

O. N. I. 250-G  
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SERIAL NO. 9

U-512

DECLASSIFIED

SUNK BY ARMY BOMBER B-18A

10-2-42

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# POST MORTEMS ON ENEMY SUBMARINES



DIVISION OF NAVAL INTELLIGENCE

DECLASSIFIED

**CONFIDENTIAL**

NAVY DEPARTMENT  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
WASHINGTON

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*SERIAL No. 9*

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REPORT ON THE  
INTERROGATION OF SOLE SURVIVOR  
FROM U-512 SUNK ON OCTOBER 2, 1942



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## DECLASSIFIED

### O. N. I. 250 SERIES

NAVY DEPARTMENT,  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS,  
*Washington, October 25, 1942.*

1. The O. N. I. 250 Series—Post-Mortems on Enemy Submarines—consist of intelligence obtained from the sinking or capture of enemy submarines. The suffix G, I, or J indicates whether the submarine is German, Italian, or Japanese.

2. In preparing this series of pamphlets, of which it is hoped there will be many, all information considered to be of value or interest to the naval service is included. While all the material does not relate directly to enemy submarine operations and personnel, it is in effect the intelligence which has been gathered in the course of antisubmarine operations.

3. This publication, like those which are to follow, is Confidential. Many of the data were formerly classified as Secret. But, the classification has been lowered in order that the service at large may benefit from the information collected and presented herein. *While no accountability is required, attention is invited to the fact that the intelligence contained in this series must be safeguarded in accordance with the strict and literal interpretation of its classification. The information compiled in this series can be of too great assistance in our operations at sea to hazard the loss of a source at once so important and so irreplaceable.*

H. C. TRAIN,  
*Rear Admiral, U. S. Navy,  
Director of Naval Intelligence.*

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## Chapter I. INTRODUCTORY REMARKS

*U-512* was sunk by U. S. Army B-18A bomber No. 37-579 of the 99th Bombardment Squadron at 1150 GMT on October 2, 1942, in approximate position 05°50' N., 52°25' W. One survivor was seen to reach the surface shortly after the attack.

A rubber life raft was dropped in the vicinity of the survivor who was seen to climb aboard and wave his thanks. Despite a search nothing further was heard until 10 days later when the raft with its emaciated passenger was picked up by the U. S. S. *Ellis* in position 07°52' N., 56°05' W.

As *Ellis* was on an operational task it was not until 18 days later, on October 30, that the prisoner was landed at Trinidad, B. W. I. From Trinidad he was forwarded to the United States by air.

The prisoner was mildly security conscious, but more through fear than patriotism. Once he was convinced that he was the sole survivor he lost some of his reticence.

It is pointed out that this report is based on the story of one survivor and that its accuracy cannot be fully established. Dates, where given, are ostensibly to the best knowledge of the prisoner and in most cases appear to be plausible. Due to the difficulty of quieting the prisoner's fears of post-war retribution and the necessity for careful checking of his unsupported testimony, this report has been delayed to an unusual degree.

There would appear to be no doubt of the destruction of the submarine. Further confirmation of the sinking is indicated by intercepted correspondence inquiring as to whether any news is known of *U-512*'s captain, missing since October.



## Chapter II. CREW OF U-512

According to the survivor, *U-512* carried 49 officers and men. Her commanding officer was Kapitänleutnant Wolfgang Schultz, son of an admiral (*O. N. I. Note.*—Probably Konteradmiral Heinz-Edmund Schultz of the 1912 term), and member of the "Nase" Schultz family so distinguished in recent German naval history. Wolfgang Schultz, however, failed utterly to measure up to his impressive heritage. He was thoroughly disliked and mistrusted by his crew who considered him vain, temperamental, and professionally incompetent. He drank heavily on board and yet inflicted harsh punishments on his men for minor infractions. Apart from the lowering of morale occasioned by Schultz's strict and unfair discipline, the crew had frequent occasion to grumble over his tactical shortcomings. Believing it his destiny to become a second Prien, Schultz apparently commanded his boat with extreme recklessness. The survivor stated that during the boat's trials Schultz was inclined to remain on the surface during simulated aircraft attacks, firing at the planes until he would suddenly dive his boat without warning, leaving the men on deck to swim about until he could surface and pick them up.

Schultz's vanity is illustrated by the survivor's account of his commanding officer's unwillingness to use the regular ferry service while *U-512* was frozen in at Stettin. Schultz instead would have himself rowed about in the U-boat's rubber lifeboat. On one occasion, having imbibed heavily, he ordered the rubber boat made ready so that he could go ashore, but the responsible ratings protested. Schultz insisted and went over the side to find the rubber boat reposing on the ice.

Wolfgang Schultz was of the 1930 naval term. A qualified gunnery, coast artillery, and range-finding officer, he served in surface ships before coming to the U-boat arm. In 1937 he is known to have been in the *Karlsruhe* and in 1938 in the *Gneisenau*. *U-512* is believed to have been his first command.

No details were learned concerning the other officers of *U-512*. The Engineer Officer was Oberleutnant (Ing.) Hermann Müller. His name is not listed in the G. N. L. The Executive Officer was Oberleutnant zur See Helmut Gregersen. He was of the October 1937 term and had a wife living in Hamburg. The Second Officer was Leutnant zur See Hermann Klingholz, who is also not listed in the G. N. L.

In addition to the normal officer complement of four, *U-512* was carrying two midshipmen officer-candidates, Fähnriche Koch and Korn, on the fatal cruise.

Schultze's boat was known throughout the U-boat arm as a hell-ship. The survivor stated that just before *U-512* left on her first war cruise the quartermaster came to Schultze and reported that he had contracted a venereal disease. Schultze ordered him off the boat and to a hospital, and the quartermaster, on departing, expressed his happiness at leaving *U-512*, even if the only alternative was hospitalization.

The crew was said to include three Poles who had been drafted into the U-boat service. Their presence added to the disciplinary problems, as they were under strict supervision and evidently had a rough time of it. On the whole, the morale on board *U-512* seems to have been bad.

The crew list as remembered by the survivor is given in the Annex. It includes 13 petty officers and 30 men. If the survivor remembers the grades correctly, it is remarkable for its large number of low ratings.

### Chapter III. EARLY HISTORY OF U-512

The dates of the laying down and the launching of *U-512* could not be ascertained. The sole survivor joined the boat about November 11, 1941, as she lay alongside the dock at the Deutsche Werft, Finkenwerde, Hamburg, for fitting out.

*U-512* was commissioned on November 23, 1941. The ceremony was attended by Konteradmiral Schaltze, the father of *U-512*'s commanding officer. The workers of the Deutsche Werft presented the boat with an electric coffee machine and a mixing bowl as part of the ceremony.

On December 27, 1941, *U-512* left Hamburg for Kiel to begin her trials. Little did the crew realize what lay ahead of them before they would be ready for their first war cruise. Passing through the Kaiser Wilhelm Canal, *U-512* reached Kiel on December 29. After undergoing pressure test and dock trials (see Chapter VII), she left Kiel on January 10, 1942, for the eastern Baltic to begin her operational and tactical trials. She proceeded to Rönne via Swinemünde, holding gun practice off Swinemünde during one day.

*U-512* began her silent running trials off Rönne on January 14. On January 17 the U-boat dived at too steep an angle, and in the attempt to prevent her from hitting the bottom the boat was pulled out of the dive at an equally steep upward angle. This caused the stern to hit bottom, damaging the starboard propeller. *U-512* thereupon limped into Stettin for repairs, which were carried out at the Oderwerke, a yard which was to become well known to all hands.

*U-512* came out of drydock on January 28, 1942, and on the 30th she received a message from Admiral Dönitz ordering her to allow herself to be frozen in. There followed a long period during which she was comparatively safe from the perils of the deep, and it was not until April 10, 1942, that she left Stettin to resume her trials.

At this time *U-512* proceeded to Gotenhafen for surface torpedo trials under the Torpedo Testing Command (T. E. K.). These trials began on April 14 and ended on April 17. They passed off without incident, and *U-512* proceeded to Hela for a 10-day period of training under simulated emergency conditions known as the "Agrufont," which tests officers and men in nerve and damage control. This period extended from April 21 through May 1. During one exercise the U-boat plunged out of control and panic reigned until Kapitänleutnant (Ing.) Gerhard Suhren took command and put matters



straight. (*O. N. I. Note.*—Gerhard Suhren, an engineer officer holder of the Knight's insignia of the Iron Cross, is the brother of the outstanding U-boat commander Kapitänleutnant Reinhard (Teddy) Suhren.)

During this period the Diesel exhaust valves developed leaks which called for a return to the Oderwerke in Stettin, where old friendships were renewed. Upon completion of the minor repairs involved, *U-512* resumed her trials—and tribulations. She left Stettin on May 13, 1942, for her final acceptance trials (U. A. K.), proceeding first to Swinemünde for gunnery exercises lasting 2 days. The next port of call was Danzig, where 10 days of submerged torpedo trials (Kommandantenschüssen) were scheduled, beginning about May 20.

On the third or fourth day, however, bad luck again overtook the boat. While on the surface *U-512* was rammed by another U-boat. The free flooding section of the bow was substantially wrecked, and the No. 3 bow torpedo tube and starboard bow hydroplane were badly damaged. Again course was set for Stettin and *U-512* found her familiar berth in the drydock at the Oderwerke. Repairs were combined with overhaul, and it was not until July 8 that *U-512* was once more ready for sea. During this period the crew were given staggered leaves of 2 weeks.

On July 11, 1942, *U-512* sailed for Danzig for final tactical exercises and mock convoy attacks. These lasted 14 days. A part of the exercises consisted in practicing taking over oil from a supply U-boat of 1,600 tons. Actually, only water was transferred.

Upon completion of these exercises *U-512* was provisioned and outfitted for sea at the Schichauwerft in Danzig, where she had been based. In attempting to leave the pier she was again overtaken by misfortune. With engines going halfspeed astern the order was given to "stop", followed by "half ahead both". As this brought no result, "full ahead both" was ordered. But apparently the clutches would not engage, and *U-512*, carrying considerable sternway, rammed a small Baltic freighter tied up at an adjacent pier. The vessel is stated to have been the 204-ton *Morgenrot*. The impact punched a hole in her side and caused her to capsiz in such a manner that her mast tore off a section of *U-512*'s conning tower fairing.

This damage necessitated yet another return to the Oderwerke, the U-boat arriving in Stettin about the end of July for her last visit. Repairs were soon completed and she left Stettin for Kiel on August 7. At Kiel she took on her full complement of torpedoes and was dewatered, and finally *U-512* was ready to try her strength against the enemy.

## Chapter IV. FIRST AND LAST WAR CRUISE OF U-512

U-512 left Kiel on August 11, 1942, in company with another 750-ton U-boat. The two boats were preceded by a minesweeper which stayed with them for some little time. U-512 went first to Rönne, where she spent one more day in final listening tests. She then proceeded through the Kattegat to Kristiansand, where she rejoined her companion U-boat and topped up with oil and fresh water.

The departure from Kristiansand took place on August 15, 1942, and course was set for the Atlantic by way of the passage between Iceland and the Faeroes. U-512 passed through the "Rosengarten" there by daylight, on the surface, encountering another 750-ton U-boat in the area. Course was then shaped southward, and it was stated that the boat passed so close to the Azores that the cliffs of one of the islands could be seen. It was in this vicinity that U-512 heard her first depth charges, on about September 1. The survivor was convinced that these were not intended for his boat, as they were heard at some distance. He believed that there may have been another U-boat in the vicinity, and from remarks of his officers gained the impression that the attacking vessel was a British destroyer.

The next incident of note occurred upon their arrival in a nebulous location in the Sargasso Sea, still early in September. U-512 was surprised on the surface by an airplane which was so close that the U-boat decided to remain on the surface. The 2 cm. antiaircraft gun was manned and fire was directed at the attacking plane. The gun jammed on the second shot. The fire was returned by the machine guns of the plane, and the gun crew on the U-boat took cover. Schultze was slightly wounded when he was grazed by a flying splinter. Attempts to clear the gun were futile. Two bombs were dropped, but they fell an estimated 30 meters (98 feet) astern. The explosions put both the Junkers and the electric air compressors out of action. (*O. N. I. Note.*—It is possible that some connections at these machines were ruptured as the survivor speaks of welding being necessary to effect repairs.) The U-boat submerged after the bombs were dropped and no further attack ensued.

About the 8th of September a large two-funneled freighter traveling alone was sighted. Its size was estimated at 12,000 tons. Schultze maneuvered into position and fired two torpedoes while submerged. It was still daylight and probably late afternoon. Neither of these

shots took effect. Schultze decided to wait until darkness to renew the attack. After dark he surfaced and approached to within 1,000 meters (1,094 yards) and again fired two torpedoes. No hits were scored but the freighter had become aware of their presence. The freighter fired flares and, increasing her speed, made good her escape. The prisoner stated that it was definitely established in the light of the flares that this vessel was equipped with torpedo nets, and he described the rigged-out booms over which the net was hung. Schultze's earlier suspicions were thus confirmed, and he regretted that he had not fired from astern at the freighter's propellers. It was stated that the freighter offered no counterattack, relying on her speed and the darkness to escape.

Some time thereafter, a tanker traveling alone was attacked at night. Two torpedoes were fired, both of which missed. The vessel was then attacked by gunfire. The submarine first took up a position dead ahead of the tanker and subsequently veered off to starboard as the tanker began to overhaul her. When the tanker was still somewhat abaft the U-boat's beam, fire was opened with all three guns. The 10.5 cm. fired H. E., the 3.7 cm. fired incendiary, and the 2 cm. bridge gun fired A. P. mixed with tracer. The first shell is stated to have hit the bridge, and all subsequent shots were direct hits. The range was estimated at under 300 meters by the survivor. After a short interval, fire was returned from the tanker's after gun and some machine-gun fire was also observed. The first shell from the tanker was a miss astern and subsequent shots were all far over the target. No casualties resulted on the submarine.

The tanker began to burn shortly after the attack and was abandoned in about 10 minutes. The U-boat then rounded the stern and fired a few shells into the port side, leaving the vessel on fire and sinking. (*O. N. I. Note.*—This was probably the S. S. *Patrick J. Hurley*, U. S. tanker, 10,865 G. T., sunk after attack on the 12th of September at 2335 in 25°59' N., 46°15' W. The *Hurley* was sunk by gunfire from a surfaced submarine.) After the sinking Schultze is alleged to have reported home that he had sunk a tanker of 7,500 tons. He received a return message from the Admiral in Command of U-boats which read roughly as follows: "The ship you sank was not 7,500 but 10,680 tons. It was the *Herley Patrick*" [sic]. This caused great satisfaction and a victory pennant was prepared showing this tonnage.

This was the U-boat's first and last success. She sighted at least two other freighters, one shortly before the victory described above, and one about 14 days after it. Both were traveling through the night with all lights showing. *U-512* stopped them, only to ascertain that both were Spanish. The captain and two men from the first vessel even came aboard the U-boat for questioning. Both vessels were allowed to proceed. Shortly thereafter, however, word was

received from the Admiral in Command of U-boats that the registry of the first was correct, but that *U-512* had been taken by ruse by the second, which was in reality an enemy vessel.

The prisoner referred to one further incident on this cruise, the meeting of *U-512* with a supply U-boat about 2 weeks out of Kristiansand. The only details he could give were that oil was taken over, and that the Commanding Officer of the supply U-boat was an Oberleutnant older than the average. Later information reveals that Schultze's wife received a letter from her husband written on September 3, while en route. It seems safe to conclude that Schultze posted the letter on the supply U-boat, and that the meeting therefore took place on September 3, 1942.



## Chapter V. SINKING OF U-512

*U-512* was surprised on the surface at 1150 GMT on October 2, 1942, by a B-18A plane of the 99th Bombing Squadron, in position 05°50' N, 52°25' W. According to her report, the plane sighted the U-boat on course 120° from a distance of 15 miles, and attacked from dead ahead at 156 knots with two Mark XVII's and two Mark XXIX's dropped from a height of 50 feet. The first drop was 40 feet short and the rest were in train over the U-boat. Oil and bubbles appeared immediately and lasted for 30 minutes. Oil and air spouted from the surface in large quantities for the first 3 minutes. After 3 hours there was an oil slick of 6 miles. One man was seen to rise to the surface shortly after the attack, and a raft was dropped to him. He succeeded in reaching it, and he was rescued 10 days later. He is the only person fortunate enough to have escaped from *U-512*.

This sole survivor's account of the sinking follows. Shortly before the appearance of the aircraft he had ascended to the bridge for a smoke. There came a sudden cry of "Airplane dead ahead!" A crash dive was immediately ordered and the men on the bridge, now totalling five, tumbled below. Survivor went forward to his diving station which was at the valves in the galley. Almost immediately, and before the submarine was fully submerged, two direct hits were scored on the boat. They are stated to have struck between the 10.5 cm. gun and the galley.

The force of the explosion flung survivor diagonally across the boat. He was injured upon hitting the opposite wall, wounding himself on the side from the hips down. At the same time a caldron of soup which was flung into the air landed on his head and caused slight burns. All illumination was extinguished except the emergency lights, which burned throughout.

Water immediately rushed into the boat and survivor donned his escape lung only to find it useless, as there was no air in the flask. The boat settled rapidly. Survivor states that all tanks were blown and the boat's descent was checked momentarily, only to continue almost at once. The U-boat sank by the bow, which hit the bottom with an appreciable jar. The stern then also settled onto the bottom. The boat then came to rest almost level and with little or no list. The depth shown on the torpedo room depth gauge was 42 meters (137 feet). The watertight bulkhead door to the bow torpedo compartment had been closed and as the water rose survivor worked his



way forward and beat upon it with a fire extinguisher. It was opened to receive him. One emergency light illuminated the room which now contained 15 men.

Development of chlorine gas commenced at once and men began to cough. (It was stated that the chlorine gas was produced from the batteries of electric torpedoes—not the main batteries.) Because of an unfortunate circumstance there were only four escape lungs in the compartment. A short time previously it had been discovered that the escape lungs had been improperly stowed and that the majority had become wet from the condensation in the boat. They had consequently been taken aft to the engine room to be dried out.

Three of the men donned their lungs in the hope that they would act as gas masks. Survivor had possessed himself of the fourth. The air pressure in the compartment began to mount and speech became very difficult. An attempt was made to communicate with other compartments in the boat. One man rang the telephone to the after compartment but collapsed before the call was completed. Survivor picked up the dangling instrument and gave the crank another twist. He states that the after compartment replied with the simple statement "After compartment flooded," and all communication ceased.

Men were now beginning to collapse rapidly from the combined effects of chlorine and high pressure. Some were bleeding at the mouth and ears. Survivor and a boatswain's mate decided to attempt to open the torpedo loading hatch rather than die from gas. The torpedo hatch was secured with a strongback as well as being dogged shut. Standing at the top of the folding ladder they finally released the strongback and started to open the hatch. Since the loading hatch is at an angle there is no skirt at the bottom to facilitate escape. As the water rushed in, the two men became wedged in the opening and a struggle resulted. Survivor states that he gave precedence to the boatswain's mate, who had no lung. At any rate the mate was the first man out. It appears that he confused his direction and swam horizontally, only to lose himself between the hull and the superstructure.

Survivor followed and after a short struggle succeeded in raising the grating over the torpedo loading hatch. He rose to the surface to find that his lung was beginning to burn his mouth. He thereupon discarded it, preferring to swim without it.

After a period estimated by the prisoner to be 1½ hours, an inflated life-jacket was dropped to him from the airplane. This was followed by a rubber raft, outfitted with water, a signal pistol, paddles, and some 200 feet of line.

This raft was his home for the next 10 days. His wounds began to fester, and the tropical sun added to his discomfort. The cartridges of

his Very pistol were soon used up in a vain attempt to signal passing aircraft and a tanker. In order to escape the heat he would spend a portion of each day in the water. Lashing the empty CO<sub>2</sub> flash of the rubber boat and the now useless signal pistol together he fashioned himself a descending line. He claims that by this means he descended occasionally to depths where the water was a bit cooler. While there were sharks in the neighborhood his lot was already so unhappy that he was not much perturbed by their presence. He contented himself with giving one an occasional jab with a paddle as it came to investigate the raft.

At one point he sighted a tanker on a zigzag course which bade fair to bring it near to him. However, the next alteration of course took it further away. Some time previously one of his two paddles had been carried overboard by a tropical squall. He had arranged it as a signal spar for a piece of rag. As the one paddle would not propel him satisfactorily, he tied the line to himself and swam madly in pursuit of the ship, towing the rubber boat behind him.

Toward the end of his stay on the raft he was attacked by birds which pecked him on the shoulders so violently as to leave permanent scars. He managed to secure two of these which he split and dried in the sun. As his provisions had run low he ate them, afterwards complaining slightly of their fishy taste.

On the 12th of October survivor was rescued by the United States Destroyer *Ellis* in position 07°50' N., 56°05' W. The *Ellis* was on patrol and it was not until October 30 that the prisoner was landed in Trinidad, B. W. I. His strong constitution together with the medical care given him on board the *Ellis* had caused a quick and full recovery of his health. He reached this country by air on the 3d of November 1942.

## Chapter VI. DETAILS OF U-512

### **Type.**

*U-512* was a 750-ton boat, type IX-C, built by Deutsche Werft, Finkenwerder, Hamburg. Her yard hull number was 308 (or possibly 307). She belonged to the 5th Flotilla based on Kiel and was to be assigned to the 2d Flotilla at Lorient after her first cruise.

### **Diesels.**

The Diesels were stated to have been M. A. N. of 2,100 horsepower each. At utmost speed (3 x A. K.) they turned up 475 revolutions per minute.

### **Electric motors.**

It was stated that the electric motors were built by Siemens.

### **Device.**

*U-512* had two black oak leaves on the starboard side of her conning tower.

### **R. D. F.**

Not fitted.

### **S. B. T.**

Not fitted.

### **Field post number.**

47986.

### **Armament.**

The armament of *U-512* consisted of one 10.5 cm. gun on deck forward, one 3.7 cm. gun on deck aft, and a 2 cm. antiaircraft gun on the open conning tower bridge. There were four bow torpedo tubes and two stern tubes.

### **Ammunition.**

Thirty-six rounds of ammunition were kept in the ready use locker for the 10.5 cm. gun. Seventy-two rounds for the 3.7 cm. gun were carried in watertight lockers on the bridge.

### **Magazines.**

*U-512* had two magazines. One was located directly beneath the conning tower under the center of the control room. The other was situated on the port side forward, just forward of the officers' quarters and beneath the galley hatch. Ammunition was not, however, passed

up through the galley hatch but had to be passed through the boat and up the conning tower.

#### **Torpedoes.**

*U-512* carried 14 electric torpedoes in the boat and 4 air in upper deck containers. Two upper deck containers were empty. The greatest gyro angle set on the torpedoes during the submerged torpedo trials was 45°. It was stated that the straight run before the angle takes effect was 200 meters.

The prisoner stated that torpedoes had on occasion been caught in nets and claimed that this had been confirmed by listening to the propeller noises of the torpedoes. The propellers were said to have run normally until reaching the target and then to have slowed when the torpedo was caught. The prisoner claimed that this happened in both attacks during the final cruise, and that the presence of nets was confirmed by visual observation. (*O. N. I. Note.*—It has been established that the *Patrick J. Hurley* was not fitted with nets.)

#### **Pressure hull.**

The thickness of the pressure hull was stated to be 18 mm. (.709 inches).

#### **Ribs.**

The spacing of ribs was stated to be 60 cm. (23.62 inches) on centers.

#### **Hatches.**

*U-512* had five deck hatches. From aft they were: after torpedo loading hatch, Diesel room hatch, conning tower hatch, galley hatch, forward torpedo loading hatch. The Diesel room, lower conning tower, and galley hatches were fitted with skirts, so that all of these could be used as underwater escape hatches.

#### **Drainage slits.**

It was stated that each yard installs a different number of the diagonal drainage slits on the bow section of its 750-ton U-boats, in order to identify the yard at which the boat is built. The numbers were given as follows:

- 8 slits—Deschimag, Wesermünde
- 10 slits—Deutsche Werft, Finkenwerder—(*U-512*)
- 12 slits—Deschimag, Bremen.

#### **Clutches.**

*U-512* was stated to have had trouble with her clutches. One clutch failure resulted in the accidental sinking of the 204-ton supply ship previously noted. It was stated that slipping of the clutches also occurred on the war cruise.

**Bilge pumps.**

The main bilge pump was situated on the starboard side of the control room and the auxiliary bilge pump on the portside. It was stated that both of these pumps were made of a light metal and were used only to pump the main bilges.

**Fresh-water distilling unit.**

The fresh-water distilling apparatus was stated to have a capacity of 8 liters (1.76 gallons) per hour.

The fresh-water tank capacity is stated to be 2,600 liters (572 gallons).

**Paint.**

*U-512* was painted the conventional light gray. Wide use was made of luminous paint not only for bulkheads but for breeches of torpedo tubes, main piping, etc.



## Chapter VII. GENERAL REMARKS ON U-BOATS

### Pressure tests.

It was stated that every U-boat must undergo a pressure test in the pressure dock in Kiel. The following test is stated to have been carried out on *U-512*.

The submarine is placed in an enclosed dock. She is manned by about one quarter of her regular complement. In addition there are technical experts and workmen aboard. Lock gates at each end are closed and the boat is submerged until her conning tower is under water. The remainder of the dock is then pumped full of water, and pressure is applied hydraulically.

The maximum pressure applied is stated to be equivalent to 200 meters (656 feet) depth. (*O. N. I. Note.*—It is believed that pressure during test does not exceed 90 meters (295 feet)). When approaching and reaching this pressure absolute silence is maintained in the boat. The technicians listen for the hiss of water which may penetrate through glands and exterior connections. It is stated that minor leaks of this nature invariably occur. The ribs of the boat at this pressure have begun to creak, and an occasional patch of paint is flaked off. Woodwork creaks in sympathy, and it is stated that the general chorus is distinctly trying to the nerves.

The extreme pressure is stated to have been maintained on *U-512* for over an hour while all glands and fittings were checked. Repairs to minor leaks were made on the spot.

Throughout the test communication is maintained with the dock operators. This is handled by a radio man, but whether by underwater telephone or through the oscillator is not clear.

### Folding mast.

Prisoner stated that he had twice seen a 750-ton U-boat equipped with a folding mast, at Gotenhafen and at Stettin. This mast was stated to be hinged directly aft of the conning tower bridge and to be capable of being operated from the conning tower. It was alleged that this mast serves as lookout platform and that when vertical it is  $1\frac{1}{2}$  times as high as the extended periscope. The mast is fitted with rungs for the use of the lookout. In case of alarm the lookout descends directly onto the open bridge and thence down the conning tower hatch. The mast can then be lowered parallel with the after deck after the U-boat has submerged.

**Anti-net torpedo.**

The torpedo research staff was said to be working on an anti-net torpedo. The prisoner did not know whether this was to be a cutting device or an auxiliary explosive.

**Torpedo firing.**

In firing a "fan salvo" (Fächerschuss) of torpedoes, each torpedo was said to be fired with a 4-second delay and  $1\frac{1}{2}^{\circ}$  gyro-angle step.

**Deperming.**

Deperming takes place in Kiel. It was stated that the submarine enters a dock with a domed concrete roof and that the process takes 4 to 5 hours.

**Cruising routine.**

Standard cruising routine on a voyage to America has been honored with the nickname "Amerikaschaltung." This was stated to be cruising with one Diesel at slow speed (Kleine Fahrt) and one electric motor at half speed (Halbe Fahrt).

**Binoculars.**

The binoculars mounted on the night firing stand are pressure-proof and may be left in place on submerging. The same binoculars are used under all night conditions. Changes are made by using different lenses and shades.

**Sun glasses.**

Lookouts' sun glasses are usually dark green. Sun glasses with red lenses recovered in American waters were thought to be for use in foggy weather.

**Escape practice.**

Practice with the escape lung is carried out at Gotenhafen during a period of 14 days. Each man has six or seven exercises, the seventh being carried out only by the most expert. Escape practice is carried out in a tank called a "Tauchtopf". The seven stages of training are listed below:

1. The student dons his escape lung and descends a ladder to the bottom, a depth of 7 meters, and then ascends to the surface. He has a line attached to allay any nervousness.
2. Students are weighted and descend to the same depth and surface twice. At this stage and succeeding stages no line is attached, nor any guideline used.
3. The third exercise is similar to the above with the exception that the student must remain on the bottom for some time, practicing regular breathing. Time consumed from submergence to surfacing is stated to be about 15 minutes.

4. At this stage students enter a lock built to resemble a U-boat compartment. This is at a depth of 11 meters. The lungs are then adjusted and the compartment is flooded. Escape is made through the hatch. The hatch is fitted with an extension skirt as in a real U-boat.

5. Exercise No. 5 is similar to No. 4 except that emergency conditions are simulated. Lungs are not put on until the alarm is sounded and water rushes in.

6. In this exercise escape is again made from the chamber. The ascent is made very slowly by regulating the amount of air admitted to the lung. Upon reaching the surface the student again submerges and is required to empty his air flask completely before he reaches the surface.

7. Escape is made by the most expert without use of the lung.

#### **Escape devices.**

1. Air flasks in escape lungs are filled to a pressure of 150 kilograms per square centimeter (440 pounds per square inch).

2. It is stated that the purifying cartridge is designed to last 45 minutes. Its exhaustion is signalled by its getting very warm.

3. Lungs are carried for each man, with approximately 6 spares. Lungs are stowed at each man's diving station.

4. The following hatches are fitted with an extension skirt in a 750-ton U-boat in order to serve as escape hatches: Diesel room hatch, lower conning tower hatch, and galley hatch.

## Annex. CREW LIST OF U-512

Name	Rank	U. S. N. equivalent
Schultze, Wolfgang	Kapitänleutnant	Lieutenant.
Müller, Hermann	Oberleutnant (Ing.)	Lieutenant (j. g.) Eng. duties only.
Gregersen, Helmut	Oberleutnant z. S.	Lieutenant (j. g.).
Klingholz, Hermann	Leutnant z. S.	Ensign.
Koch, Paul	Fähnrich	Midshipman.
Korn, Siegfried	Fähnrich	Midshipman.
Hoffmann, Walter	Obersteuermann	Warrant quartermaster.
Helbel, Karl	Obermaschinist	Warrant machinist.
Tiehle, Herbert	Obermaschinist	Warrant machinist.
Sawka, Harry	Bootsmaat	Coxswain.
Jensch, Erich	Bootsmaat	Coxswain.
Amannt, Adolf	Funkmaat	Radioman, 3cl.
Schöniger, Wolfgang	Funkmaat	Radioman, 3cl.
Lilienthal, Herbert	Maschinenmaat	Fireman, 1cl.
Fleissner, Werner	Maschinenmaat	Fireman, 1cl.
Müller, Richard	Maschinenmaat	Fireman, 1cl.
Kämpf, Wilhelm	Maschinenmaat	Fireman, 1cl.
Nemetz, Kurt	Maschinenmaat	Fireman, 1cl.
Gertung, Werner	Maschinenmaat	Fireman, 1cl.
Loch, Gerhart	Matrosenobergefreiter	Seaman, 1cl.
Freiland, Helmut	Matrosenobergefreiter	Seaman, 1cl.
Unkoff, Stephan	Mechanikobergefreiter	Seaman, 1cl.
Sennwald, Heinz	Mechanikmaat	Torpedoman's mate, 3cl.
Lupack, Günther	Matrosengefreiter	Seaman, 2cl.
Ostermann, Walter	Matrosengefreiter	Seaman, 2cl.
Panknin, Willi	Matrosengefreiter	Seaman, 2cl.
Losnenski, Heinz	Matrosengefreiter	Seaman, 2cl.
Rolling, Heinz	Matrosengefreiter	Seaman, 2cl.
Michalke, Günther	Matrosengefreiter	Seaman, 2cl.
Jackob, Hans	Funkgefreiter	Seaman, 2cl.
Klaus, Hans	Funkgefreiter	Seaman, 2cl.
Piska, Kurt	Mechanikergefreiter	Seaman, 2cl.
Siebert, Alfred	Mechanikergefreiter	Seaman, 2cl.
Plümer, Albert	Maschinengefreiter	Fireman, 3cl.
Frenzen, Heinz	Maschinengefreiter	Fireman, 3cl.
Sauvage, Edward	Maschinengefreiter	Fireman, 3cl.
Preuss, Emil	Maschinengefreiter	Fireman, 3cl.
Helbich, Rudi	Maschinengefreiter	Fireman, 3cl.
Lehner, Günther	Maschinengefreiter	Fireman, 3cl.
Erbel, Adolf	Maschinengefreiter	Fireman, 3cl.
Siner, Hans	Maschinengefreiter	Fireman, 3cl.
Schneider, Karl	Maschinengefreiter	Fireman, 3cl.
Blüme, Heinz	Maschinengefreiter	Fireman, 3cl.
Glass, Karl	Maschinengefreiter	Fireman, 3cl.
Kapps, Adolf	Maschinengefreiter	Fireman, 3cl.
Felsenkeller, Erwin	Maschinengefreiter	Fireman, 3cl.
Sender, Alfred	Maschinengefreiter	Fireman, 3cl.
Machon, Franz	Matrose	Apprentice seaman.
Plesterniks, Paul	Matrose	Apprentice seaman.