

ARMS OF THE

ARMY

By Capt. Ambrosio P. Peña, FA

PART II. —



HE laying of electrically-detonated mines at the approaches of harbors intended to be denied to the enemy, is another important function of the coast artillery. During the last war the coast artillery had acquired another important function, that of placing "barage-balloon" defenses around important military installations and strategic places to supplement the active anti-aircraft defenses.

The tactical organization of a sea-coast gun battery, battalion or regiment follows generally that of the field artillery. What would be said later on of the field artillery applies also to the coast artillery. For the present then let us see how a standard anti-aircraft brigade is organized.

A brigade is armed with at least 72 heavy machine guns, 72 light anti-aircraft guns, (from 37-mm to 57-mm), 36 heavy anti-aircraft guns of 3-inch and 90-mm caliber and 45 searchlights. The searchlights, which generates light to a maximum of 800,000,000 candle-power per units, are organized into

"searchlight batteries" which in turn are organized into a battalion. The machine-guns are also organized into batteries to form a battalion which serves as auxiliary to the two gun regiments organized out of the light guns and the heavy guns. As proven in actual combat, the brigade is capable of protecting a corps or army area from hostile planes which may have eluded the friendly interceptors.

Generally, shells used by anti-aircraft guns are provided with a special fuse which would detonate the projectile when it hits the fabric of the airplane. Should it miss its marks the fuse automatically explodes the projectile. During the last war there was developed a 40-mm automatic anti-aircraft gun, known as *Bofors*. This is funnel-mouthed and is capable of firing from 120 to 140 rounds per minute. The 90-mm gun for high flying planes, had been proven the most powerful anti-aircraft gun during the last war.

Before the war the seacoast defense of the Philippines was a pri-

mary responsibility of the United States. Toward this end the United States Army established on Corregidor and its satellite islands of Caballo, Carabao and El Fraile permanent coast artillery installations named Fort Mills, Fort Hughes, Fort Frank, and Fort Drum, respectively. These forts secured the vital harbor of Manila and the United States Navy Station in Cavite City. Farther north, between northwestern Bataan and southern Zambales is Subic Bay. At the entrance of this bay is located Grande Island where another permanent coast artillery station, named Fort Wint, guarded the United States Navy Station in Olongapo, Zambales.

The regularly established units at these five forts were the 60th Coast Artillery, Anti-Aircraft (U.S. Regular Army), the 91st Coast Artillery (Philippine Scouts), the 92nd Tractor Drawn Coast Artillery (Philippine Scouts), and the 59th Coast Artillery (U.S. Regular Army).

Their armaments consisted of several 3-inch naval guns, 155-mm guns, 6, 10, and 12-inch guns, 10 and 12-inch disappearing guns, 8-



A barrage of artillery doing practice firing.



The laying of electrically detonated mines at the approaches of harbors is another important function of the coast artillery in the defense of strategic ports and harbors.

inch railroad guns, and 10 and 12-inch mortars. The 60th CAC regiment had light and heavy machine-guns, and 37-mm and 3-inch anti-aircraft guns.

The per unit cost of maintaining the Coast Artillery is much higher than any of the other arms. This is one reason why countries with vast material resources have the advantage and capability of organizing the most effective corps of coast artillery. The Philippines with a coastline that is more extensive than that of the United States, has a good use for a mighty coast artillery corps. But here again the limited resources of the country step in. Nonetheless, before the war the Philippine Army was able to maintain its Coast Artillery Corps and train sufficient men for this arm with the aid of the United States.

Late in 1936 there was conducted at Fort Mills, Corregidor a proficiency course in coast artillery for some Filipino officers. The United States Army loaned six 155-mm guns (GPF's) so that by January 1937, at the inauguration of its military training program, the Philippine Army had some key personnel and materiel with which to start its Coast Artillery Corps.

The original training site of the Philippine Army's Coast Artillery Corps was at Camp Dau (later designated as Camp Del Pilar), Pampanga. In January 1937, three gun batteries, each of two guns, and a headquarters and headquarters battery were organized. To these batteries were assigned the PA officers who had trained at Fort Mills,

and some 500 trainees who had been previously registered to train for the Coast Artillery. Overall supervision of the training program was a responsibility of the Camp Commander assisted by a group of American CAC officers from the U. S. Army and enlisted men of the Philippine Scouts who were on duty with MacArthur's Philippine Military Mission. These officers and enlisted men formed the Coast Artillery's "instructional staff," and were apportioned generally on the basis of one officer and ten enlisted men per battery. To Captain Arthur B. Nicholson, CAC, USA, the first American Senior Instructor for the Coast Artillery Corps at Camp Dau, goes the credit for having laid out the original Coast Artillery training program for the Philippine Army.

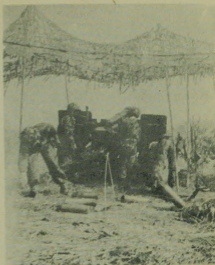
A year later there enlisted in the regular Coast Artillery complement of the Philippine Army, several trainee graduates. Also, there were commissioned from the School for Reserve Commission several CAC officers. This made possible the reduction of the number of American officers and enlisted men of the Philippine Scouts assigned to the instructional staff of the Coast Artillery cadre until shortly before the war when the number was reduced to the ratio of one officer per battalion and one enlisted man per battery.

After due negotiation, the Coast Artillery training cadre was transferred to Fort Wint in July 1938. At that time there was stationed in this fort a small detachment of the 92nd CAC (PS) which was charged

with the care and maintenance of the "big guns" and "mechanical brains." This detachment was given the additional job of assisting in the instruction of the trainees, especially along technical lines, which was most fortunate.

It should be borne in mind that the coastal guns in Fort Wint were on fixed emplacements and so were its plotting rooms — the so-called "mechanical brains." For sometime the Philippine Army officers and men had to be reoriented to the new type of armament and equipment. For this reorientation a United States Army's instructional staff, headed by Major William F. Marquat, (CAC) USA, who rose to the rank of Major General while serving in the Special Staff of Gen. MacArthur during the last war, was on detail with the Philippine Army's Coast Artillery complement. To 1st Lieutenant (now Lieutenant Colonel) Silvino de Goma goes the credit for having laid out the plan for the Philippine Army Training Camp (PATC) at Fort Wint, in his capacity as its first commanding officer.

The batteries at Fort Wint were linked with names of heroes who had served with the Coast Artillery corps. This fact is interesting since it is only the Coast Artillery which out of tradition, has perpetuated its heroes by identifying its basic tactical units with their names. Generally, batteries are designated by letters; but at Fort Wint, the Philippine Army troops became familiar to such designations as Battery Woodrow with its five 6-inch guns;



An artillery piece ready to shell out its deadly cargo of gun powder at the enemy.

Battery Warwick with its two 10-inch guns; and Battery Flak with its four 3-inch naval guns.

The Philippine Army's training program for the Coast Artillery was greatly accelerated at Fort Wint since there were better equipment and more spacious training area available. Beginning July 1938 and every six month thereafter, trainees were trained in the Coast Artillery and were formed into battalions. These reserve "paper" battalions were organized in each of the ten military districts as fast as there were Coast Artillery trainee graduates from these districts. Furthermore, in June 1941, the Coast Artillery training program was expanded with the organization of an anti-aircraft battery of four 3-inch guns. Heading the instructional



PN Captain Rafael Pargas

staff for this anti-aircraft unit was Major John McGullick, (CAC), USA.

With the declaration of emergency in July 1941, Filipino CAC reservists were called to duty. By the 31st of October, the Headquarters and the 1st Battalion of the 1st Coast Artillery Regiment, were activated at Port Area, Manila under the command of (now navy captain) Rafael Pargas, a Filipino graduate of the United States Naval Academy, Class of 1935. This 1st CAC was later transferred to Fort Wint where its 2nd Battalion was organized out of personnel stationed at said fort.

Shortly after the outbreak of the war, Fort Wint became untenable and it had to be abandoned after the destruction of all its guns and equipment. The Philippine Scouts Detachment returned to its mother unit while the Filipino garrison left on 26 December 1941 for Dinalupihan, thence for Bagac, Bataan.

On 12 December 1941, another Filipino Coast Artillery Regiment was activated at Port Area, designated as 2nd Coast Artillery Corps. Upon reaching Bataan, this unit became the 2nd CAC, (Anti-Aircraft). Because of its lack of equipment it was placed tactically with the 515th CAC (U.S.). Personnel of the 2nd CAC (PA) took turns by shifts in manning the guns of the 515th CAC.

Besides the two Philippine Army coast artillery regiments and the American and Philippine Scouts coast artillery regiments permanently stationed on Corregidor and its satellite islands, there arrived in the Philippines in October 1941 an American National Guard unit called the 200th CAC (AA). Later in Bataan this unit was split into two regiments: the 200th CAC (AA) and the 515th CAC. The Philippine Army's 2nd CAC was placed for tactical operations under the 515th CAC. Subsequently, about the middle of February, 1943, the 515th was further split into two regiments, each with skeleton strength. The new regiment formed was designated as 215th CAC (AA). To recapitulate the following Coast Artillery units were established either before the last war or during the Philippine defense campaign: 60th CAC (AA), USA; 91st CAC, PS; 92nd CAC, PS; 59th CAC, USA; 200th CAC (AA), USA; 215th CAC (AA), USA; 515th CAC (AA), USA; 1st CAC, PA; and 2nd CAC (AA), PA.

After Bataan the remaining battalion of the 1st CAC, PA fought it out with the enemy on the beaches and ravines with Corregidor, armed

with 37-mm, 75-mm and 155-mm guns. The 1st CAC had its share of the privations of Corregidor. It did just as much in averting the early capitulation of Corregidor as the American units that defended the island fortress. There has been no move so far to reconstitute this arm although a great number of its officers and men who could be placed in key positions, have survived the war.

The Corps of Engineers

The Corps of Engineers stands as the most unique branch of the modern military establishment since its primary concern either in war or in peace is work. And yet it is so equipped that it could fight just like the infantry. Because of the variety of work associated with military engineering — i.e., repairing, destroying, and building — the corps has been so often mistaken to be a service element rather than as an arm. Actually, it is the latter. This is so because most of the work it performs is so closely akin with combat.

For instance, take the topographical surveys of the national territory which the Corps of Engineers conduct in peacetime. This is intended largely for better appraisal of the features of the land. Out of these surveys, terrain maps, which are essentially for use in combat, could be prepared. In wartime they are the engineers who build roads and bridges which they must blast later on should the necessity arise. The engineers are on the jobs of construction and destruction to keep the army always on the "move" or to provide protection if the army has to withdraw. No doubt whatever the engineers do are either directly or ultimately concerned with combat.

The military engineer has indeed played a prominent and important role in the military service since the very earliest time. The ancient Egyptian, Babylonian and Persian military establishments had their corps of engineers who build staging areas and landing sites and war monuments. The early Romans on



Fort Drum, one of the tiny islands off Corregidor main with its artillery pieces.

the other hand were noted for their military engineers who built the great Roman highways on which marched the conquering legions. But those same roads, all of which lead to Rome, contributed ultimately to the downfall of the Roman Empire. On those great highways marched the "barbarians" — the Goths, the Vissigoths, and the Huns — in their invasion of Rome. And there was Hannibal, one of the world's military commanders of all time. In his army was maintained a corps of topographical engineers which was charged with reconnaissance, surveys and mapping of camping areas and the battlegrounds.

In the years long past, as community life became more established, men found it greatly necessary to secure the home front. Here was where military engineers came in handy. They built the great earthenworks, the stone parapets, and stone forts to protect their cities and towns. Here the engineers built. On the other hand the besieging toils that were used against those parapets and forts were also the product of engineering skill. And here was where the engineers came in to destroy.

The father of modern military engineering was the great French genius and soldier, the Marquis de Sebastian la Preste (1633-1707), better known in military history as Marshal Vauban. The military service owe to him many of the general principles of military engineering, not necessarily the tactical concept and employment of the Corps of Engineers as we know it today but particularly the principles of defending and besieging fortresses.

Even after the lapse of three centuries the principles laid down by Vauban still hold good.

The most revolutionary changes in modern military engineering came about in the 19th century shortly after the American Civil War and the France-Prussian War. The tremendous utility of the railroad in military operations particularly in moving supplies and troops, became readily perceived as a result of the American Civil War. The Prussian General Staff under Von Moltke capitalized on this American experience and shortly before the France-Prussian War, the Prussian engineers constructed a railroad from probable staging areas to the great French fort at Metz, on the Franco-Prussian border.

It was during the Franco-Prussian War when the engineers were definitely organized into tactical units. The French Army had three regiments, mostly sappers and a few miners. The Prussian engineers, which was better organized for tactical operations, consisted of: sixty-nine Pioneer companies; seventeen Field Telegraph detachments; twelve each of Pontoon columns, light Brigade Trains, and Intrenching-tool Trains; and one each of the Torpedo Detachment, and Photographic Detachment.

The Great War of 1914-18 had effected the greatest change in military engineering, alongside the great development of field artillery. The tremendous fire power of the latter became readily evident and in order to minimize losses in manpower and materiel, revolutionary prin-

(Continued on page 52)