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INTERROGATION OF SURVIVORS
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POST MORTEMS ON ENEMY SUBMARINES



DIVISION OF NAVAL INTELLIGENCE

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NAVY DEPARTMENT
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON

SERIAL 8

REPORT ON THE
INTERROGATION OF SURVIVORS FROM
U-164
SUNK ON JANUARY 6, 1943



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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—consists 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-164 was discovered on the surface and attacked by a United States PBY plane at noon on January 6, 1943, about 65 miles from the northeast coast of Brazil, in position 01:58 S., 39:23 W. In addition to the bridge watch, two men, a coswain and a seaman 2 cl., were on deck, bathing. These two men found the conning tower hatch closed against them when they reached it, and they were blown off the bridge into the water by the explosion of the aircraft's bombs. Both succeeded in climbing aboard a rubber life raft that was dropped by the plane. This raft was their home for the next 7 days. After an adventurous journey they finally succeeded in reaching a small native settlement on the coast of Brazil. They were kindly treated and well cared for, and after a few days they were sent on to Sao Luiz and delivered to the police. By the courtesy of the Brazilian Government the prisoners were then turned over to the United States Navy. They were taken to Natal, and were soon brought to this country for interrogation.

This report is based on the statements of these two men, a coxswain and a seaman, and is limited by that fact. The prisoners eventually became cooperative and yielded a considerable amount of information to the interrogators.

Chapter II. CREW OF U-164

The information concerning the crew of U-164 is limited to what could be furnished by the two survivors, who seemed willing to give what they knew, though it was meager in spots.

U-164 seems to have been carrying 55 men on her second cruise. Her complement numbered 51, and there were four supernumeraries, namely one student commander, one doctor, and two midshipmen. The officers were the following:

Commanding officer.—Korvettenkapitän ¹ Otto Fechner of the 1924 naval term. He was stated to be due for promotion to Fregattenkapitän (Commander). His age was given as 36.

Executive officer.—Oberleutnant zur See Werner Schopper, of the 1937 (B) naval term. He was said formerly to have commanded a patrol vessel, to have been a "prima Offizier," and to have been very popular on board.

Second officer.—Leutnant zur See Freiherr von Ramberg, said to have been about 23 years old and to have been a midshipman at the outbreak of the war.

Engineer officer.—Oberleutnant (Ing.) Hellmut Arlt, of the 1936 naval term. He had been in the navy for 16 years and had come up from the lower deck, according to one prisoner. He was said to be due for promotion.

Student Commander.—Kapitänleutnant Hissen, of the 1934 naval term, said to be about 30 years old.

Surgeon.—Oberassistentzarzt Maler or Mahler.

Midshipmen.—Fähnriche Heuen and Molwo. The latter's nickname was "Molotov." One was an engineer, and the other a line midshipman. They were in training and were said to have performed various duties such as working on charts, standing watch as lookouts, and relieving the coxswains. Fähnrich zur See Zech made the first cruise of U-164 in the same capacity.

The crew consisted of 47 men, among whom there were said to be one extra fireman and one extra seaman. Six new members had come aboard at Lorient for the second cruise. There were 16 petty officers, including two warrant machinists, one warrant quartermaster, seven machinist's mates, three coxswains, one torpedoman's mate, and two radiomen. The crew list as it was remembered by the prisoners is given in the Annex.

¹ For translations of the ranks and grades in U-164 see the Annex.

The two prisoners offered little to distinguish them from the average run. The more interesting one, the petty officer, entered the Navy in April 1939, and was assigned to the 12th Ship's Manning Division at Braake (Oldenburg). This training lasted 7 months, after which he was sent to Wilhelmshaven for instruction in signaling, Morse code, etc. Here he lived aboard the depot ship *Medusa*. Early in 1940 he was assigned to the torpedo boat, *T-11*, under the command of an officer named Hoffmann, on which he served for some months. *T-11* put out from Kiel and operated successively out of Frederikshaven, Denmark, and Wilhelmshaven. Then in August she proceeded to Cherbourg, making the trip through the Channel in 1 day. During the week the prisoner was in Cherbourg the city was bombed, and he was wounded aboard the boat. As a result he was transferred to a hospital at Leer, Ostfriesland, and subsequently received a wound stripe. After two weeks in the hospital he joined the 8th Ship's Manning Division at Leer in which he helped with the training of recruits. This was chiefly infantry training except for an hour a day of seamanship, and the trainees wore naval uniform on Sundays only. On April 1, 1941, he was sent to the Petty officer's school at Glückstadt for 8 weeks and then was drafted, much against his will, to the U-boat school at Pillau, where he remained about 2 months. A period of 3 to 4 weeks in the Replacement Company at Neustadt followed before he reported, about the middle of September, at Wesermünde to stand by for the final construction of *U-164*. The prisoner had been awarded the U-boat badge and the Iron Cross, IIInd Class, but he displayed a remarkable lack of interest in U-boats and their operation, being true to his first love, the torpedo boat.

The second prisoner is a seaman 2 cl. He joined the Navy in January 1941. His 6 weeks of basic training was done at Stralsund. He was then assigned to a replacement company at Flensburg, and from there he was drafted to the U-boat school at Pillau. His stay there was interrupted by a 6 weeks' gunnery course at Swinemünde, which he failed to complete successfully. He was therefore sent back to Pillau, and at the end of his training there he once more went into a replacement company at Flensburg. From there he was assigned to *U-164*. Together with several other members of the crew, he joined his U-boat in September as she lay at the dock in Wesermünde. Upon *U-164*'s return from her first war cruise, the prisoner was awarded the U-boat badge.

Chapter III. EARLY HISTORY OF U-164

U-164, a 750-ton boat of the series commencing with *U-161*, was built at the Deschimag-Seebeck yard at Wesermünde. It is not known when she was laid down or launched, but by mid-September some of her ship's company had already been drafted to stand by during the final stages of construction, and on November 29, nearly 3 months after *U-162*, she was commissioned in the presence of a veteran petty officer who had served in another *U-164* during the last war. Owing to the absence of any diaries or other written evidence, and the understandable inability of the two survivors to remember exact dates, the chronology of this chapter is necessarily vague, but it is believed that it has been reconstructed with reasonable accuracy.

About December 11 *U-164* arrived in Kiel for her first trials, but it had been discovered on the way from Wesermünde that there were serious defects in the Diesels and she proceeded almost immediately to the Deutsche Werke yards where her engines received a thorough overhaul. The general opinion on board was that sand had been mixed with the oil supplied at Wesermünde with the result that the pistons had seized, but certain officers who were appointed to investigate this allegation decided that it was unfounded. Nevertheless the prisoners stated that sand had also been found in the oil supplied to other U-boats in this yard and that slogans such as "Sabotiert die U-boote" ("Sabotage the U-boats") were to be seen scrawled on the walls of the buildings.

Repairs to the Diesels lasted a considerable time, and a further delay was caused by the ice which blocked all the Baltic ports during the winter of 1941-42. The removable part of the hull over the engines was not lifted, although the Diesels had to be stripped; one prisoner gave as the reason, that this could not be done more than twice without endangering the stability of the pressure hull; it does not appear to have been done later in Lorient either when further extensive repairs were undertaken on the Diesels.

It was probably not until the beginning of April that she went through the usual UAK (U-boat Acceptance Command) trials. These were performed without further incidents and soon after April 21 she left Kiel for the Baltic ports. While in Kiel she bore on her conning

tower, as yard sign, a black ace of spades with one black horizontal bar beneath it. At all times until she sailed on her first patrol she belonged to the 5th Flotilla which is based on Kiel.

The remainder of her trials and working up proceeded smoothly in the usual sequence. After a few days under the TEK (Torpedo Trials Command) in Gotenhafen and a visit of 1 day to Danzig where she lay in the Old Harbor, *U-164* proceeded to Pillau for about 1 week's torpedo firing exercises. When this was completed she arrived in Hela about the beginning of May and spent some 10 days with the *Agrufront*, during which time she went to sea almost daily; on occasions Kapitänleutnant (Ing.) Gerd Suhren came on board and the training was principally concerned with the operation of the electrical circuits under difficult circumstances such as might be expected in an emergency at sea.

When the *Agrufront* trials were over she received the Frontreif ("ready for war") badge and after a stay of 3 or 4 days in Danzig left in the middle of May for Gotenhafen which remained her base for about a fortnight while she made an extended trial patrol in the Baltic; this included the usual operational training with mock convoys and aircraft attacks. On completing her working up she proceeded to Rönne for silent running tests and thence to Stettin where she remained for 3 days, being moored near the SS. *Usambara*. She left Stettin about June 1 and on her way out, while in the vicinity of the seaplane base at Swinemünde, she ran aground owing to the faulty navigation of a train-ferry which passed on the wrong side of the channel; by blowing her forward tanks however and going astern on both engines she succeeded in getting off within 15 minutes. She called for a few minutes at Swinemünde to pick up the engineer officer who arrived there with his wife from Stettin, stayed 1 day in Kiel, where she lay alongside the *St. Louis*, and proceeded to Wilhelmshaven for final overhaul.

U-164 arrived in Wilhelmshaven about June 5 and remained until about July 14. During this period she lay in the Kriegsmarinewerft yard and is stated to have been the only boat there. She underwent a general overhaul during the course of which her KDB listening gear was removed completely. The ship's company were quartered in small clean wooden barracks on shore. The boat was covered with brown netting to camouflage her from aircraft. There were several air raids while she lay in Wilhelmshaven and both prisoners said that considerable damage was done, but no details were obtainable. The ship's company were sent on leave in two watches.

Torpedoes and dry stores were taken on board in Wilhelmshaven. An air raid started while the last torpedo was still being loaded, but the operation was successfully concluded. On July 14 she left for Kiel, being seen off by an old Korvettenkapitän who appears to have

been in charge locally and who had formed a reception committee of himself and 30 or 40 enlisted men when *U-164* originally arrived in the middle of the night.

She arrived in Kiel on July 15, having bumped a merchant ship in the Kiel Canal on the way. She again lay alongside the *St. Louis*, and, after oiling from a small tanker, took fresh provisions on board. On July 18 she sailed from Kiel on her first war cruise.

Chapter IV. FIRST WAR CRUISE OF U-164

U-164 sailed from Kiel early on the morning of Saturday, July 18, 1942. She was in the company of two 500-ton U-boats, one of which has been identified as *U-210*, in command of Kapitänleutnant Rudolf Lemecke. The other soon left the group, having fouled her propellers on a buoy wire, and put into a small southerly Danish harbor for repairs. *U-164*, together with *U-210*, continued through the Great Belt, the Kattegat, and the Skagerrak, and put into Kristiansand on the evening of Sunday, July 19, 1942. She remained in the harbor only over night, and according to prisoners the crew spent the night aboard. Drinking water was taken on, according to one prisoner.

U-164 left Kristiansand early on the morning of Monday, July 20, 1942, still accompanied by *U-210*, and protected by an escort vessel. She followed the coast of Norway for some distance and then turned west to enter the Atlantic between Iceland and the Faeroes. She passed over the bank there, known to the Germans as the "rose garden," on the surface at half speed ("America speed"), not zig-zagging. Many floating mines were seen, and one was shot at, according to one prisoner's story.

U-164's course can next be traced to a position south of Iceland, where she experienced her first aircraft attack. Prisoners were agreed that the plane was four-motored and that it dropped four bombs which fell about 30 meters away, and one thought it was an American Liberator or Fortress, the other guessed a Sunderland. Time of the attack was stated to be 0740 (German time). Glass on various instruments, including that on the gyro compass, and lamp shades were stated to have been shattered, and fuses blown out. (ONI NOTE: It seems highly likely that this is the incident referred to by a British report of an RAF plane's sighting a German U-boat at 0948 (G. M. T.) on July 23, 1942, in position 61.45 N., 16.18 W.)

U-164 next turns up some distance southeast of Cape Farewell, Greenland, where she had an adventure with a convoy. Prisoners relate that a U-boat which was some distance behind *U-164* radioed her that a convoy was approaching, escorted by destroyers and planes. The two survivors agree that *U-164* remained in the general vicinity of the convoy for several days, but they disagree on whether or not she actually attacked. According to the story of the talker in the torpedo room, she made an attack on a 12,000-ton steamer in the

convoy, from the surface at night, in which the executive officer shot two torpedoes from the after tubes and missed, and was then driven off by an escort vessel. The petty officer stoutly denies this story. Both prisoners were agreed however that about 2 days later *U-164* and the other U-boat, now close behind her, were sighted by destroyers. Both U-boats dived, and a 2-hour depth charge attack followed, apparently meant for the second U-boat. Prisoners were concerned over her fate, especially as her captain had only a week previously received a message from the Admiral in Command of U-boats that his wife had just borne him twins, a boy and a girl. This detail of course identifies the captain in question as Kapitänleutnant Rudolf Lemcke, and his boat as *U-210*, which was sunk on August 6, 1942, in position 54.25 N., 39.37 W. On July 31, *U-210* was subjected to a prolonged depth charge attack while she and several other U-boats were shadowing convoy O. N. 115, bound for Newfoundland. (Cf. O. N. I. 250 G—Serial No. 4.) It is therefore quite likely that during the last days of July *U-164* was in the vicinity of convoy O. N. 115 with *U-210*, as part of a wolf pack gathering there. Prisoners were of the opinion that she was then ordered away from the convoy, though they did not know why.

At any rate, *U-164* now proceeded to her real operational area, the Caribbean. Here she had some small success, prisoners claiming a Dutch ship of 6,000 tons and a small American freighter of 2,000 odd tons. Both were traveling alone, and were attacked by day. Four torpedoes were used to sink the Dutchman. The first two were thought by one prisoner to have failed to explode, by the other to have done possible damage to the propellers of the ship. At any rate, two more torpedoes were sent into her some time later, while she was drifting and listing. The ship has been identified as the *Stad Amsterdam*, Dutch freighter of 3,780 gross tonnage, sunk at 1615 E. W. T. on August 25, 1942, in position 16.42 N., 73.41 W., while en route from New York to Trinidad via Key West. (O. N. I. NOTE: According to the survivor report, survivors from the *Stad Amsterdam* thought the first explosion in their ship, evidently caused by the first shots referred to above, had been caused by a mine.)

The American freighter claimed by *U-164* has not been identified. She is stated to have been sunk some weeks after the Dutchman, to have been en route from Aruba to the United States, to have carried drums of oil on her decks, and to have been manned chiefly by Negroes, one of whom told the U-boat the ship's tonnage in German. The attack is described as having taken place in daylight, after the crew had been given time to abandon ship; one torpedo was fired which hit directly under the bridge and caused the ship to break in two.

U-164 evidently roamed widely in the Caribbean area until about the middle of September. Prisoners report having seen Cuba,

Jamaica, a French island which they thought had been seized by American troops (O. N. I. NOTE: probably Martinique), and having been near Curaçao and, at the end, Trinidad. Several aircraft attacks were experienced, none of which was effective. She finally set out for Lorient about September 15 or 17, 1942.

There is good evidence that *U-164* was twice met by supply U-boats during this cruise. The first meeting was stated to have taken place in the Atlantic, before she entered the Caribbean, about 14 days before the first sinking, i. e., about August 11, 1942. Prisoners reported that 14 tons of fuel oil were taken on, that provisions were transferred in a rubber boat, and that the engineer officer, a coxswain, and a fireman 3 cl. came aboard *U-164*. The supply U-boat was stated to have been under command of an officer named Stiebler. (O. N. I. NOTE: Kapitänleutnant Stiebler is believed to command *U-461*, known to be a supply U-boat.)

The second meeting was described in considerable detail. It took place also in the Atlantic, shortly after *U-164* had left the Caribbean and was homeward-bound, therefore probably just before or about September 20. The supply U-boat was said to have carried a half-moon device on the conning tower. *U-164* signalled her with a lamp. Another U-boat was encountered near the supply U-boat. She had been there about 5 hours, according to the story, and had already been serviced. On leaving she circled *U-164* and blew her horn twice. Her captain was stated to be named Pfeffer. (O. N. I. NOTE: The number of this U-boat is not known.)

U-164 herself was supplied with 35 tons of oil, as well as with water and provisions, among which there were potatoes and canned bread. She was taken in tow by the supply-U-boat, and the transfer of oil took about 2 hours. A doctor also came over to her and attended various members of the crew who were suffering from skin trouble on the arms and legs. He treated one of the prisoners for an infected ear, and several other ratings for injuries received during the cruise.

A final incident of the homeward voyage was an aircraft attack in the Bay of Biscay by a British plane. No damage was sustained. One prisoner stated that this attack brought the total of the bombs aimed at *U-164* during the entire cruise to 28. *U-164* was more fortunate in negotiating the British mines around Lorient than several other boats that arrived about the same time. Prisoners reported that a short time before *U-164* arrived at Lorient, *U-165*, under command of Korvettenkapitän Hoffmann, had struck a mine there and had been lost with all hands, and that 1 or 2 days after they arrived Pfeffer's U-boat, the same one that had been supplied with them, also was sunk by a mine only a half hour outside Lorient. Twenty-three men, including the captain and the executive officer, were stated to have been saved from this boat.

U-164 arrived in Lorient, the base of the 10th Flotilla to which she belonged, late in the afternoon of October 8, 1942. She had been out exactly 83 days. She tied up alongside the old French barracks, in which a welcoming celebration was held that evening. The next day was spent in clearing out the boat. She was then moved to one of the new sheltered dry-docks in Keroman, where she remained for several weeks. After this she was moved to a wet-dock in the older Pont Guesdon shelters on the left bank of the River Scorff, where she lay in berth number 4. Five weeks were spent in these locations, and during this time thorough repairs were undertaken, the most important of which was an extensive overhaul of the Diesels. These had given trouble during the homeward voyage, a bearing of the cooling system having burned out, causing the engines to run hot. Upon completion of these repairs the engines were subjected to a stationary trial of 90 hours, and to a trial run inside the harbor. It developed that the Diesels were still not functioning properly because metal shavings had gotten into the mechanism of the oil-pumping system. Torpedoes which had been loaded in anticipation of departure were therefore given up again to the torpedo depot, and *U-164* went back into her old wet-dock berth for a further 2 weeks. The engines were flushed with high-pressure oil and again repaired.

A second trial run in the harbor was made on Saturday, November 28, 1942, and the Diesels were now found to be in order. However, the diver who went down to make the final inspection of the hull before sailing found a length of wire wrapped around one of the propellers. Prisoners described the wire as belonging to the camouflage net which had been thrown over the U-boat during the time that she lay outside. Another trip to the dry-dock in Keroman was called for. The damage was repaired by the next day, Sunday, November 29, and *U-164* was ready to sail again.

During *U-164's* stay in Lorient the crew had 14 days' leave, in two watches, and traveled to Germany. Both of the prisoners experienced the Lorient raid of October 21, 1942. They said that the bombs penetrated the shelters only 40 to 50 cm. All crew members got the U-boat badge for their long cruise from the chief of their flotilla, Kuhnke, and the Second Watch Officer, a warrant quartermaster, and the petty officer prisoner got the Iron Cross, 2d class, from Admiral Dönitz himself.

Chapter V. SECOND WAR CRUISE OF U-164

U-164 sailed from Lorient for her second war cruise on Sunday, November 29, 1942. She was preceded by a minesweeper and followed by a smaller escort vessel. Her run through the Bay of Biscay was enlivened by three night aircraft alarms and crash dives. All of the planes were reported by the G. S. R. operator, and prisoners expressed their appreciation of the effectiveness of this new device. They stated that they experienced no further alarms on this cruise until the last one.

U-164 was bound for an operational area off the northeast coast of South America. She proceeded at slow speed on Diesel-electric, making 4 knots, according to the petty officer, who said that from 4 to 5 weeks were occupied in the crossing.

A most unusual incident further contributed to the delay. After they had been out some time it was discovered that there was a leak in the bilges beneath the batteries. Investigation revealed two small holes, variously estimated as about 8 or 15 mm. in diameter, in the pressure hull, between the battery compartment and Diving Tank No. 5, starboard side. Prisoners were at a loss to explain what had caused the holes, being able to suggest nothing better than battery acid, although one did wonder whether a corrosive might have been poured on the plates in an attempt at sabotage.

At any rate, *U-164* was stopped to effect repairs just off St. Paul's Rocks. The starboard side was raised as high as possible out of the water by blowing the tanks there and flooding those on the port side. A coxswain was ordered to rig a cofferdam of wood around the opening into the tank, but he was unable to do so, and finally collision mats were used. The engineer officer and a machinist climbed into the tank and did the work. They tried to weld the holes but were unable to, and they finally forced screws into them. The whole operation was said to have taken about 6 hours. Before leaving, *U-164* engaged in a little sport by firing at an abandoned lighthouse on the rocks with both of her deck guns. The distance was stated to have been from 200 to 300 meters.

At some point during this cruise repairs also had to be made on the Junkers compressor, one stage of which had broken down.

U-164 celebrated New Year's Day of 1943 with her only success of this cruise. She sank the S. S. *Brageland*, Swedish motor freighter

of 4,800 gross tonnage, at 1000 GMT, in position 00.19 N., 37.30 W. The ship was en route from Santos, Brazil, to Philadelphia with a cargo of coffee, wool, and other products. She was traveling alone. The Survivor Report gives the following excellent description of the sinking:

"At 0930 GMT submarine was sighted on surface on port quarter at a distance of 1 mile. Sub overtook ship in a few minutes, came alongside, blinkered the vessel to heave to, and ordered master to come aboard sub. Master went aboard deck of sub and was interrogated as to name of ship, destination, cargo, etc. In answer to the statement of the master that the vessel was a 'neutral' ship the sub commander replied that the cargo was nonneutral. After checking a book which contained a list of ships allowed to run in trade without danger of attack, the sub commander asserted that he was obliged to sink the vessel. Shortly after the master returned to the *Brageland*, the sub commander in the Swedish language, ordered the ship abandoned. This was accordingly done within a few minutes. At 1000 GMT after the sub had maneuvered on the surface to a point on port beam 500 yards away, it released a torpedo which struck the ship in the after section of the engine room; which opened a large hole; ruptured main deck and plates on boat deck and caused an immediate flooding of the engine room. The ships engines had been secured prior to abandonment; no distress signals were sent; vessel was unarmed; codes and confidential publications went down with the ship."

U-164 continued her patrol, cruising fearlessly on the surface much of the time, according to the survivors. There she was found to her sorrow at midday on January 6 by a U. S. Navy plane, which took violent exception to her being there, and spoiled her plans for a cruise which was to have lasted 16 weeks.

Chapter VI. DISAPPEARANCE OF U-164

Shortly before noon on January 6, 1943, a PBY-5A plane of Squadron 83-P-2 was returning to its base at Natal, Brazil, from a patrol. According to her report, a white streak on the horizon attracted her attention, and she found that it was caused by a U-boat traveling on the surface. Keeping a cloud between herself and the enemy, she got into position and dived to deliver an attack with four Mark XVII bombs set at 25 feet, releasing three of them simultaneously and the fourth a split second later. The attack was made 8 minutes after the target was sighted, from a height of only 35 feet. The U-boat maintained the same course and speed throughout, and the decks were not yet awash when the bombs exploded. Several men were seen lying on deck, apparently sun bathing, and these leaped up only a moment before the drop was made. The position was 01.58 S., 39.23 W., only 65 miles from land, and the hour was 1153, local time.

Two explosions were observed. One was very large, about 5 feet to port of the U-boat and abeam of the conning tower, and was apparently caused by the first three bombs exploding simultaneously. The second was smaller, about 60 feet to starboard and slightly abaft the conning tower, and was undoubtedly the fourth bomb. The stern of the U-boat appeared at the forward edge of the large TNT residue spot, rising almost vertically 8 to 10 feet out of the water, bobbing up and down. It stayed there for a time estimated as 25 seconds to 3 minutes, and then sank straight down.

The plane observed much evidence of damage. The U-boat appeared to rise out of the water and to break at least partly in two pieces. Three large tanks, thought to be about 20 feet long, emerged from the broken area as the bow settled under. Much miscellaneous debris was briefly seen before it disappeared. The observers reported seeing several mangled bodies, and also three men alive, one of whom may have been killed immediately by the gunfire with which two of the three tanks were sunk. On the return of the plane, one man had disappeared, one was clinging to the top of the remaining tank which was floating vertically, and one was still in the water. Two rubber life rafts were dropped, and the man in the water succeeded in reaching the second one. He paddled it to the tank and took his comrade aboard. The plane then lost contact because of the rough water, and could not regain it during a search continuing for over 3 hours.

The two men last seen on the raft are the prisoners upon whose statements this report is based. Their account of the event agrees in the main with the plane's report, but differs in some details. They were on the deck at the time of the attack, but they were bathing, not sunning themselves. Their watch on the bridge had just been relieved and after going below the two survivors came up again for a few minutes. Upon sighting the plane they dashed up to the bridge, but found it deserted and the hatch already closed. The water was just breaking over the bow of the U-boat as she began her dive. It was at this very moment that the bombs exploded. The two men were blown from the bridge into the water, and it seems quite possible that they were a few moments regaining complete awareness of the scene around them. Yet they were able to give a fairly good description of it. They identified the three tanks as upper deck torpedo containers that had been blow loose. They saw the stern of the boat rise up out of the water and go down almost vertically. They denied, however, the presence of a third swimmer, and said they were definitely the only ones locked out or swimming in the water. They also denied emphatically seeing any mangled bodies. They were, consequently, quite strong in their belief that the U-boat might have escaped, and were skeptical of the suggestion that she had been sunk.

It seems hard to believe that *U-164* could have survived such a severe and well-placed attack, and it must be borne in mind that the survivors could have been prevented from seeing all of the evidence of damage by the rough condition of the water, and that the U-boat made no known effort later to pick up the men she had deserted. On the other hand, it is possible that what appeared to the plane to be the U-boat breaking in two may have been only the superstructure being blow up, that the debris may have come from the storage space under the deck, and that what appeared to be a vertical sinking may have been the conclusion of a steep dive.

Chapter VII. DETAILS OF U-164

Tonnage.—750.

Type.—IX.

Building yard.—Deschimag (Seebeck), Wesermünde.

Flotilla.—10th, Lorient, under command of Kapitänleutnant Günther Kuhnke.

Device.—An oak leaf with an acorn. Stated never to have been painted on the conning tower, but to have been made of tin and to have been removable. The device was also worn on the caps of the crew.

Yard device.—U-164's yard device was an ace of spades with one bar beneath it.

Diesels.—Built by M. A. N. (Maschinenfabrik-Augsburg-Nürnberg). They were stated to be of 2,200 horsepower each. Revolutions were stated to range from 125 at Dead Slow to 485 at Emergency speed. They had no supercharger.

Electric motors.—Built by Siemens. Stated to be of 500 horsepower each, and to turn up 90 r. p. m. at Slow Speed.

Fuel capacity.—Stated to be 280 to 300 tons. Consumption stated to be about 2 tons per hour at Full Speed.

S. B. T.—Not fitted. Supposed to have been fitted at Lorient, but not supplied because of lack of time, according to one prisoner.

G. S. R.—Carried by U-164, but not in use at the time of the final attack. Prisoners stated that it was used only at night, and that lookouts exclusively were relied upon by day. They considered it highly effective, stating that it had saved them several times in the Bay of Biscay.

They stated that U-164 had received the gear at Lorient. The aerial was made of wood, and was known as the "Southern Cross" ("Kreuz des Südens"). It was brought up at night, and the watch turned it around. It could be turned in a full circle, in any position desired. There were two very small jars, called amplifiers (Verstärkungen). They were brownish in color, about 3 inches high and 1½ inches in diameter.

The radio man was said to operate the instrument, passing the information regarding the direction of the approaching plane to the captain, who orders "Alarm."

KDB listening gear.—Originally fitted, but removed at Wilhelms-

haven after the trials because it leaked at the gland and was considered very poor. Stated never to have been replaced.

Radar.—*U-164* seems not to have been equipped with radar.

D/F gear (Peilgerät).—Stated to have been out of order on the first cruise.

Armament.—One 10.5 cm. gun forward; one 3.7 cm. antiaircraft gun aft; one 20 mm. antiaircraft gun on the bridge. The last was stated never to have been used on *U-164*, since it was not trusted. Four MG34 machine guns were also carried, according to prisoners' statements. Ammunition for the 10.5 was stated to be brought forward from the conning tower. The ammunition locker was under the control room. Scuttling charges were also said to be carried there.

Torpedoes.—Twenty-three were carried; 15 electric inside the boat—10 forward, 5 aft—8 air in the deck containers. The location of the 8 deck torpedo containers was given as follows: the first pair extends from the hydroplanes to the tip of the barrel of the 10.5 gun; the second pair extends from the gun barrel to the conning tower breakwater; the third pair extends from the breakwater to the engine room hatch; the fourth pair extends from the engine room hatch to the after torpedo hatch.

Dives.—A prisoner stated that *U-164*'s deepest dive had been to a depth of 120 meters, although the depth gauge was marked to 200 meters. The steepest angle ever attempted was 35°; a dive of over 40° would have caused the battery acid to spill. (O. N. I. NOTE: This would seem to indicate that *U-164*'s batteries were not equipped with the new type of safety stopper.) The record time for a crash dive, starting with four men on the bridge and going to 15 meters, was stated to be 42 seconds. The prisoner pointed out that a 750-tonner cannot dive as fast as a 500 tonner.

Bridge watch.—The lookout watch was described as consisting of a coxswain and two ratings, each of whom was assigned a sector of 120°. A watch officer—the warrant quartermaster served as the third watch officer—was always present, also, to supervise. Prisoners insisted that this unusual arrangement prevailed on their U-boat.

Field post number.—The field post number of the U-boat was M 41384.

Operational group.—*U-164* was stated to have belonged to Group Lohs on her first cruise.

Bunks.—The radio men had one bunk each, while there were two seamen assigned to one bunk.

Food and water.—Prisoners stated that *U-164* always had plenty of food but was short of water on occasions.

Health.—The health of the crew evidently constituted a problem on *U-164*, as is shown by the fact that it was considered necessary to

carry a doctor on the second cruise. Prisoners related that everyone suffered terribly from the heat in the Caribbean on the first cruise. The engine room ratings were particularly plagued by skin eruptions on the arms and legs. This malady was treated with a special black salve applied by a radio man who had also had training as a pharmacist's mate. Several injuries were sustained on this cruise, also by engine room personnel. One cut his shin open on the deck in rough weather, the other hurt his knee in the engine room. These injuries were treated by the Captain himself in his cabin.

On the second cruise the crew members were suspected of having contracted venereal diseases, and the doctor did turn up several cases. Prisoners were still amused by the fact that so many of the crew had to have their pubic hair shaved. The doctor's time was not fully occupied by professional duties, however, and he also acted as ship's barber.

Chapter VIII. GENERAL REMARKS ON U-BOATS

3.7 gun.—Prisoners report that the 3.7 gun used on the 750-ton U-boats abaft the conning tower has proved unsatisfactory and is being removed, and that instead a twin 20 mm. gun is being mounted on the bridge.

Doctors.—A prisoner stated that all U-boats leaving from Lorient (750-tonners) now have a doctor aboard, since they are operating in the South Atlantic and illnesses are frequent because of the heat and longer trips, and since the supply U-boats reach them too infrequently.

Vitamins.—A prisoner stated that every man on a war cruise is supplied once a week with a package of 12 cream colored tablets wrapped in tin foil and cellophane. They are described as being twice the size of a lump of sugar, or about 2.5 cm. x 2.5 cm. They are vitamin tablets, and are described as extremely sweet to the taste. Prisoner once ate all of his at one time without any ill effect. A prisoner from another U-boat stated that this weekly vitamin supply was insufficient, since the condition of many men's teeth shows they deteriorate badly from lack of vitamins during a long cruise.

Schoka-Kola is a chocolate used as a stimulant. It is handed out with hard candy and is considered food and not medicine.

Black pills were available on board *U-164* for use in strengthening the eyes.

Radar aerial.—A prisoner knew that the radar aerial was located on the forward part of the conning tower on some boats, but said he had never seen the aerial itself, because it is always covered with something like a metal Venetian blind when U-boats are in port.

Superstition.—A prisoner stated that U-boats never leave Lorient on a Friday.

Next of kin.—Prisoner stated that the families of U-boat men are notified 3 to 4 weeks after a boat is considered lost. (O. N. I. NOTE: It is believed that the period is in fact considerably longer.)

Firing by sound.—Neither prisoner had ever heard of U-boats firing solely by sound. They said that German sound apparatus, which *U-164* apparently did not carry, was inadequate for this purpose.

Chapter IX. U-BOAT BASES

Bordeau

A prisoner stated that 1,200- and 1,600-ton U-boats are based on Bordeaux.

Hela

According to one prisoner the well-known naval disciplinary camp is no longer located at Hela but has been removed inland. Men who have been punished there may never go to sea again, but serve in the naval artillery and other shore positions. (O. N. I. NOTE: The reinstatement of Kapitänleutnant Rudolf Lemcke of U-210 (Cf. O. N. I. 250 G No. 4) after 3 months at Hela must have been an exception.)

A prisoner stated that the *Swakopmund*, one of the two depot ships at Hela, was built for Turkey originally but had never been delivered. Kapitänleutnant (Ing.) Gerd Suhren lives on board the *Swakopmund*, as it is the headquarters of the Active Service Training Group (Agru-front) to which he is attached.

Kiel

It was stated that the *Berlin*, formerly used as a Gunnery Training Ship at Kiel has been broken up for scrap.

According to a prisoner's statement the burning of the *Monte Sarmiento* at Kiel-Wik was accompanied by considerable loss of life, with sailor's bodies wedged in the portholes in a futile attempt to escape.

One of the brothels in Kiel is called the "Monopol."

Leer

During a prisoner's stay at Leer from September 1940 to April 1941, Leutnant der Reserve Mensel was head of the 2d or 3d Company of the 8th Ship's Manning Division.

Lorient

Confirmation of the location of the 2d and 10th Flotillas at Lorient was received. Two more flotillas were reported scheduled to be moved to Lorient.

A prisoner believed that seven shelters are building at Keroman of which three are completed. In these two boats lie side by side and move up and down with the tide. These are located on the southwest tip of the Keroman Peninsula on the left bank of the Ter River between the projected basins and the large basin.

The demagnetizing range is located just north of the Pont Guesdon above the disused building slips. Prisoners knew of none at Pointe de Penmané.

A bomb was said to have penetrated 40 to 50 cm. into the roof of a shelter during an air raid in which 4 hits were scored on shelters. The "Siemens Lager" burned out completely as the result of an air raid. Germans laugh at English and American flyers who attempt to bomb shelters but this does not alter the fact that 150 Frenchmen, Italians, and Belgians were killed in this raid.

The former U-boat commander Fregattenkapitän Herbert Friedrichs was said to be in Lorient as commander of the naval guard. He was considered too old to have a U-boat, being about 50.

The crew of *U-164* was stated to have been well-known in Lorient. At their departure each member of the crew was presented with a rose by French kitchen girls and by brothel inmates.

A prisoner stated he lived in barracks, Haus Mugler, formerly "l'École de Musique," just north of the place Alsace-Lorraine, next door to the canteen where U-boat men also live.

Brothels in Lorient charge 30 francs for a room and 50 francs for a girl. The franc is worth 5 pfennig, or 20 francs equal 1 mark.

Swinemünde.

According to one prisoner the ex-Battleship *Schlesien* and the Target Ship *Hessen* were in Swinemünde when *U-164* touched there early in June 1942. There were many civilians aboard the latter. The *Hessen* is equipped with a vertical aerial (Stabantenne).

Wesermünde.

It was stated that when *U-164* was at Wesermünde during October and November 1941 *U-163* was fitting out in the Handelshafen, *U-164* and *U-165* were in the Ausrüstungshafen, and *U-166* and *U-167* were on the stocks behind a high wall so that they were hidden from view. No more U-boats were to be built at Wesermünde after *U-167*.

A number of flak-ships were located alongside the west dock of Fischerei Hafen I. The barracks for crews during the final stages of construction (Baubelehrung) of *U-164* were located on the west bank of the Ausrüstungshafen.

Annex A.—CREW LIST OF U-164

Name	Rank	U. S. N. equivalent
Fechner, Otto	Korvettenkapitän	Lieutenant Commander.
Hissen	Kapitänleutnant	Lieutenant.
Arlt, Hellmut	Oberleutnant (Ing.)	Lieut. (jg). Engineering duties only.
Schopper, Werner	Oberleutnant z. S.	Lieutenant (jg).
von Ramberg, Freiherr	Leutnant z. S.	Ensign.
Maler	Oberassistentarzt	Lieutenant (Medical Corps).
Heuen	Fähnrich	Midshipman.
Molwo	Fähnrich	Midshipman.
Janke	Obersteuerermann	Warrant quartermaster.
Rohn	Obermaschinist	Warrant machinist.
Berthold	Obermaschinist	Warrant machinist.
Jörissen	Obermaschinenmaat	Machinist's mate, 2 cl.
Raum	Obermaschinenmaat	Machinist's mate, 2 cl.
Kemmisies	Obermaschinenmaat	Machinist's mate, 2 cl.
Folkers	Obermaschinenmaat	Machinist's mate, 2 cl.
Schönfelder	Bootsmaat	Coxswain.
Knauf	Bootsmaat	Coxswain.
Radke	Bootsmaat	Coxswain.
Schuster	Funkmaat	Radioman, 3 cl.
Arenz	Funkmaat	Radioman, 3 cl.
Naumann	Maschinenmaat	Fireman, 1 cl.
Grosstad	Maschinenmaat	Fireman, 1 cl.
Kienberger	Maschinenmaat	Fireman, 1 cl.
Weidlich	Mechanikermaat	Torpedoman's mate, 3 cl.
Streiphart	Matrosenobergefreiter	Seaman, 1 cl.
Knobloch	Matrosenobergefreiter	Seaman, 1 cl.
Ulbrich	Funkobergefreiter	Seaman, 1 cl.
Melchior	Maschinenobergefreiter	Fireman, 2 cl.
Bednarek	Maschinenobergefreiter	Fireman, 2 cl.
Saller	Mechanikerobergefreiter	Seaman, 1 cl.
Rowold	Mechanikerobergefreiter	Seaman, 1 cl.
Kurka	Matrosengefreiter	Seaman, 2 cl.
Strübing	Matrosengefreiter	Seaman, 2 cl.
Jädike	Matrosengefreiter	Seaman, 2 cl.
Hugenschmidt	Matrosengefreiter	Seaman, 2 cl.
Podlofski	Matrosengefreiter	Seaman, 2 cl.
Kömpe	Matrosengefreiter	Seaman, 2 cl.
Volkmer	Matrosengefreiter	Seaman, 2 cl.
Bierbaum	Matrosengefreiter	Seaman, 2 cl.
Kretschmer	Matrosengefreiter	Seaman, 2 cl.
Pfeifer	Matrosengefreiter	Seaman, 2 cl.
Willwersch	Matrosengefreiter	Seaman, 2 cl.
Reimann	Matrosengefreiter	Seaman, 2 cl.
Mohrmann	Funkgefreiter	Seaman, 2 cl.
Niebuhr	Maschinengefreiter	Fireman, 3 cl.
Malow	Maschinengefreiter	Fireman, 3 cl.
Müller	Maschinengefreiter	Fireman, 3 cl.
Giesler	Maschinengefreiter	Fireman, 3 cl.
Hardt	Maschinengefreiter	Fireman, 3 cl.
Buchholz	Maschinengefreiter	Fireman, 3 cl.
Enger	Maschinengefreiter	Fireman, 3 cl.
Sommer	Maschinengefreiter	Fireman, 3 cl.
Becker	Matrose	Apprentice Seaman.

NOTE: The names of two men are missing, prisoners being unable to remember them.

SUMMARY OF CREW

Officers	8
Petty officers	16
Men	31
Total	55



