense.

The best known were the Italian SLCs that sank two British battleships in Alexandria Harbor, Egypt, and the Japanese craft that tried unsuccessfully to attack the US Fleet at Pearl Harbor as a precursor to the much more successful air attack. The Japanese attack on Diego Suarez Harbor in Madagascar is less well known, despite inflicting damaging on the battleship HMS Ramillies that kept her out of the war for a year.

Midget submarines faced numerous obstacles, from hasty designs to poorly trained crews, but by 1945, both the Germans and the Japanese had developed effective weapons. The German Seehunds sank some 120,000 tons of Allied shipping, and by the end of the war, the threat of such small submarines, able to escape detection, caused much concern among harbor defense planners, who had relied on submarine nets, mines, and sensors to protect American harbors from submarines. While there was little left to fear from surface craft, midget submarines could be employed by nations that could not directly confront the US Navy and coast artillery, and much effort and expense was expended improving sensors to detect such craft. One can only imagine that the Department of Homeland Security continues these concerns today.

In the Pacific, the Japanese had intended to use their midget submarines in the great climactic naval battle they envisioned, but in the end, they were largely deployed as defensive weapons. If Japan had produced sufficient numbers of their advanced Type D craft and used them wisely with trained crews, they could well have had a major impact on the planned invasion of Japan.

This small book lists the different types of boats used by each country, both experimental and operational, and describes their successes and failures. As is expected with an Osprey book, it is lavishly illustrated. The story of these weapons compels respect for the courage of the men who manned them; although not technically “suicide craft,” the loss rate made the distinction hazy, and indeed Japan was preparing some boats with explosives for ramming. This is a very interesting book, highly relevant to post-war harbor defense, and highly recommended.

Bolling Smith
Book Review

Essex at War
By Michael Foley


Essex is an English county, east of London and north of the River Thames. It is largely agricultural, but has bedroom communities for London. The county is no stranger to violence, from Roman battles to Viking incursions to the English Civil War. Even when spared actual combat, Essex’s nearness to Europe meant frequent threats of invasion, especially during the Napoleonic Wars and the world wars of the 20th century.

Many of the county’s wealth of military sites are documented in this book, which is a combination of gazetteer and history. The book is divided into four chapters: Seventeenth and Eighteenth Centuries, Napoleonic Period until the Nineteenth Century, The First World War, and The Second World War. Within each chapter, individual locations are listed, along with brief summaries of the events associated with those locations. These are supported by numerous B&W drawings and photographs. While the entries are not footnoted, there is a good bibliography at the end of the book.

For those interested in coastal defense, Essex has a number of important locations. Tilbury Fort, largely constructed beginning in 1670, is today an impressive preserved site on the Thames, but for whatever reason, the history of the construction of this fort is largely missing from this book. The second major fortification is Harwich Redoubt, the largest ancient monument in the UK being restored by a voluntary group. Built during the Napoleonic Wars, it was repeatedly modernized and presents a charming appearance today. Regrettably, Landguard Fort, built and modernized over two centuries across the River Orwell in Suffolk, is just outside the scope of this book, even though it guarded Harwich in Essex, along with other batteries/forts, which also seem to have escaped notice. Coalhouse Fort on the Thames at East Tilbury is mentioned briefly. More notice is taken of the numerous Martello towers which dotted the Essex coast. Other defenses such as pillboxes and 20th-century coast defenses receive some attention.

In addition to the fortifications, a multitude of other sites, from barracks to American airfields, dot the Essex landscape and are covered in this book. The author concentrates on the people rather than the structures, which may please some while disappointing others, and the book contains many interesting anecdotes.

For those primarily interested in coast defenses, this book may not be everything hoped for, but for those interested in a broader view of history, it is an engaging, interesting book, with a wealth of stories. The most serious shortcoming is the lack of maps, which would surely benefit those unfamiliar with the geography. On the other hand, this book is highly recommended for anyone living near or intending to visit Essex.

Bolling Smith
Book Review

Martello Towers
By Michael Foley


Michael Foley is a historian who has concentrated on “local” history, especially the county of Essex, east of London. This book, while not limited to Essex, continues that pattern. Most of our readers will be familiar with Martello towers, built in large numbers around Britain and Ireland, and in lesser numbers in other countries, to include Canada and the United States. For well-known structures, many of which still survive, there is remarkable uncertainty about them. For example, the origin of the name, more than the concept, is in dispute, and exactly what qualifies as a Martello tower is not at all clear. Consequently, numbers are only as good as the underlying assumptions. Foley, it should be noted, carefully addresses these issues.

While numbers are merely advisory, almost 75 towers were built along the south coast, in East Sussex and Kent, while another nearly 30 towers were built to the east, in Essex and Suffolk. A few more were built elsewhere around Britain, such as in Wales and Scotland, and about 50 were built in Ireland. Whether some of the towers built in the Channel Islands are properly Martello towers is disputed, as are some of those in Canada. In the United States, the two towers at Key West do not fit any definition of Martello towers, but the U.S. Army so named them nonetheless.

Foley’s book is essentially divided into two parts. The first 35 pages constitute a general history of the origins and development of the towers. It is an excellent summary and deals with not only the strategic concepts behind the tower system, but also the long-running dispute as to whether they were a good use of public monies. It should be mentioned that Foley does not elaborate on details of design, but concentrates on the operational history of the towers.

The second portion, which constitutes the bulk of the book, provides a guide to the towers in the four counties listed, Sussex, Kent, Essex, and Suffolk. Whenever possible, these entries are illustrated with photographs; in the case of surviving towers, in color. These entries do not always include information on the construction of the towers, but do recount interesting events during their life, up to and including their use in the Second World War. The most surprising feature of the book may be the role the towers played in the long-running battle against smugglers. This was more intense, and bloody, than the strictly military role. In addition to strictly Martello towers, the book also covers other military structures constructed to support the towers, as part of an overall system.

The book is no doubt primarily intended for a local audience, and for those visiting the southeast and east coast of England, but its introductory chapters and numerous illustrations make it of value to anyone interested in fortification of the first half of the 19th century.

Of course, a book of this size cannot be all things to all people. Those wishing more details on the design and construction of the towers may wish to consult Martello Towers, by Sheila Sutcliffe, while those wishing more extensive coverage of towers in Ireland are referred to Billy Pitt Had Them Built: Napoleonic Towers in Ireland, by Bill Clements, reviewed in the February 2014 issue of this journal.

Nonetheless, this is an interesting, informative, and useful book, particularly recommended to those living in or visiting the southeast and east of England, who will find it highly valuable.

Bolling Smith
Book Review

Organization Todt
From Autobahns to the Atlantic Wall
Edited by John Christopher


Anyone interested in World War Two German defenses will be familiar with Organization Todt (OT). First created for civil works projects such as the autobahns, it evolved into the primary German military engineering contractor, building the Atlantic Wall, the Westwall, civilian bomb shelters, and launching sites for V-1 and V-2 missiles, as well as repairing bombed cities. As such, it became a massive paramilitary organization, with almost 2 million workers, as it increasingly relied on “impressed” (slave) labor, such as POWs, eastern Europeans, and other elements less favored by the Nazis. As the war progressed, working conditions became increasingly harsh, and vast numbers of impressed workers did not survive the war.

This book is essentially a reprinting of MIRS/MR-OT/5/45, the British March 1945 Handbook of Organization Todt (OT), produced by the Military Intelligence Research Section, which is now declassified. The original document was quite thick, and portions omitted from the reprinting include annexes giving names and addresses of known OT personnel and OT-firms, as well as a long list of abbreviations. Some tables which did not reproduce clearly enough were also omitted. The original contained only a few photographs of uniforms and insignia; numerous photographs, both B&W and color, have been added. These are well reproduced and increase the value of the text considerably.

The text is divided into four parts: History of the OT; Organization, Administration and Operation; Personnel; and Manpower. With all wartime intelligence appraisals, readers must always keep in mind the difficulty of obtaining accurate information from behind enemy lines, and this report cannot be substituted for post-war histories based on newer and better access. However, this book was intended to assist in the final conquest of Germany, not to serve as a propaganda document, and by early 1945, the Allies had overrun almost all the countries once occupied by Germany, and sources of information were plentiful, at least for Western Europe.

Those interested in the details of the construction of German defenses will find much information not available elsewhere. For anyone concerned with World War Two defenses, it is highly recommended.

Bolling Smith
**Book Review**

*Fort Adams: A History*

By John T. Duchesneau and Kathleen Troost-Cramer


Newport, RI, is the only deepwater port between Boston and New York. As such, it is a key strategic location for the defense of the entire New England coast. Fort Adams, the massive third-system stone fort that guards the entrance to Newport’s harbor, has been described as the most complex fortification in the Western Hemisphere.

Fort Adams is intimately associated with the two primary figures of the third system. Brig. Gen. Baron Simon Bernard designed the fort; his plan was modified and the fort was constructed by Maj. Joseph Totten.

Fort Adams secured Newport from naval attack until the end of the 19th century, when progress in ironclad warships and rifled guns made the stone fort obsolete. In the Endicott era, a battery of 10-inch disappearing guns and rapid-fire 6, 4.72, and 3-inch batteries were constructed, in addition to two batteries of 12-inch breechloading mortars. At the same time, however, other, more powerful, forts were constructed to defend Narragansett Bay and the tactical importance of Fort Adams began to diminish. By the First World War, Fort Adams had become increasingly irrelevant, as defenses were built farther and farther away from the city of Newport. After World War II, the fort was transferred to the state of Rhode Island, which has tried, with varying success, to operate and maintain it as a historic site and tourist attraction.

This book is a work of devotion by two local authors who have long been associated with the fort. It is focused at the general reader, rather than the fortification expert, concentrating on the role the fort played and the people who served at the fort, to include the many important military figures stationed there. The stories bring the history of the fort to life and help the reader to understand the experiences of officers and enlisted men alike, as well as their wives and families.

Fort Adams, due to circumstances and its own strength, was never involved in battle, but as this book clearly demonstrates, it has a fascinating history all its own. This book is recommended to any reader interested in America’s greatest fort, and those who defended it.

Bolling Smith
CDSG members are accustomed to thinking of Cape Henlopen, Delaware, in terms of Fort Miles. However, Lewes and Cape Henlopen had an extensive history with the U.S. Navy that began long before the establishment of Fort Miles and continued for decades after the guns of Fort Miles were silenced.

To even attempt to summarize the naval history of this area would be exhausting, but this book does an impressive job of detailing that history, in both its organizational and personal aspects. The author is a retired navy officer, a former deputy director of naval intelligence. His lifetime of experience in the navy, coupled with diligent research, had produced an excellent guide to the naval history of the region where he now makes his home.

Coast defense has always been recognized as a joint-service responsibility, but there has been too little discussion of the naval aspects. This book does much to correct that imbalance. By detailing the efforts of the U.S. Navy (and Coast Guard) in two world wars, it adds considerably to a broader picture of coast defense.

In addition, for those who have wondered about the post-war naval activities on the cape, much of which utilized Fort Miles’ old batteries, this book provides many answers. This book is largely focused on the navy. The primary mention of Fort Miles is in respect to the joint-service HECP, although here again, the emphasis is on the navy's contribution. But Manthorpe clearly demonstrates that a book does not have to be about the army to cover coast defense.

The only complaint is the quality of the B&W illustrations. This book deserves better. Other than that, it is an interesting and informative book, which will broaden anyone's knowledge of coast defense. As such, it is highly recommended.

Bolling Smith
Book Review

Eisenbahnartillerie - Einsatzgeschichte der deutschen Eisenbahnartillerie im Westen 1940-1945
- Eine Dokumentation
By Wolfgang Gückelhorn and Detlev Paul


This impressive new book on WWII German railway artillery is wonderfully illustrated with B&W and color photos, maps, and drawings. The text is supplemented by tables containing valuable information, to include the technical details of all types of German rail artillery plus the details of captured French railway guns used by the Germans. One table even lists the known serial numbers of all German railway guns and captured French railway guns!

Chapters discuss ammunition, and standard railway gun firing positions and turntables. There are discussions of the role of German railway artillery in the 1940 invasion of Belgium and France, the invasion of Russia, and the sieges of Leningrad and Sevastopol. There are sections covering the planned role of railway guns in Operation Sea Lion (the invasion of Britain), the conquest of Gibraltar, and the invasion of Malta. (K12 very-long-range railway guns firing from the southern tip of Sicily against Malta!)

There is a huge section dealing with railway guns in the Atlantic Wall and the Sudwall (the German defenses of the French Mediterranean coast), detailing every railway artillery unit and the positions they occupied from France to Norway! Last but not least, the final days of the Reich and the operations of German rail guns in the closing days of the war are covered.

This is undoubtedly one of the best books ever published on German railway artillery and I strongly recommend it to anyone interested in this subject, especially CDSG members because of its extensive information on the use of railway guns on the Atlantic Wall and Sudwall.

Lee R. Unterborn
Retracted bascule “disappearing” searchlight, Fort McKinley. Bolling Smith Collection.

Bascule searchlight raised, Fort McKinley. Bolling Smith Collection.