

## LONG NIGHT OF THE TANKERS: HITLER'S WAR AGAINST CARIBBEAN OIL

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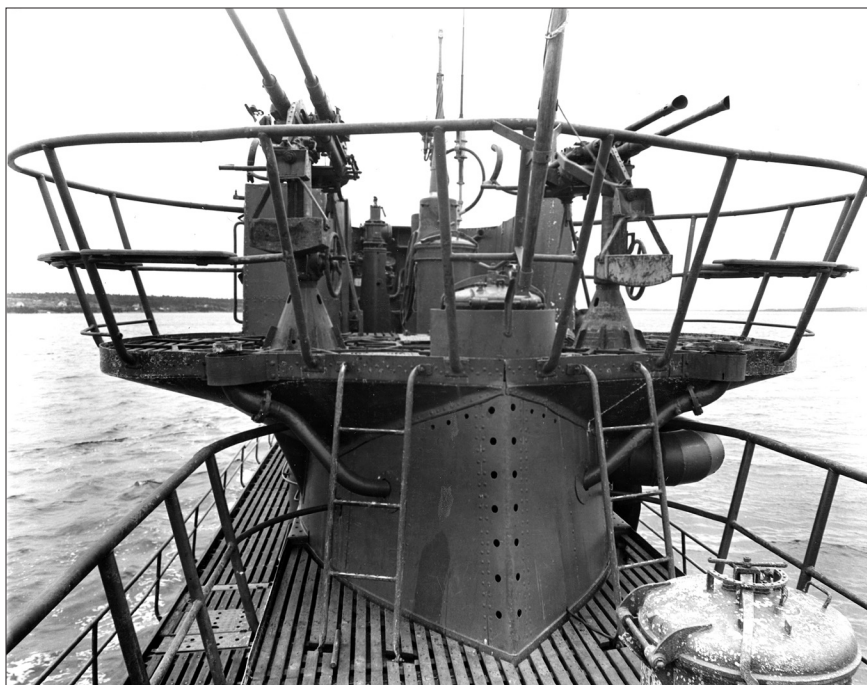
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## ATTACK ON ARUBA

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As January gave way to February 1942, Group Neuland shaped course for the Azores. The weather was a mix of clouds and light rain, with moderate seas. Day after day, the boats, running on just one engine, averaged about 170 nautical miles. The men referred to these long runs out to and back from the operations areas as “garbage tours.” It was boring, monotonous work. One by one, the cases of fresh provisions disappeared: meat after eight days, bread after 12, eggs after 21, and even potatoes as well as smoked hams after 35. Soon, crates of canned meats and vegetables were retrieved from the boat’s second toilet, much to the relief of the 49-member crew. Every crate eaten meant more living space. As the weather slowly warmed, the men took turns to sunbathe on the deck, to try their luck at fishing, to play cards and chess, and to listen to the shortwave radio – including the forbidden BBC, the Voice of America, and the “Black” radio programs such as Siegfried Eins and Radio Atlantic, emanating from London. There were also 200 records on board.

The leisurely crossing gave the mostly green crew time to take the measure of their new surroundings.<sup>1</sup> At 1,541 tons fully loaded, the Type IXC boats had almost twice the displacement of the standard Type VIIC boats. They were sturdy craft of double hull construction, with the diving tanks and main fuel oil bunkers in the outer hull. Five watertight compartments protected the boat against cracking of the pressure hull – by depth charges or aerial bombs. Two nine-cylinder MAN supercharged “Jumbo” diesels, each capable of producing 2,200 horsepower, gave the boats a best speed of 18 knots on the surface. Sixty-two AFA batteries housed in boxes set on rubber shock absorbers and stowed underneath the interior deck plates powered two Siemens-Schuckert double electric motors at a best



The aft facing twin 2cm anti-aircraft guns of a Type IXC Uboat. Source: Ken Macpherson Photographic Archives, Library and Archives at The Military Museums, Libraries and Cultural Resources, University of Calgary.

speed of seven knots submerged. Surface range was 14,035 nautical miles at ten knots; submerged range was 63 nautical miles at four knots. The boats had a safe diving depth of 100 meters (328 feet), but skippers often doubled that during particularly severe depth-charge attacks.

Armament consisted of six 53.3-cm (21-inch) torpedo tubes, four in the bow and two in the stern. For the long journey to the Golden West, the boats carried more than their standard allotment of “eels”: six in the firing tubes, nine strapped under bunks, and ten stored in watertight containers under the wooden planks of the top deck. Given that the new electric G7e T2 “Eto” torpedoes had often failed due to their faulty proximity and contact fuses, the boats had also been outfitted with the older but more reliable G7a T1 “Ato” torpedoes. Finally, the boats carried one

10.5-cm<sup>2</sup> deck gun mounted on the forward deck; one 3.7-cm anti-aircraft gun on the after deck; and small 2-cm anti-aircraft cannons on the bridge.

Only some 30 feet longer than the Type VIIC boats, the IXC class offered little more in the way of comfort for their crew of roughly 50 officers and ratings.<sup>3</sup> The boats were divided into four main sections. Moving from the bow to the stern, the first section was the forward torpedo room with its four firing tubes and reloads stashed under the bunks which were shared, or “hot-sheeted,” by the ratings depending on which were off-duty. Stepping back through a heavy watertight bulkhead, one entered the petty officers’ quarters; these lucky few had their own bunks. Just behind the petty officer’s quarters was the small galley, the domain of the cook, or *Smutje*. It consisted of a small refrigerator, two small ovens, and three hot plates. Moving back from the galley through another watertight bulkhead, one encountered the brain and nerve center of the boat: the officer’s wardroom and the captain’s cabin, adjoined by the radio room and the underwater sounding station. Most importantly, the radio room housed the Enigma cipher machine. This was where messages were encoded as well as decoded (“officers only”), and where courses and positions were plotted on the secret grid charts (*Quadratkarten*). Hydrophone readings were taken in the underwater sounding station, where the war diary (*Kriegstagebuch*, or KTB) was also maintained. Clocks were always set on Berlin (GMT+1) time.

Amidships, directly under the conning tower, was the mechanical heart of the boat, the control room – a bewildering array of gauges, switches, meters, valves, hand-wheels, pumps, magnetic and gyro compasses, rudder and hydroplane controls, as well as chart closet and mess table. Appropriately named *die Zentrale*, this section was dominated by the two periscopes – the large sky scope and the smaller attack scope. Between the periscopes were a ladder and hatch that led to a small conning tower above the control room. From there, the executive officer worked the attack calculator, compass repeater, and attack periscope to aim and arm the torpedoes during an attack. Directly above him was a watertight hatch leading to the bridge.

Moving still further back inside the boat through yet another watertight bulkhead, one entered the engine room, the noisy, grimy nether world of the chief engineer and his “black gang.” It housed the two

massive MAN diesels, mounted side by side and with a narrow pathway between them to allow the engine crews to service the monsters. Just behind the diesels were the two Siemens-Schuckert electric motors, aligned on the twin shafts that ran from the diesels to the two three-bladed propellers. Finally, through yet another watertight bulkhead one reached the aft torpedo room. Aside from the two stern torpedo tubes and reloads, it had eight bunks for a crew of sixteen and an auxiliary steering wheel.

The boats turned into a veritable sewer within the first two weeks of a war patrol. Men wore what they called “whore’s drawers,” black underwear to hide the sweat stains that daily grew once the boat reached its operations area. Humidity often approached 100 per cent inside the steel hull; dripping condensation turned paperback novels into paste. Especially in the tropics, the temperature inside the steel hull reached 40 degrees Celsius. The bilge became a sluggish rivulet of oil, urine, and spilled battery acid. Mold was commonplace. Cheeses stored in the torpedo rooms and sausages and slabs of smoked ham hanging off the bulkheads further fouled an already odiferous air. Human waste was launched through an empty torpedo tube as the toilets could not be flushed at depths greater than 100 meters. The men’s only hope to breathe fresh air was that their skipper would call them up on deck in warm climes and during non-combat hours.

The Neuland boats had received two of the German Navy’s latest technical innovations before leaving Lorient. The standard Enigma (or *Schlüssel M*) machine had been given a fourth “*alpha*” rotor to make it virtually impossible to crack. Already with just three rotors, each with 26 contacts, 16,900 live posts were possible. The fourth rotor expanded those possibilities to 44,000 live posts. U-Boat Headquarters confidently projected for this new M4 machine with its “Triton” cipher circuit a theoretical total of 160 trillion settings for a complete radio transmission.<sup>4</sup> Surely, no human brain could possibly unravel such staggering combinations! The second innovation was reserved solely for *U-156*: a fixed array FuMO 29 radar detector mounted on the front of the upper conning tower. The device had a range of just under five miles and a field of view of but 60 degrees forward.<sup>5</sup> Neuland was to be its first operational test.

Albrecht Achilles and *U-161* had left Lorient the evening of January 24, 1942, on a course of west-by-southwest. Destination: Trinidad, 3,600

nautical miles from Lorient. Precisely one week later, they spotted their first two enemy destroyers. Luckily, they remained undetected.<sup>6</sup> Early in the morning of February 1, *U-161*'s lookouts spied the Arnel lighthouse on San Miguel Island in the Azores. Thereafter, Achilles altered course due west for Trinidad.

For the crew of *U-161*, their new skipper remained a mystery. They knew only the barest details of his career. Born on January 25, 1914, he had just passed his 28th birthday. He was regular navy, having entered the service in April 1934. He had been assigned first to the old battleship *Schleswig-Holstein* and then the new 11-inch battleship *Gneisenau*. In April 1940 Achilles had transferred to the U-Boat Service and after three war patrols as executive officer on *U-66* had received his own boat.

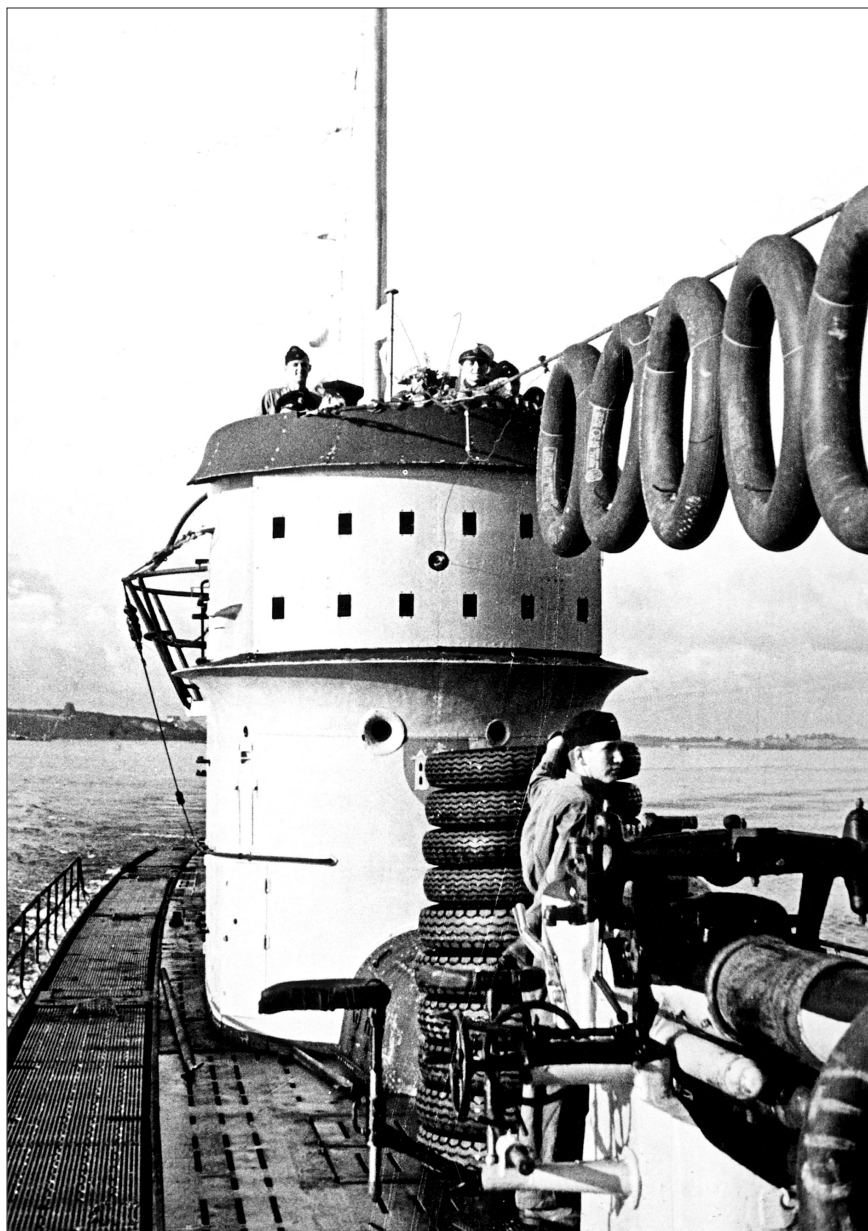
Second Watch Officer Götz Roth recalled his skipper in 1942.<sup>7</sup> "He was still young, only a few years older than the crew, which on average were between 20 and 22 years of age.... Achilles was not tall – about 1.74 meters. He quickly won our confidence." The Old Man was "friendly," a man who set the right tone for both the command bridge and the mess. He maintained strict, but not unbending, discipline on board and was a professional through and through. "Political topics were taboo on U 161."

As soon as the Neuland boats reached the mid-Atlantic, Vice Admiral Karl Dönitz reminded his skippers not to give their position away by attacking single freighters, however tempting they might be. As *U-161* crossed the line 40 degrees west longitude, it radioed in its oil situation, as ordered by U-Boat Headquarters: "Still have 190 cbm fuel." On February 10, Kernével sent out news that "a Spanish naval officer" had informed U-Boat Headquarters that the harbors at Curaçao as well as Trinidad were "open, not mined, no blackout." Shortly before midnight on February 15, Achilles sighted the lighthouses of South Point and Ragged Point on Barbados. Twenty-four hours later, Trinidad hove into sight. *U-161* had reached its operations area. Grid Square ED 9596.

\* \* \*

*U-156* also had an uneventful crossing. After leaving Lorient on January 19, 1942, Kapitänleutnant Werner Hartenstein, the Neuland group leader, radioed the top-secret Operations Order 51 to his fellow Kaleus:





*U-156* returning home from a patrol. Source: Ken Macpherson Photographic Archives, Library and Archives at The Military Museums, Libraries and Cultural Resources, University of Calgary.

“Surprise, concentrated attack on traffic in the immediate vicinity of the West Indies islands of Aruba a[nd] Curaçao. Codename: Neuland. Attack 5 hours before sunrise [on February 16].”<sup>8</sup> Hartenstein’s destination: Aruba, nearly 4,000 nautical miles from Lorient. The weather also held for *U-156*: moderate seas, light winds, overcast skies with occasional rain squalls.

As the days went by, the crew got to know their skipper. Born on February 27, 1908, at Plauen, Hartenstein spoke with a heavy Saxon accent. He was a stern taskmaster. A regular navy man, he had entered the service in 1928 and had been assigned mainly to torpedo-boats.<sup>9</sup> In March 1941, he had transferred to the U-boat arm. He proudly wore the Iron Cross, 1st and 2nd Class. On February 2, he received word that he had been awarded the German Cross in Gold for “extraordinary bravery” while serving with the destroyers.<sup>10</sup> The loudspeakers on *U-156* blared out martial music, the Old Man donned his dress blues, and the *Smutje* outdid himself with ox-tail soup, stuffed rolled flank steak, and chocolate pudding. Hartenstein reciprocated with three shots of the “medicinal” cognac for the mess. He was now just a few weeks away from his 34th birthday. He had a wiry but solid frame of medium build. His high cheekbones and eagle-like nose reminded some of the men of Dr. Joseph Goebbels, the Nazi propaganda minister. A rapier thrust from a duel during his two years at university had left a permanent scar on his left cheek.

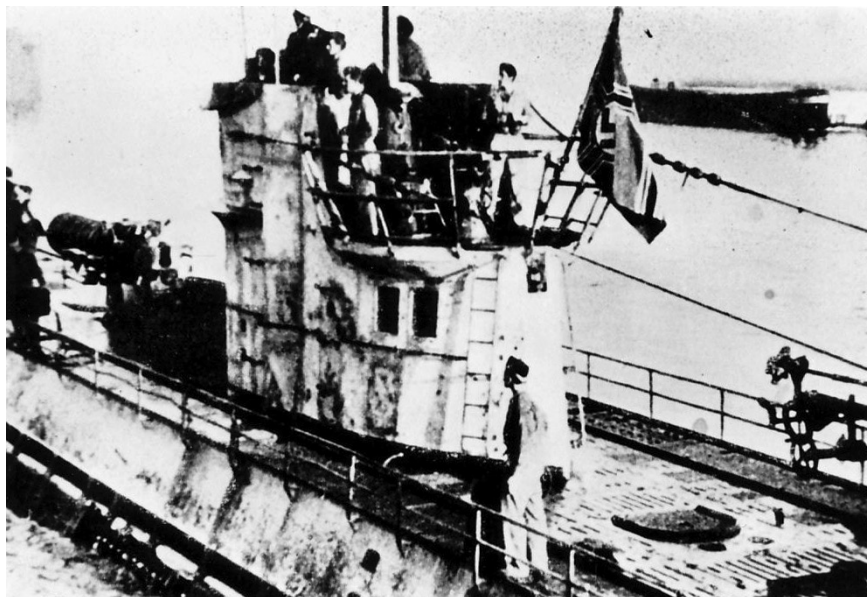
The men knew that he was a “loner.” The story had made the rounds that, as a newcomer to the U-Boat Service, he had run into Erich Topp at a bar in France. Topp already was an “ace,” a commander who would end his career ranked third on the list of all-time greats, with 35 ships of just under 200,000 tons destroyed. He was one of only five skippers to receive the Knight’s Cross with Swords and Diamonds. When Topp had taken a seat next to him at the bar, Hartenstein had merely growled: “My name is Hartenstein. I don’t give a damn what yours is.”<sup>11</sup>

At 2 p.m. on February 4, the Enigma board lit up: “Neuland 186.” *U-156* would be free to begin operations against Aruba five hours before sunrise on Monday, February 16, 1942. The next day and again five days later Hartenstein spied single freighters, unmarked and unescorted in the mid-Atlantic. Easy targets, but off limits. “Did not attack according to operations orders,” he dryly noted in the war diary. By now, *U-156* was





Werner Hartenstein. One of the most senior U-boat commanders, Korvettenkapitaen Hartenstein began his career on the light cruiser *Karlsruhe*, and in March 1941 transferred to the U-Boat forces. He undertook four patrols with *U-161*, sinking 19 Allied ships of 97,489 tons. A Knight's Cross holder, he became most famous for his actions to rescue the survivors of the 19,695-ton liner *Laconia*; his "bag" in the Caribbean included the destroyer USS *Blakeley* off Martinique. Source: Deutsches U-Boot-Museum, Cuxhaven-Altenbruch, Germany.



*U-156*. Commissioned at Bremen in September 1941 and commanded by Korvettenkapitaen Werner Hartenstein, *U-156*, a Type IXC boat, played a major role in the German attack on Aruba; it was sunk in March 1943 east of Barbados by depth charges from a US Catalina flying boat. Source: Deutsches U-Boot-Museum, Cuxhaven-Altenbruch, Germany.

skirting the southern edge of one of the strangest and most notorious bodies of water on the planet – the Sargasso Sea, just above the Tropic of Cancer. Vast islands of green seaweed lazily floated on the ocean. As his boat sliced through the mats, Hartenstein noted that *U-156* was now in the heart of the Bermuda Triangle.

Under cover of darkness on February 10, 24 days out of Lorient, *U-156* passed the Guadeloupe Channel south of Antigua in the Leeward Islands, being sure to hug the friendly Vichy-French coast of Guadeloupe. It was now time to power up the second of the supercharged MAN diesels. These were halcyon days for the crew. The gentle Caribbean breeze and warm sea were welcome relief from the cold and rainy mid-Atlantic. Swims in the deep blue waters were much appreciated, as were showers from the fire hoses rigged up on deck. Few bothered with bathing suits. Hartenstein

broke out the tropical gear: soft canvas shoes, tan tropical shorts, sleeveless light tan jerseys, and pith helmets. The men detested the latter. Many had brought along their own khaki field caps, similar to those worn by the Afrika Korps.<sup>12</sup> In the 40-degree-Celsius heat inside the boat, the jerseys and caps were quickly stowed and replaced by a sweat rag worn around the neck. To the joy of the crew, Hartenstein introduced them to the exotic family *exocoetidae*, or flying fish. For some time, the men had seen blue and silver fish with long pectoral fins accompany the boat, oftentimes gliding through the air on these “wings.” Fishing was easy and breakfast now consisted almost exclusively of fried flying fish. Watches competed with one another in this piscatorial sport; the record was 60 fish in a single 24-hour period.

As the island of Curaçao came into view, the Old Man decided that it was time to inform the men of their mission. “Soon it will be time for action. It is our job to upset as far as possible the course of tankers between Venezuela and the islands of Aruba and Curaçao, *and* to attack the oil refineries – with our guns.” He informed them that *U-67* and *U-502* would also join the hunt and that all action against non-tankers (battleships and aircraft carriers excepted) was “forbidden” by headquarters. “Now – I wish you a good night. Dismiss.”<sup>13</sup> Later that night, the officer on watch sighted a brightly lit passenger liner through his periscope and could make out couples dancing on the upper decks. It seemed from another place and another time.

At 7:16 p.m. on February 13, Hartenstein brought *U-156* to the surface.

Grid square EC 9347. The northeasterly trade winds were blowing a fresh breeze, Force 4. Through the Zeiss binoculars, he could make out the Colorado light and the cliffs of Colorado Point on the southeastern tip of Aruba. *U-156* had arrived at its operations area ahead of schedule. The surprise attacks on Allied oil in the Caribbean were about to be unleashed.

\* \* \*

Off Aruba on February 13, it was time for Hartenstein to reconnoiter.<sup>14</sup> Slowly, *U-156* pointed for the Colorado light and then made its way up the west coast of the island. An “oily haze” hovered above the surface of the

sea. Shortly before 11 p.m., Hartenstein, having carefully noted Aruba's treacherous coral reefs on his chart, approached San Nicolas Harbor to within 900 meters. An awesome sight spread out before him: "4 large tankers inside the harbor; 3 small tankers in the offshore roads." What he called "factory installations" were "brightly lit up." In fact, this was the giant Lago "Esso" Refinery, over whose 2,716 acres Standard Oil of New Jersey in 1928 had received a 99-year lease. It was a beehive of activity, working around the clock to refine Venezuelan crude and reship the desperately needed high-octane fuel to the United States and Britain. The bright lights were a wonderful change from blacked-out Europe. The skipper let the crew come up top in small groups to take in the sight.

Hartenstein made quick mental notes. He gauged the configuration of San Nicolas harbor, the location of the tanker piers, the tank farm and refinery, and the lake tankers anchored just outside the lagoon. He especially reconfirmed the deadly coral reef that protected San Nicolas, creating a bright turquoise lagoon between it and the shore. The lagoon was too small to maneuver the 240-foot-long boat; too shallow to submerge and hide; and without sufficient range (180 meters) for the torpedoes to arm once fired.<sup>15</sup> Finally, he noted the high phosphorescence of the warm sea, a possible give-away to alert hostile aircraft.

Hartenstein continued his course northwest. He arrived off the capital, Oranjestad, just after midnight, and passed through the gap in the reef. Entering the mouth of the harbor, he saw little traffic. In the darkness he easily evaded several light aircraft. He also took note of another valuable reference point – the 541-foot-high, cactus-studded Hooiberg ("The Haystack") that towered over Oranjestad.

Satisfied, Hartenstein slipped away from the capital to scout the Caribbean Sea approaches to Aruba. Early on February 15, he returned to Oranjestad. A Dutch patrol craft was flitting about the harbor. Stealth was his best friend; he submerged *U-156* until dusk. At 5 p.m., he spied a large ocean-going tanker leaving the refinery. Two-engine aircraft were buzzing overhead. Three hours later, Hartenstein continued on to Colorado Point and shaped a course for the sea lanes between San Nicolas and Maracaibo, where he undertook a practice attack on an unsuspecting tanker.

Sunday, February 15, 1942, dawned bright and clear on Aruba. It was the middle of the dry season: blue skies, brilliant sunshine, perfect weather for picnics and beach parties. The ever-present trade winds blew at a steady 15 knots out of the northeast and soon the temperature climbed above 30 degrees Celsius. By late morning, the residents of Seroe Colorado at San Nicolas emerged from their \$24-per-month company rental bungalows and started off to the Lago Community Church. Some headed straight for the pleasures of Rodgers Beach and Baby Beach, both safely inside the reef. Others searched out the fish markets at Savaneta, the island's oldest town and former capital, for the Sabbath meal of fresh barracuda, crabs, sailfish, wahoo, blue and white marlin, or black and yellow fin tuna. Small wooden boats had come across the Caribbean Sea from Venezuela to sell their tropical bounty: avocados, bananas, guava, kiwi, mangoes, melons, and Jalapeño peppers. Many Seroe Colorado residents lunched on fresh crab and fish, followed by lazy strolls on the beaches or along the high ground on the dry, bare island.

Few even took notice of the newly arrived American coast defense gunners who lounged lazily in the barracks around San Nicolas harbor, or watched as crews began the laborious job of unloading their artillery, the American 155-mm "Long Toms." Almost a thousand American troops under the command of General Frank Andrews had descended on the island just four days earlier to relieve the Queen's Own Cameron Highlanders, British veterans of Dunkirk who had departed on February 13. What little news penetrated Aruba from the outside world came by way of American shortwave radio stations or the island's weekly newspaper, the *Pan Aruban*. That past Sunday, the paper had reported the most important American college football scores: Alabama 29 – Texas A&M 21, Oregon State 20 – Duke 17, Georgia 40 – TCU 26. And it had informed anxious pugilists that in the prize fight of the year, Joe Louis, "The Brown Bomber," had knocked out Buddy Bear at 2:56 of the first round at Madison Square Garden in New York. Hollywood had entertained the island throughout January with *In the Navy* starring the Andrews Sisters, *The Captain Is a Lady* with Charles Coburn and Beulah Bondi, and *New Moon* with Nelson Eddy and Jeanette MacDonald. Given that the United States

had curtailed all exports of automobiles after the Japanese attack on Pearl Harbor, Arubans eagerly scanned the *Pan Aruban* for used cars: most popular in the advertisements were 1934 Fords and 1936 Chevrolets for 150 florins each (three-months salary for a lake-tanker sailor) and upscale Buicks for 250 florins.<sup>16</sup>

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Hartenstein for a third time reconnoitered San Nicolas harbor after dark on February 15. Again, it was perfect. Houses and warehouses were brightly lit up, as were the refinery and the ships in the inner harbor. He noted laconically in the war diary: “Brisk traffic. Harbor well populated.” Suddenly, his Enigma machine sprang to life. Final orders from Vice Admiral Dönitz:

Main task is the attack on shipping. Once such attacks have taken place, artillery may be deployed against land targets already on the morning of the [first] day of Neuland, should the opportunity for this prove favorable. In case no ships can be targeted, authorize use of artillery against land targets beginning evening [first day of] Neuland.

The “Great Lion” had decided to ignore Grand Admiral Raeder’s orders to concentrate on the refineries.

Satisfied with his reconnaissance of San Nicolas, Hartenstein took *U-156* west to the Los Monjes Islands. “The Monks,” which were in Venezuelan waters, consisted of gray, barren rocks far removed from the major shipping lanes. Time for some last minute ersatz Jan Maats smokes, card games, and swims. Chief Engineer Wilhelm Polchau studiously measured the water temperature: 29 degrees Celsius, or 84 degrees Fahrenheit. It was a welcome relief from recent temperatures in the boat that had reached 37 and even 42 degrees Celsius.

*U-156* retraced its course to Oranjestad, using the Hooiberg as reference point. Hartenstein evaded several sailboats and a large passenger freighter. Surprise was critical. Moderate seas and a fresh breeze continued unabated. It was a bright, starry night. He ignored a single tanker taking



on product at the piers and continued down the coast. Trimmed to where just the conning tower was above water, Hartenstein proceeded outside the reefs until he was off San Nicolas harbor. It was 1:35 a.m., February 16. The time for reconnaissance was over. His orders were clear: "Attack 5 hours before sunrise."<sup>17</sup>

Silhouetted against the bright lights of the Lago Refinery were two lake tankers riding at anchor.<sup>18</sup> "Battle stations!" Remembering that he was regular navy, Hartenstein put on his dress-blue blazer. The bow tubes were loaded with a mix of G7a and G7e torpedoes. Executive Officer Paul Just counted down to zero hour: "Just three more minutes." At 1:59 a.m., Hartenstein barked out, "Tubes I and II ready to fire!" He then counted off the range: "800 – meters – 700 meters – 600 meters." The tension in the boat was electric. It was, after all, their first hostile engagement. Every eye strained for a glimpse of the Old Man. How would he hold up under pressure? How much longer the wait? Some stared at their watches. It was 2:01 a.m., precisely one minute into the official start of Operation Neuland.

"Tube I ... Fire!" Lieutenant Just slammed down the firing knob. The G7a "Ato" torpedo shot out of the tube at 44 kilometers per hour. There was a slight jolt to the boat. Hartenstein could watch the torpedo's tell-tale wake of bubbles on the surface of the sea. Good thing that it was dark. He then ordered the boat to come about slightly to starboard. Range to second target: 700 meters. Time: 2:03 a.m. "Tube II ... Fire!" Again, Just slammed down the firing knob. This time there were no surface bubbles, for the skipper had opted to fire the G7e electric torpedo. Anxiously, the boatswain's mate counted off the seconds. The men on *U-156* were painfully aware of the miserable track record of the navy's G7e "eel," which all too often failed to explode on impact.

After what seemed an eternity came the welcome cry: "Detonation after 48.5 sec. Tanker burns immediately. 3080 t[ons]." *U-156*'s first torpedo had penetrated the sides of the 4,317-ton British tanker *Pedernales*.<sup>19</sup> Amidships. There followed a thundering explosion that seemed to lift the vessel up in the water. Two minutes later, a similar fate befell the second tanker: "Detonation after 53.2 sec. Tanker burns immediately. 2740 t[ons]." The 2,396-ton British lake tanker *Oranjestad* also had been torpedoed amidships. Burning oil poured out through the gaping holes of the two tankers

and spread over the water. Screams could be heard across the burning sea as terrified sailors scrambled into lifeboats or jumped off the slanting decks.

Hartenstein watched the destruction with satisfaction. He had thirsted for action, and now the moment had finally arrived. He called his men up to the conning tower in small groups to watch the *Oranjestad* roll over and settle in the waters just outside the lagoon; it was burning furiously. The *Pedernales*, also seemingly settling into the shallow sea just off the reef, likewise was a raging fountain of fire. Thick, black smoke drifted over the reef and harbor. Herbert White, an Associated Press photographer assigned to cover the arrival of the first contingent of American troops on Aruba, caught the moment: "The harbor scene was like a raging forest fire right in our own front yard.... The blaze was shooting up high over the waterfront.... I could see the decks of [one] ship as a mass of flames."<sup>20</sup>

Hartenstein ordered *U-156* to come about to 300 degrees. "Course: harbor!" He could clearly make out the refinery silhouetted against the well-lit furnaces and the yard lights. Having carried out his primary mission against shipping, he was now free to attack land targets. "Clear the decks! Prepare to fire artillery!" The gun crews clambered out of the boat under the command of their artillery officer, Lieutenant Dietrich von dem Borne. They slammed the first shell into the breech of the 10.5-cm deck gun. Borne trained it on the refinery. Hartenstein laid *U-156* parallel to the coast, 500 meters away. It would be a turkey shoot. It was now 2:11 a.m.

"Both engines stop! Fire at will!" Hartenstein yelled down to the gun crews.

Seconds later he saw a bright flash from the big gun and heard a deep rumble. The 3.7-cm gun was also beginning to fire on the tanks filled with precious aviation fuel. Hartenstein spied two bright tracer shells speeding toward shore. But there was no fire from the 10.5-cm gun. "Fire 10.5-cm!" he screamed down to Borne. Nothing. Only the small afterdeck cannon continued to bark out. "Cease Fire!" Furious with his artillery officer and gun crew, Hartenstein leaped down from the conning tower and raced along the forward deck. As he reached the gun platform, he heard a low murmur. "10.5 out of action – Explosion in the bore!"

It was Lieutenant von dem Borne. He was propped up against the conning tower, his right lower leg shattered. Next to him lay the motionless body of Seaman Heinrich Büssinger; his stomach was lacerated and exposed, his thighs scored. Both men had been struck down by red hot pieces of metal. Blood covered the deck. In their excitement to destroy the refinery, Borne and his crew had forgotten to unscrew the tampion – the muzzle cap that kept salt water out of the barrel when the boat was submerged. The muzzle had splayed open like an “overcooked cauliflower”; more than a foot of the barrel was missing. An artillery expert, Hartenstein at once realized that the gun was beyond immediate repair. He had the technical staff put a clamp on the barrel at the point of the blast.

The 3.7-cm cannon fired 16 rounds at the refinery. Several landed in its compound. Hartenstein detected what he called a “tongue of fire” in the tank farm: one shell had struck Tank 111, making a four-inch by six-inch dent, without rupturing it. Twice more, the small gun spat out fire – without effect. No use to continue. “Cease fire!” Hartenstein roared. With no night sights and with black smoke enveloping San Nicolas Bay, there was no sense risking the boat.

By sheer coincidence, Frank Andrews, Commanding General, Caribbean Defense Command, was spending the night on Aruba when Hartenstein attacked. The explosions in the harbor woke him up.<sup>21</sup> His aide, Captain Robert Bruskin, later remembered:

[A]n explosion knocked me out of bed.... I looked out the windows. Flames were shooting straight up and seemed mountainous. The ship [*Pedernales*] just seemed to break apart. Flaming oil spread over a wide area under a steady wind. I could hear cries out in the water, which I learned were badly infested with barracudas.<sup>22</sup>

No shore installations returned fire. The crews of the 37-mm guns recently set up at San Nicolas Wharf could not see through the smoke and fire, while those at Camp Savaneta, about five kilometers up the coast, could not be brought to bear. The larger 155-mm American guns with ranges of at least 20 kilometers were still lying on the docks. A complete blackout of the island followed in short order.<sup>23</sup>

At sea, the British tanker *Hooiberg* had just arrived off San Nicolas when suddenly, in the distance, the crew saw the *Pedernales* and the *Oranjestad* blow up. Its captain realized immediately that his ship was in danger and ordered the helmsman to turn the ship about to steam back in the direction of the Gulf of Venezuela. After running southwest for about three hours, *Hooiberg* turned around and returned to Aruba, making port at 8 a.m. The crew was aghast to see the immense wreckage of the two ships and the smoke and damage at some of the installations.

Up the coast at Dakota Field, word of the attack was slow to arrive. A Dutch guard reported that guard posts at the army base near the refinery at San Nicolas were under fire and that the refinery was also under fire and apparently burning. A single A-20 Havoc from 59<sup>th</sup> Bombardment Squadron took off at 2:30 a.m. The pilot soon radioed back that he could see ships burning “in the harbor and oil spread over the sea was also burning,” but the crew did not see any tracer or other signs of gunfire from the sea.<sup>24</sup> Acting for General Andrews, Captain Bruskin ordered the A-20 to keep flying over the harbor and the refinery until daylight. At about 3:10 a.m., a second A-20 took off on a submarine search to the west of the island. Reports came in to Dakota Field that a tanker was on fire about 45 miles southwest of Aruba. The second A-20 was sent over to investigate; the crew saw “a ship on fire [the British lake tanker *Monagas*] and being abandoned.”<sup>25</sup> The tanker had been torpedoed by Jürgen von Rosenstiel’s *U-502* about an hour after Hartenstein’s attack on San Nicolas. The long night of the tankers had already begun.

Hartenstein’s attack was a shocking surprise, though as early as January 26, 1942, a US Navy naval intelligence report had reached headquarters, Caribbean Defense Command, in Panama that a large number of German submarines were entering the Caribbean. Although there had been no solid intelligence as to where they were headed, it warned that “attacks on tankers from Venezuela, Curaçao and [the] vicinity of Trinidad [are] possible.”<sup>26</sup> The warning went unheeded; when war came to the southern latitudes in February 1942, German submarines, not Japanese aircraft carriers, had proved the real menace.

