

THE VICTORY AT SEA

By ADMIRAL WILLIAM SOWDEN SIMS



LIFE ON A SUBMARINE

The Submarines of the Allies Sailed Almost Always Under Water in the Daytime.—Men Nearly Exhausted at end of an Eight-day Cruise—How Fighting Was Carried on Under the Sea—German U-Boats Sailed Unsuspectingly Into Danger—The Small Patch of Oil That Meant Destruction of One of the Enemy Boats—The Work of the A L-2.

In the daytime the Allied submarine sailed nearly all the time under the water, maintaining what was known as "periscope depth," that is, it had merely a few inches of its periscope exposed for a short time every fifteen minutes or so, sweeping the sea for a distance of many miles. As soon as darkness set in, the boat usually emerged, began taking in new air and recharging its batteries, the crew seizing the opportunity to stretch their legs and catch a welcome glimpse of the external world.

The simple fact that the Allied submarines spent the larger part of their time under water, while the German spent the larger part of their time on the surface, gave our boats a great military advantage over the foe, but it likewise made existence in our submarine service more arduous. Even on the coldest winter days there could be no artificial heat, for the precious electricity could not be spared for that purpose; and the temperature inside the submarine was the temperature of the water in which it sailed.

The close atmosphere, heavily laden also with the smell of oil from the engines and the odors of cooking, the necessity of going for days at a time without a bath or even a wash, added to the discomfort.

The stability of a submerged submarine is by no means perfect; the vessel is constantly rolling, and a certain number of the crew, even the experienced men, are frequently seasick. This movement sometimes made it impossible to stay in a bunk and sleep for any reasonable period; the poor seaman would perhaps doze off, but a lurch of the vessel would send him sprawling on the deck. One could hardly write, for it was too cold, or read, for there was little light, and because of the motion of the vessel it was difficult to focus one's eyes on the page. A limited amount of smoking was permitted, but the air was sometimes so vitiated that only the most vigorous and incessant puffing could keep a cigarette alight.

One of the most annoying things about the submarine existence is the fact that the air condenses on the sides as the coldness increases, so that practically everything becomes wet; as the sailor lies in his bunk, this moisture is precipitated upon him like rain drops. This combination of discomforts usually produced, after spending a few hours under the surface, that mental state commonly known as "dopey."

A Cruise. The usual duration of a "cruise" was eight days, and by the end of that time many of the crew were nearly "all in," and some of them entirely so. But the physical sufferings were the least discomforting. Any moment the boat was likely to hit one of the mines the Germans were always planting. A danger which was particularly vexatious was that a British or an American submarine was just

anywhere in the neighborhood; a merchant ship, from its relatively high bridge, could sometimes see the torpedo approach and turn out of its way; it was almost impossible to see a wake from the low conning tower or periscope of a submarine, and no one except the observer had a glimpse of the surface. But the small size of the submarine was in itself a great protection; we launched many torpedoes, but only occasionally scored a hit. The missile would usually pass a few feet ahead or astern, or would glide over or under the submerged hulk, perhaps a few inches only saving it from destruction. Once an American torpedo hit its enemy squarely on the side, but failed to explode! If the torpedo once struck and functioned, however, it was all over in a few seconds. A huge geyser of water would leap into the air; the submarine would sometimes rise at the same time, or parts of it would fly in a dozen directions; then the waters would gradually subside, leaving a mammoth oil-patch, in which two or three members of the crew might be discovered struggling in the waves. Most of the men in the doomed vessel never knew what struck them.

Mistakes of this sort were so common that, whenever an Allied submarine saw an Allied destroyer at a distance, it usually behaved just as a German would have done under the same conditions; it dove precipitately to the safety of deep water. Our men, that is, did not care to take the risk of a discussion with the surface craft; it was more prudent to play the part of an enemy.

One day one of the American submarines, lying on the surface, saw an American destroyer, and, cheered in their loneliness by the sight of such a friendly vessel, waited for it to approach, making all the identification signals so carefully set down in the books. Instead of a cordial greeting, however, about twenty rounds of projectiles began falling about the L-boat, which as hastily as possible dropped to sixty feet under the surface. In a few minutes depth charges began exploding around him in profusion, the plates of the vessel shook violently, the lights went out and the end seemed near. Making a last effort, the American submarine rose to the surface, sent up all the recognition signals the officers could think of, and this time with success. The destroyer approached, the commander shouting from the bridge:

"Who are you?"
"American Submarine A L-10."
"Good luck, old man," came a now familiar voice from the bridge. "This is Bill."
The commander of the destroyer and the commander of the submarine had been room mates at Annapolis!

Easy to Sink Merchantmen. In other ways our submarine force passed through the same experiences as the Germans. Its adventures shed the utmost light upon this campaign against merchantmen which the Germans had depended upon to win the

war. The observer at the periscope was constantly spotting a huge Allied merchantman making its way into port. The great ship sailed on, entirely oblivious of the periscope and the eye of the British or American watcher fixed upon her.

"How easy to sink her!" he would say to himself. This game in which the Germans were engaged was a dangerous one, because of Allied anti-submarine craft; but, when it came to attacking merchant ships, it was the easiest thing in the world. After a few weeks in a submarine it grew upon our men that the wonder was not that the Germans had sunk so many merchant ships, but that they had sunk so few. Such an experience emphasized the conviction, which was prevalent in both the British and American navies, that the Germans were not particularly skilful at the occupation which seemed to be so congenial to them. Indeed, there are few things in the world that appear so absolutely helpless as a great mer-

chant ship, from its relatively high bridge, could sometimes see the torpedo approach and turn out of its way; it was almost impossible to see a wake from the low conning tower or periscope of a submarine, and no one except the observer had a glimpse of the surface. But the small size of the submarine was in itself a great protection; we launched many torpedoes, but only occasionally scored a hit. The missile would usually pass a few feet ahead or astern, or would glide over or under the submerged hulk, perhaps a few inches only saving it from destruction. Once an American torpedo hit its enemy squarely on the side, but failed to explode! If the torpedo once struck and functioned, however, it was all over in a few seconds. A huge geyser of water would leap into the air; the submarine would sometimes rise at the same time, or parts of it would fly in a dozen directions; then the waters would gradually subside, leaving a mammoth oil-patch, in which two or three members of the crew might be discovered struggling in the waves. Most of the men in the doomed vessel never knew what struck them.

Work of the E-35. Thus, early one evening in May, 1918, the E-35, a British submarine,

was patrolling its billet in the Atlantic, about two hundred miles west of Gibraltar. About two or three miles on the port beam a long, low, lying object was distinguished on the surface; the appearance was nondescript, but, to the practiced eye at the periscope, it quickly took shape as an enemy submarine. As the sea was rather rough, the E-35 dived to forty feet; after a little while it ascended to twenty-six, put up the periscope, and immediately saw, not far away, a huge enemy submarine, proceeding north at a leisurely pace, never once suspecting that one of its own kind was on its trail.

In order to get within range and cut the German off, the Britisher dived again to forty feet, went ahead with all the speed it could muster for twenty minutes, and again came near enough the surface to put up its periscope. Now it was directly astern; still the British submarine was not near enough for a sure shot, so again it plunged beyond periscope depth, coming up at intervals during the next hour, each time observing with satisfaction that it was lessening the distance between itself and its prey. When the range had been decreased to two hundred and fifty yards, and when the E-35 had succeeded in getting in such a position that it could fire its torpedo, the missile was launched in the direction of

the foe. But this was only another of the numerous occasions when the shot missed. Had the German submarine been a surface ship, it would have seen the wake and probably escaped by flight; but still it sailed nonchalantly on its way, never suspecting for a moment that a torpedo had missed its vitals by only a few feet.

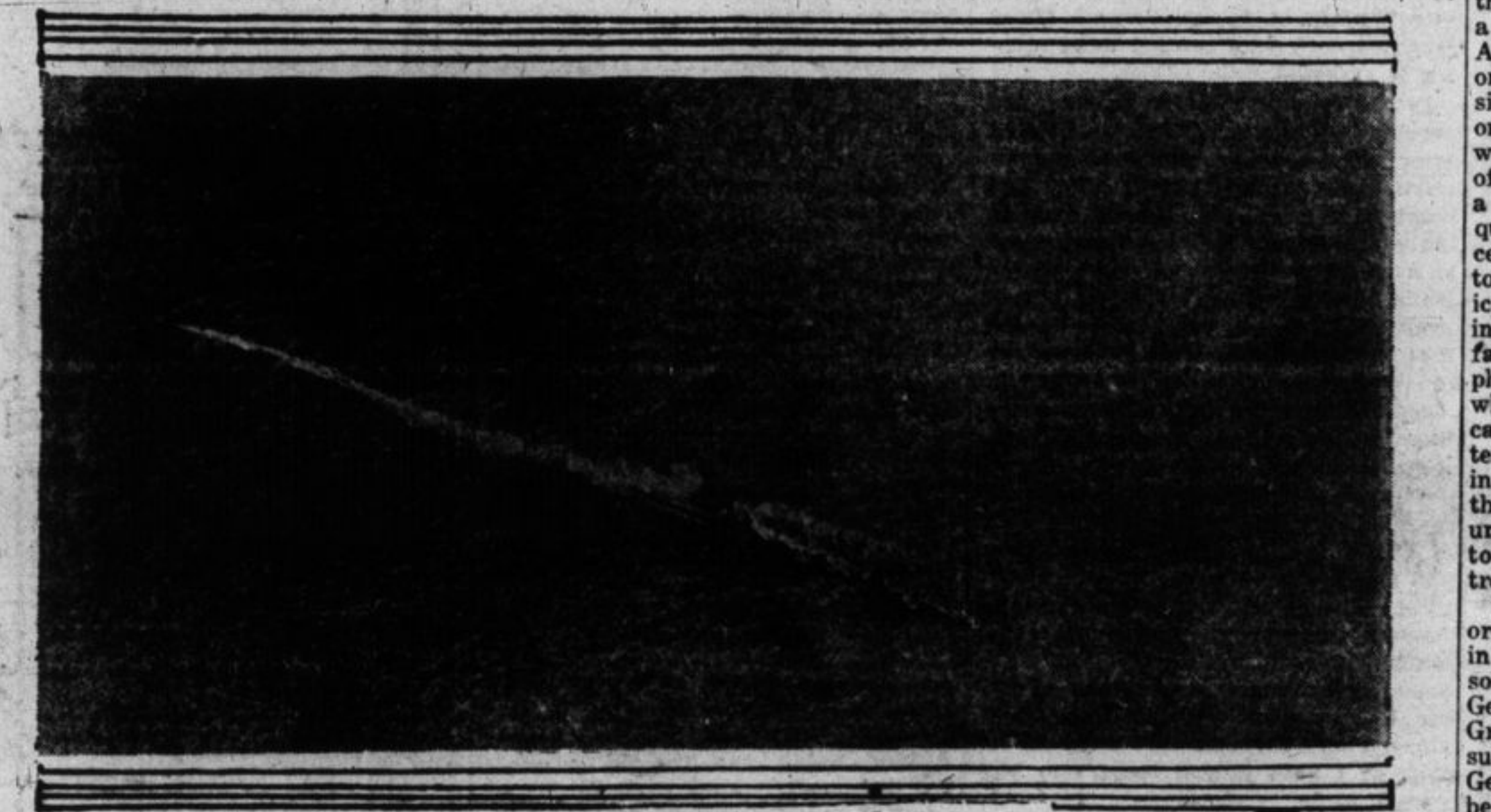
Soon the E-35 had crept still closer and fired two torpedoes simultaneously from its bow tubes. Both hit at the same time. Not a glimpse of the German submarine was seen from that moment. A terrific explosion was heard, a mountain of water rose in the air, then in a few seconds everything was still. A small patch of oil appeared on the surface; this gradually expanded in size until it covered a great area; and then a few German sailors came up and started swimming toward the British vessel.

A "Boomerang" Torpedo. We Americans had seven submarines based on Berhaven, Ireland, whose "billets" were located in the approaches to the Irish Sea. The most spectacular achievement of any one of our boats was a curious mixup with a German submarine, the details of which have never been accurately ascertained, but the practical outcome of which was indisputably the sinking of the German boat. After a week's hard work on patrol, the A L-2 was running back to her base on the surface when the lookout sighted a periscope. The A L-2 at once changed her course, the torpedo was made ready to fire when the quiet of the summer afternoon was rent by a terrific roar and explosion. It was quite apparent that something exceedingly distressing had happened to the German submarine; the American turned, and made a steep dive, in an attempt to ram the enemy, but failed. Listening with the hydrophone, the A L-2 could hear, now the whirring of propellers, which indicated that the submarine was attempting to gain the surface and having difficulty in doing so, and now and then the call letters of the German underwater signal set, which seemed to show that the vessel was in distress and was sending appeals for aid.

According to the Admiralty records, a German submarine operating in that area never returned to port; so it seems clear enough that this German was lost. Commander R. C. Grady, who commanded the American submarine division, believes that the German spotted the American boat before it was itself seen, that it launched a torpedo, that this torpedo made an erratic course (a not infre-

quent trick of a torpedo) around our ship, returned and hit the vessel from which it started. There are others who think that there were two German submarines in the neighborhood, that one fired at our boat, missed it, and that its torpedo sped on and struck its mate. Probably the real facts about the happening will never be explained.

(To be continued.)
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(U. S. Official) AIR VIEW OF A SUBMERGED SUB. The submarine was 35 feet below the surface when the photograph was taken.



(U. S. Official) AT BREAST AVIATION HEAD-QUARTERS.

Capt. T. T. Craven (sitting in the centre of the front row) who was Aide for aviation on the staff of Admiral Wilson, and his assistants.

chant ship when observed through the periscope of an underwater boat.

Underwater Fighting. Whenever an Allied submarine met its enemy the contest was usually a short one. The issue, one way or the other, was determined in a few minutes. On rare occasions, there were attempts to ram; almost invariably, however, it was the torpedo which settled the business. If our boat happened to be on the surface when it sighted the German, which, however, was very seldom the case, the first manoeuvre was to dive as quickly and as unostentatiously as possible. If it succeeded in getting under before the U-boat discovered its presence, it then crept up, guided only by the periscope, until it had reached a spot that was within range. The combat, as was the case so frequently in this war, was one-sided. The enemy submarine seldom knew its assailant was



(U. S. Official) The submarine had come up until its periscope was above the surface to fire its torpedo. The white disturbance is caused by the compressed air by which the torpedo is driven.

Opinions and visits should never be forced upon people.



NANCE O'NEIL. Who comes with her New York Broadway cast and production in "The Passion Flower" at the Grand on Thursday and Friday, May 27th and 28th.

Flies Over Bolivian Andes. La Paz, Bolivia, May 22.—Lieut. Donald Hudson, the American aviator, who was engaged by Bolivia last year to organize a flying corps for the Bolivian army, made a daring crossing over Mount Illimani, the lofty peak of the Bolivian Andes, close to this city. Lieutenant Hudson passed over La Paz at a height of 18,000 feet, or 30,000 feet above sea level. When he descended his machine was covered with ice.

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