

FRANCE'S NAVAL AIR SERVICE IN THE WAR

BY ROBERT W. NEESER

ILLUSTRATIONS FROM OFFICIAL PHOTOGRAPHS FURNISHED BY THE
FRENCH MINISTRY OF MARINE



It is difficult to realize that only twelve years have elapsed since Santos Dumont attempted his first flight in France, and less than a decade since Henry Farman won the highly coveted Arch-deacon-Deutsch prize for covering, without alighting, a triangular course of one thousand yards. At that time not even the most enthusiastic advocates of flying could have foreseen the enormous influence which the new sport was to exert on future warfare. It is only now, after more than four years of war on both land and sea, that we have been able to grasp the full significance of the early efforts of those daring inventors. Truly the present war has been one of discoveries.

It is always interesting to look backward—in this instance to consider the rôle which it was expected that aircraft would play in naval warfare. In August, 1914, the French naval authorities had only just completed the tests of their first experimental hydroplanes, small aeroplanes equipped with floats in the place of wheels, so that they could rise from and alight on the water. This was a natural development of the land type of flying-machine, but the trials were not entirely satisfactory, and the manufacturers soon discontinued their efforts in this direction in order to place their factories at the disposal of the army, whose needs in the critical days of Mons and Charleroi were far more pressing.

The history of the growth and development of the French naval air service during the first three years of the war was very much like that of the "naval wing" of the British Royal Flying Corps. No very great progress had been made in the

development of seaplanes before the war. Such machines as were used were merely specimen models from the most successful French factories, and there had been no attempt at standardization, for flying was believed to be still in its infancy, with many years for experiment and improvement, before the new arm would be called upon to play its part under actual active service conditions.

In August, 1914, the French navy had only two aeronautic stations ready for service. Both of these were situated on the shores of the Mediterranean Sea, where, in accordance with the terms of the Anglo-French entente, the greater part of the French naval forces were concentrated. The official communiqués for a long time remained silent on the work done by the naval airmen operating in that region, but it is a matter of record that within forty-eight hours after Germany's declaration of war every machine attached to the aviation centres of Nice and Bonifacio took the air and made reconnaissance flights which proved of the greatest assistance to the naval forces covering the transportation of the Nineteenth Army Corps from Algeria to France. It is evident that the extensive use of aircraft for purposes of naval reconnaissance had not been seriously contemplated before the war. The very design of the machines owned by the navy rendered them unsuited for distant operations at sea. But the necessities of the situation, and the importance of obtaining reliable information regarding the movements of the German cruisers *Goeben* and *Breslau*, compelled Admiral de Lapeyrière to call upon the naval airmen to co-operate with his sea-scouts in locating the elusive enemy.

It is no exaggeration to say that the

results of these first performances under actual war conditions were far-reaching. Officers at the Ministry of Marine in Paris, who at first had been inclined to subordinate the navy's programme to the urgent needs of the army air service, now began to consider the advisability of resuming the development of the navy's new arm. In fact, many days were not allowed to elapse before orders were issued reconstituting the various administrative services charged with the duty of studying the naval requirements of the situation, of creating the material, and of training the personnel needed for the operations on the "naval front." And this was no easy task, for the development of a satisfactory type of seaplane had to be accomplished under the stress of war. The early land-going aeroplanes with which the Mediterranean escadrilles patrolled the seas in the first week of the war had to be replaced by seaplanes of various sizes and models, and many months necessarily elapsed before the few factories working for the navy were able to perfect a standardized type suited to all conditions of service.

While this was going on, the organization of the "A. M."—aviation maritime—as a real striking force was progressing methodically. Aviation centres, fully equipped with all the necessary accessories, were established at strategic points as fast as the machines and pilots could be obtained. In each zone the "A. M." had a different rôle to play. At Dunkirk, Boulogne, and Havre the naval airmen were occupied particularly with the task of raiding the German submarine bases on the Belgian coast; at Port Said they acted in *liaison* with the British land-forces charged with the defense of the Suez Canal, while in Montenegro they were called upon to maintain an active sea patrol in connection with the blockading operations of the French cruisers off the Strait of Otranto. In May, 1915, the possibilities of the air service had been so fully developed that additional centres were organized at Venice, Brindisi, Salonica, Bizerte, La Pallice, and Toulon, and since then every effort has been made to line the seacoast of France with as many other stations as the needs of the service demanded. No job was too im-

portant and none too insignificant the moment a sufficient number of seaplanes began to be produced.

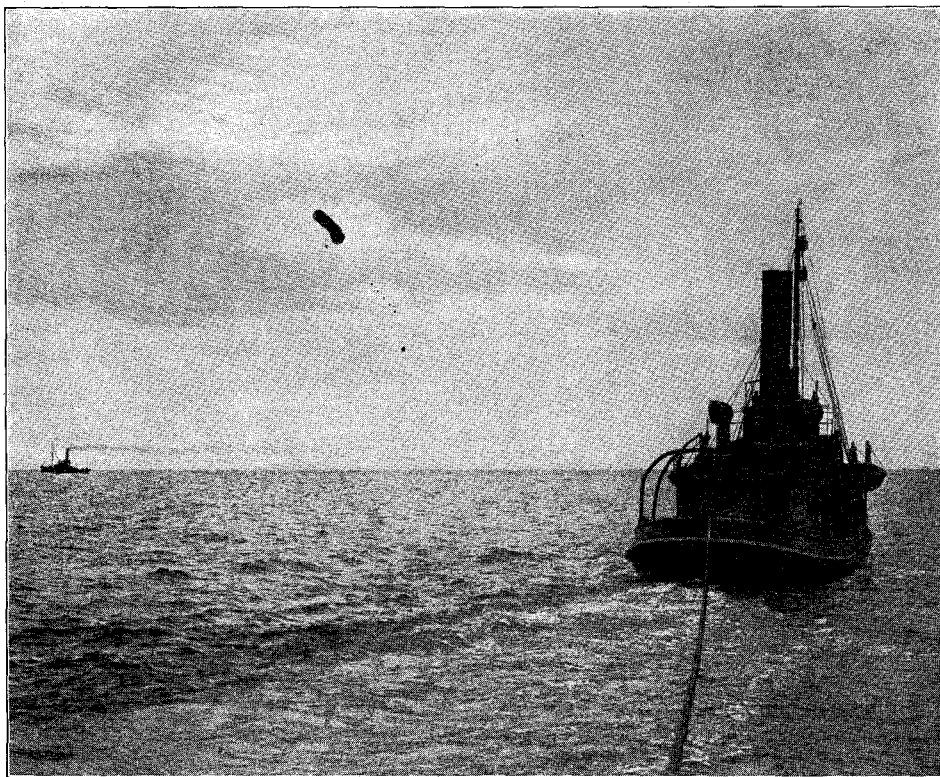
The unexpected success of the heavier-than-air craft and the importance of supplementing the existing air patrols in view of the constantly increasing activities of the German submarines emboldened the Ministry of Marine to depart from its pre-war programme in other respects. Early in 1914 the French navy had obtained a credit of thirty million francs for the establishment of a number of dirigible centres, but on the outbreak of hostilities the project was suddenly abandoned and "the credit was returned to Parliament." It was not until April, 1915, after the British naval air service had decided to operate several of its own airships from the port of Dunkirk, that the value of these larger aircraft was fully realized by the French navy. Fortunately, at that moment, the Ministry of War was able to spare a few dirigibles, and these were immediately sent to Havre and Bizerte, where important centres were in process of development for the more efficient protection of the frequent merchant convoys that plied in those waters. Nor was this all. Experiments made in England with captive balloons during the summer of 1916 decided the French navy to adopt this type also for observation purposes, and not many months passed before a number of "sausages" were to be seen floating in the air at various points along the coast-line.

Incidentally, it should be mentioned that the work performed by the various branches of the naval air service could never have been attempted without the existing methods of communication. Wireless telegraphy rendered possible an efficient co-operation between the air patrols, sea patrols, and shore stations. But there have been moments when the wireless could not be used, and at those times the aerial observers have had to resort to the use of carrier-pigeons and despatch-buoys for the transmission of their messages.

This was the last resort left to Ensign Teste after he had been left for dead by both friend and foe amid the wreckage of his sinking seaplane. His machine belonged to an escadrille from Dunkirk

which, on the morning of May 26, 1917, ventured on an extensive reconnaissance flight over the English Channel. The French airmen had been in the air about an hour when they sighted the periscope of a submarine cruising not far from the Belgian shore. They lost no time in at-

the German monoplanes that was circling quite near, but before he could pull the trigger he was wounded. Still he determined to sell his life as dearly as possible. There were still a few more rounds left in the cartridge-belt of the gun, and these, with a supreme effort, he managed to get



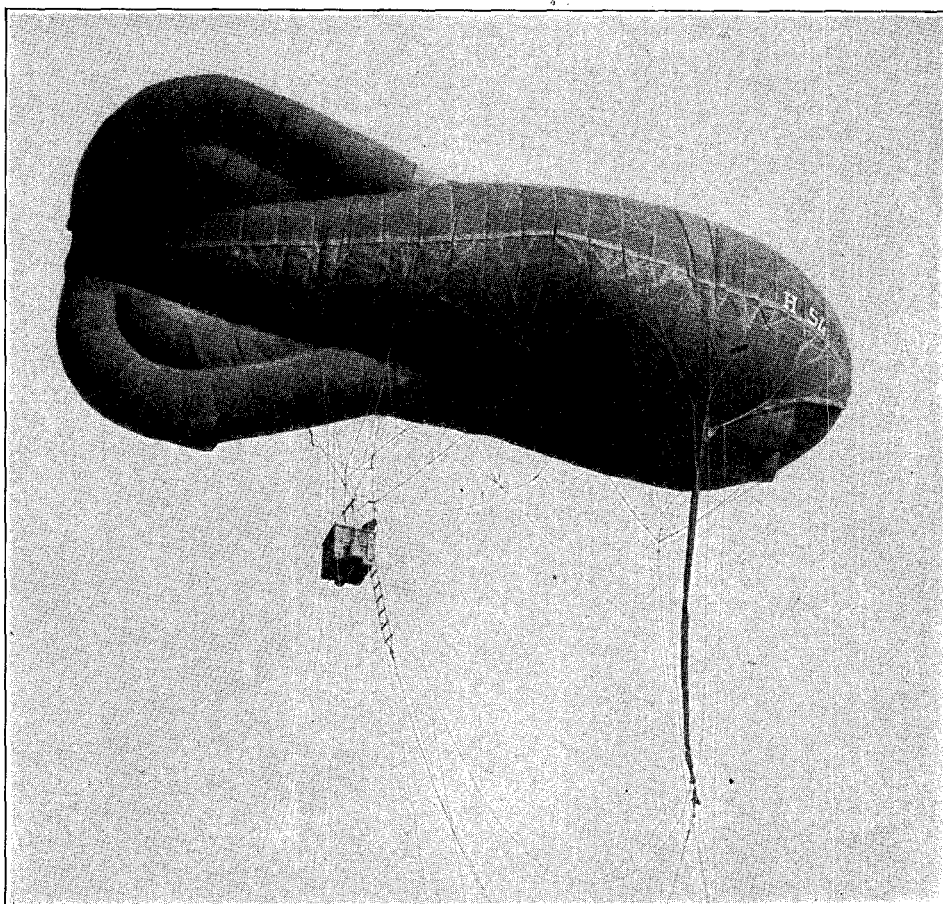
Observation balloon and its tugboat about to make experiments at sea.

tacking it, and one of the seaplanes had already managed to drop its depth bombs over the spot where the U-boat was noticed, when three German scouting planes out of Belgium swooped down upon them. Ensign Teste and his pilot, Quartermaster Amiot, were soon so hard pressed that they decided to alight in order to "continue the action on the surface." But the enemy's fire had been accurate as well as rapid. The engine of the French seaplane was quickly riddled with bullets, the machine-gun mount disabled, and the pilot twice seriously wounded. Ensign Teste picked up the machine-gun and tried to fire it from his shoulder at one of

off in the direction of the enemy before he dropped back into the seaplane, weak from the loss of blood.

Certain that they had killed both of the occupants of the French machine, the German aviators flew away in chase of their remaining adversaries. What happened to Lieutenant Teste and his plucky pilot during the next few hours had better be told in the French officer's own words:

"The hull of the hydroplane was riddled with bullet-holes, the motor was entirely useless, and one of the gasoline-tanks was on fire. We struggled to plug the holes through which the sea water



Captive balloon ("sausage") descending.

was pouring in, but the hydroplane suddenly started to heel dangerously and we had to resort to bailing with a small canvas bucket. For a while the machine floated on an even keel, but the next time it started to settle by the stern. At nine o'clock seven Boche aeroplanes were seen coming from the east. I at once crawled in between the gasoline-tanks and the bottom of the body of the seaplane, which was already half filled with water. In this manner I managed to escape discovery when one of the Boche machines alighted on the water alongside of our seaplane, but my quartermaster, who was lying wounded in the bottom of the boat, was made prisoner. Before leaving the enemy fired a number of shots at the seaplane in order to sink it, and one of the bullets pierced the reserve gasoline-tank,

setting it on fire. Fortunately, the other tank had stopped burning some time before."

In this critical situation Ensign Teste's nerve never once failed him, although in the end it did not save him from capture. Waiting until the enemy's aeroplanes had flown away, he slowly dragged himself from his place of concealment. One hope of obtaining aid still remained. This one he now decided to employ. Tearing a leaf from his note-book he wrote out the following words: "Amiot and others picked up by Boches. Concealed myself under gasoline-tank. Wreckage of my seaplane still afloat, though leaking dangerously. Keeping up courage. Vive la France! (Signed) Teste."

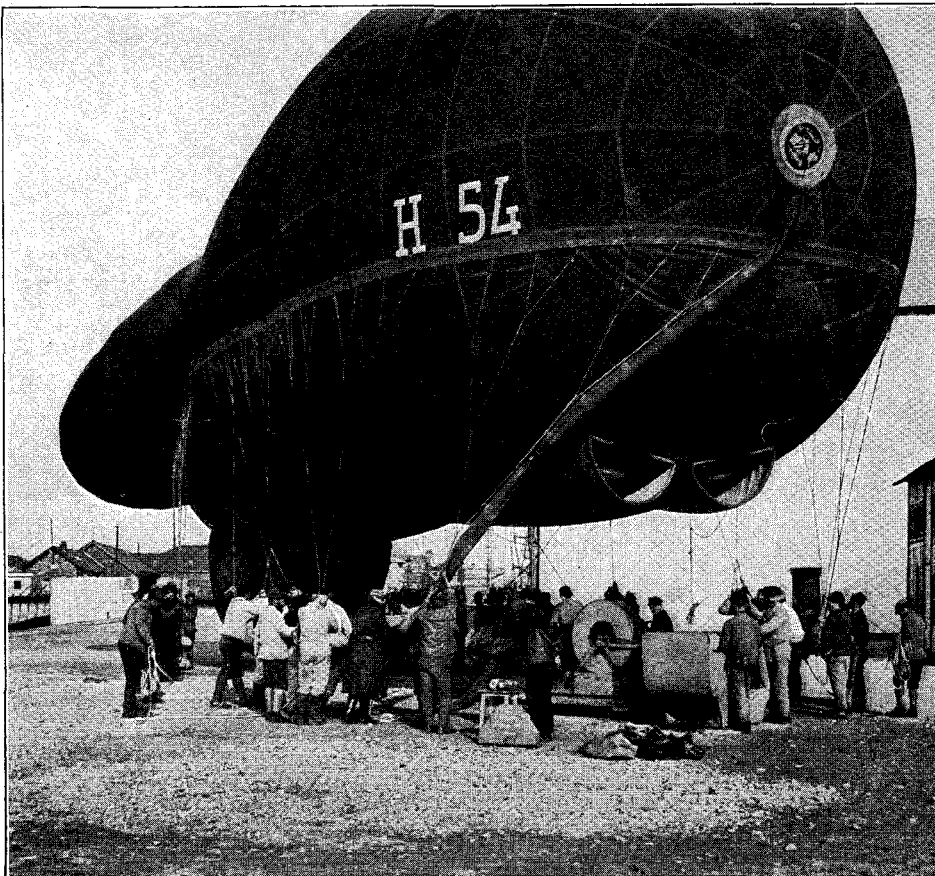
It was three o'clock in the afternoon when he commended this message to the

care of his last carrier-pigeon. Then he resigned himself to his fate. Slowly he watched the sun sink in the sky and disappear below the horizon. Slowly he felt the seaplane settle lower and lower in the water, until it was supported only by the spread of its wings. Hour after hour passed. Still no help came. Finally, a little before midnight, the sound of approaching vessels became audible. Nearer and nearer they came, until he could make out the dark outlines of low-lying torpedo craft. A cry of hope rose from the lips of the shipwrecked aviator. His faithful carrier-pigeon had delivered his message. But his joy was short-lived. Help had come, but his rescuers were Germans. He was a prisoner after all.

It will be apparent that the French naval air service mostly concerns itself with

trying to discover the presence of enemy submarines off the Allied shores, where the trade routes converge, and then to attack them if possible, or at least compel them to submerge into the maze of currents, rocks, nets, and mine-fields among which they must grope blindly. The mere presence of an Allied seaplane is often sufficient to cause the U-boats to dive, and in this way the hostile raiders are kept continually on the move and often prevented from carrying out their own fell purposes.

The aerial patrols have also other duties. Their most monotonous service is perhaps that of accompanying and escorting the numerous merchant-ship convoys that almost daily ply in and out of the Allied bays and harbors. Then there are frequent bombing raids to be carried out over the enemy's submarine bases and aerodromes in Flanders. Sometimes,



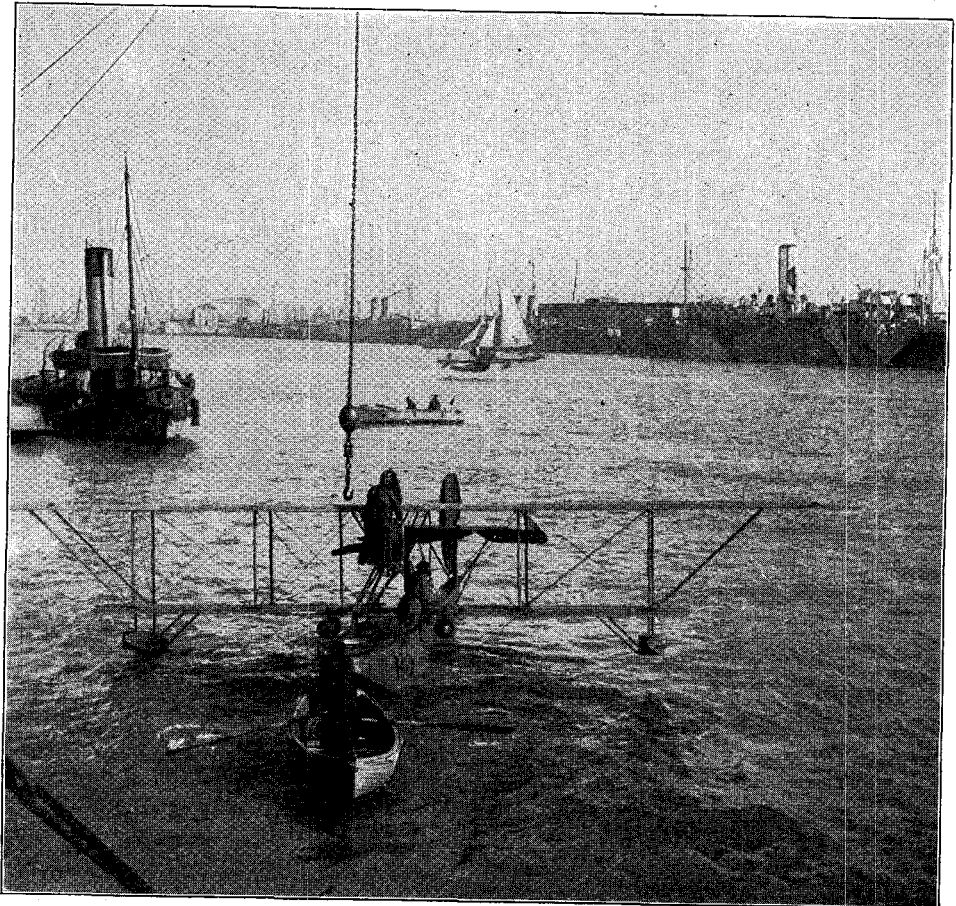
Captive balloon held by its windlass.

when the weather conditions are favorable, flights are made over the transparent waters of the Mediterranean and Adriatic seas, to make sure that the enemy's mine-laying submarines have not been active.

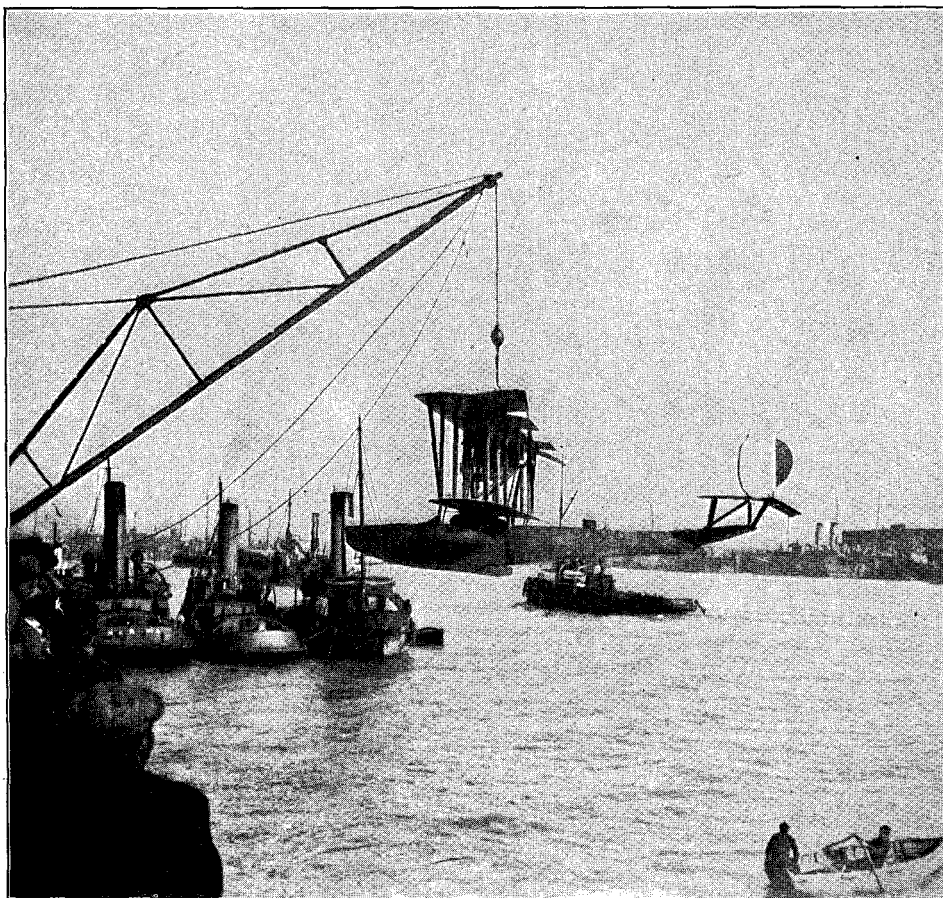
It is only when the naval airman catches a glimpse of a submarine, or even only that of a periscope, that he experiences a thrill which dispels the monotonous drudgery of the daily routine. But the disappointments are apt to be frequent, for it is one thing to sight a submarine and quite another to reach a position directly overhead before her crew have noticed the warning hum of the seaplane's motor and have warily concealed their frail craft beneath the protecting ocean waves. A seaplane may make daily flights over the Mediterranean, in the Adriatic, across the Channel, or along

the coast of the Bay of Biscay, for months and months at a time without ever sighting a single periscope. The naval aviators say that they always return home with the expectation of getting one the next time, especially after they hear how some other pilot has managed to account for a U-boat, but in comparison with the number of seaplanes and dirigibles operating on the "front de mer," as the French have familiarly termed it, the number of opportunities for attacking submarines are extremely few. In November, 1917, there were thirteen encounters between aircraft and undersea boats reported, but in the month following there were only seven, and in January, 1918, the total had dropped to five.

Much has been heard of the explosive depth bombs used by the Allied airmen



Seaplane ready for a flight.



Seaplane being hoisted on board the "mother ship."

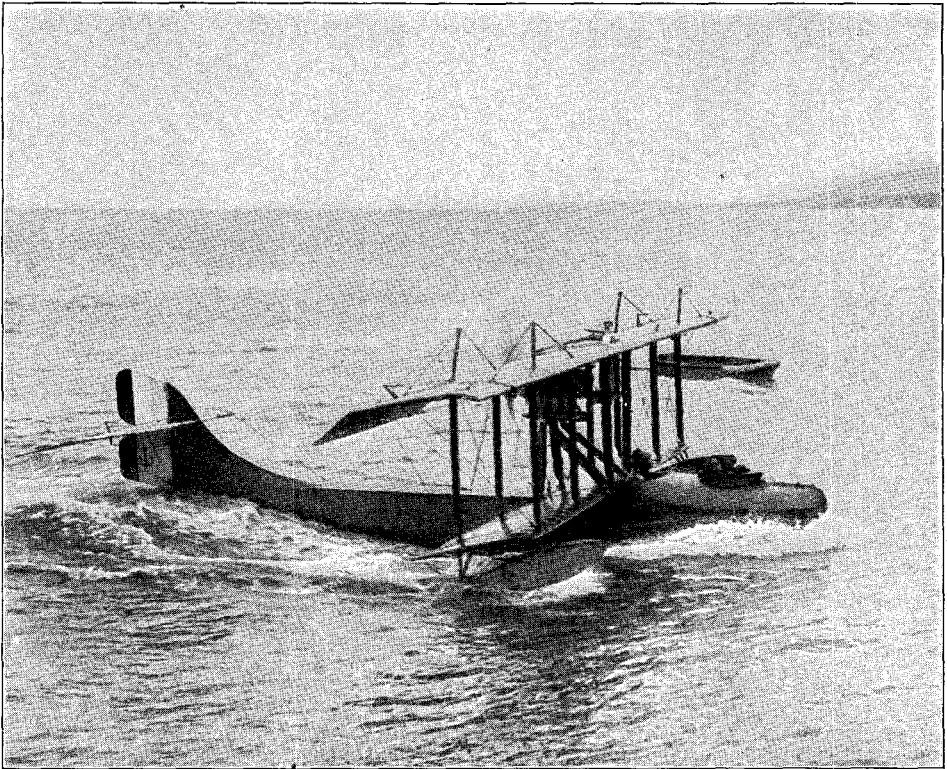
against the German submarines. This is practically the only weapon with which the seaplanes are supplied during their flights over the various "submarine zones." It is the most effective method of attack against the U-boats yet devised. Even the Germans have admitted this and have protested against the "pernicious methods employed against the U-boats by the Allies." But even when the depth bombs are dropped squarely on their targets, their explosion leaves no traces beyond a spreading smear of oil and a little wreckage on the surface of the waves, so that one seldom knows for certain just what actually did happen under the water when the crashing detonation took place. Some day the world may learn just how many submarines were lost by the enemy in his great undersea offensives, but the

circumstances under which many of them met their fate and where will forever remain shrouded in mystery. "Le fond de la mer seul connaîtra leur sort tragique!"

Even the large, conspicuous dirigibles sometimes manage to drop their wicked bombs uncomfortably close to the enemy's raiders. One of them, the large air-cruiser *Lorraine*, belonging to the aviation centre at Bizerte, while returning from convoy duty, sighted a hostile submarine not far from the Tunisian coast. "It was then eight o'clock in the evening, and we were flying east, at a height of about four hundred yards. Between the *Lorraine* and the shore lay a large, whitish mist-cloud, which spread over the sea for a distance of about two miles. Just as the dirigible was about to enter the cloud one of the lookouts noticed a suspicious-

looking shadow in the water below. It seemed to be cigar-shaped and about a hundred yards long, while behind it trailed a curious whitish streak, which might very well be the commotion caused by the wake of a submarine under way. The dirigible at once turned toward the submarine, for there was no longer any doubt that it really was one, and prepared

could reach his objective we managed to reach a position almost directly over him, but we were still flying so high, in order to conceal ourselves as much as possible, that the submarine appeared no larger than a black speck on the surface of the sea. We dropped several of our bombs and observed their explosions. Then we sent out a radio call to inform the shore



Seaplane running on water preparatory to rising in air

to engage it. But by this time the enemy had reached the covering protection of the fog, and we knew that if ever we sighted him again it would be only by the merest chance. As we reached the opposite end of the cloud we fortunately sighted him again about a mile to the northward. The submarine was partly submerged, but moving through the water fast. We altered our course toward our prey, but this time he again anticipated our manoeuvre and changed his, with the obvious intention of once more gaining the shelter of the fog-bank. Before he

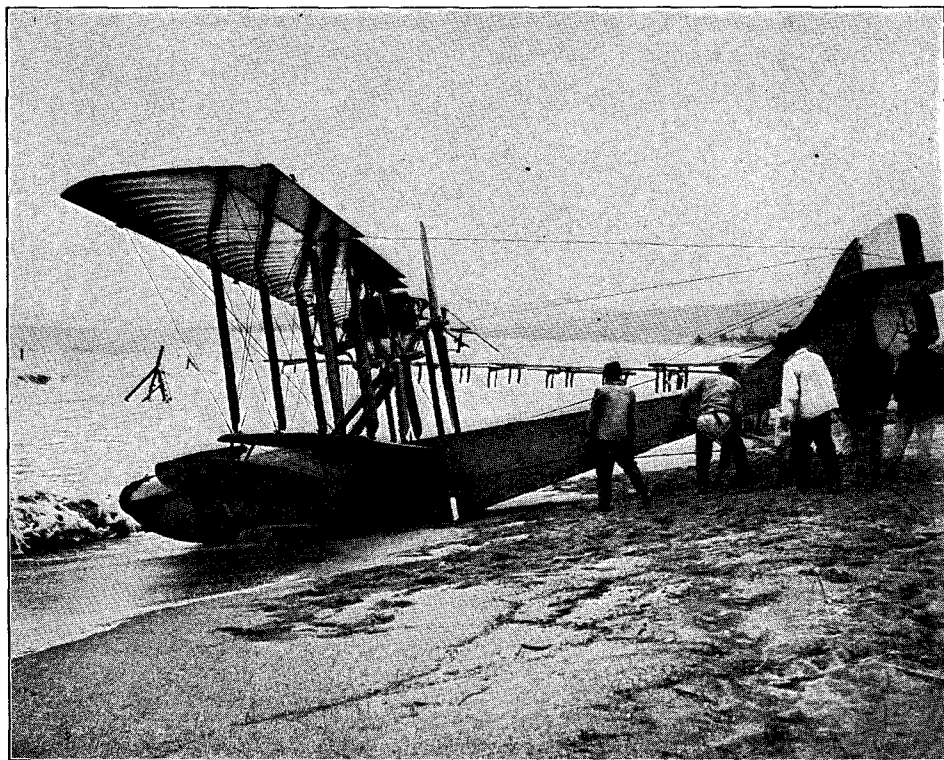
stations of the locality in which we had carried out our attack. Returning over the spot where the submarine was last seen to dive we released a few more depth charges, but saw nothing more of our enemy."

But of all the tales of duels between aircraft and undersea craft, the following deserves special mention as the only instance, perhaps, where the naval airman's feat was formally confirmed in the terse language of an official communiqué:

While on patrol in the English Channel

two French seaplanes in command of Ensign Merveilleux du Vignaux sighted a submarine cruising on the surface about eight miles away. Realizing that if he headed directly for the German vessel the latter would become aware of his approach long before he could reach a position favorable for attacking it, Ensign du Vignaux by a quick turn changed the di-

by the noise of the seaplanes' motors, began to make preparations for submerging, but judging from the deliberate manner in which the sailors went about their work it was evident that they had not yet been able to distinguish their approaching foes in the sun's rays. A few seconds more and the leading seaplane was directly overhead. The conning-tower was still



Launching a seaplane.

rection of his flight in order to lull the crew of the submarine into a false sense of security. For almost ten minutes did he maintain this course, until, reaching a position directly in a line between the sun and the raider, he again headed straight for his enemy. With the rays of the sun shining directly behind his back, he felt that he ran little risk of being seen by the Germans, while he himself enjoyed a perfect view of the undersea boat's movements.

When the French machines were still some distance off the Germans, warned

awash when Ensign du Vignaux released his depth bombs. He was flying so low at the time that there was little chance of missing the target. The charges plainly straddled the fleeing U-boat.

"Then began the agony of the submarine," modestly reported the young aviator. "It was some time before any part of the hull reappeared above the surface, but when the forward end of the vessel finally did come into view I experienced a thrill of victory such as I had never anticipated even in my wildest dreams. Slowly the bow of the U-boat rose above

the waves. Judging from the extreme angle of inclination of the hull, over forty-five degrees, the raider must have been seriously injured by the double bomb explosion. After a few seconds the submarine sank again, only to reappear a second time, a third time, a fourth time, and a fifth time. Each time the prow of the corsair dressed itself more and more perpendicularly in the air, until after the fifth and last time the red-painted under-

body could be seen above the waves. This was the German craft's last and supreme effort. Not a man of her crew ever had a chance to escape as long as the top of the conning-tower remained submerged. The Boches were trapped like rats within the steel shell of their vessel, but the terror and despair of those human beings within was most dramatically pictured by the dying agonies of that fiendish monster."

WHAT SHALL I BRING YOU?

By Eliza Morgan Swift

"WHAT shall I bring you when I come again?"

Bring me, dear love, those things you take away:
The peace of happy hours,
Light of a summer's day,
Sweetness of flowers,
For when you're gone the world is drear and gray.

Bring me that look which ever makes your eyes
A rare and wondrous part
Of heaven's mysteries,
And raises up my heart
To meet, once more, the challenge from the skies.

Bring me your thoughts, whose beauty heals my pain;
Your voice, whose every tone
Sings in my weary brain.
Ah, leave me not alone!
But bring yourself, unchanged, to me again.

