WALK THROUGH THE U-505 SUBMARINE EXHIBIT

Take a journey that begins 60 years ago in a turbulent time for the world and ends with a message of courage, hope and reconciliation.

World At War

Guests are introduced to a time when the world was at war, and Hitler was hungry for domination. Frontpage headlines (copies of real U.S. newspapers from that era) call out the milestones of the conflict: "Hitler Strikes Again," "Fate of France in Hilter's Hands," "Japan Attacks Pearl Harbor." Archival photos are dotted among the dramatic headlines.

Historical film footage, narrated by veteran journalist and documentarian Bill Kurtis, details the events that led the United States into the fray of World War II. It is in this area that guests also see *World at War*— the first of four striking murals that help tell the story of the U-*505*, painted by renowned maritime artist Richard Moore.

Battle of the Atlantic

Through continuing film footage, guests learn about the use of German Unterseeboats, or U-boats, as a deadly tactic to keep necessary supplies from the Allies. A wall timeline emphasizes the extent of the U-boat's threat. In 1942, the U-boats sank an incredible 1,150 Allied ships, sending thousands of men to their deaths and a staggering 7.8 million tons of vital war supplies to the bottom of the Atlantic. To illustrate this staggering statistic, guests observe a life-size representation of two Merchant Marines floating at sea, awaiting rescue, and their ship sinking from a U-boat's torpedo. Above these lone figures, the *Battle of the Atlantic* mural vividly details the fate of their ship.

Plan of Action

Small task groups were formed to ferret out and sink the menacing U-boats. Called *Hunter-Killer* groups, they usually consisted of one small escort aircraft carrier and four or five destroyer escorts. Guests are introduced to Navy Captain Daniel Gallery, a Chicagoan who led the Hunter-Killer Task Group 22.3. This group consisted of the aircraft carrier USS *Gaudalcanal*, five destroyer escorts and more than 800 men. Gallery was determined not only to find a German U-boat as it was prowling the seas, but also to capture it. A U-boat in the hands of the Allies would provide critical information about German communication codes and weaponry technology. The *Plan of Action* mural serves as a backdrop in this area.

WAVES

Here guests are warned that they are "Entering a Top Secret Area" in which "Naval Intelligence Personnel Only" are allowed. World War II propaganda posters echo the gravity of the situation with cautions like "Loose lips sink ships!" Guests then turn a corner and encounter F-21, the Navy's secret tracking room staffed heavily by the WAVES: Women Accepted for Volunteer Emergency Service. In this room, WAVES documented and mapped the locations of intercepted U-boat radio transmissions that came in from Allied listening posts throughout the Atlantic. They shared their critical, life-or-death intelligence with Allied ships and Task Groups like the 22.3.

Guests witness a dramatic representation, created with a unique optical effect, of what took place in F-21 in the first days of June 1944. The recreation of the events inside F-21 is alternated with footage (both archival and re-enacted) of what Task Group 22.3 was facing during those same days and hours. As the

WAVES pick up the presence of the U-505 and inform Gallery and his men about their proximity to the U-boat, guests are part of the action.

Away Boarders!

Guests will now find themselves standing on the fair-weather bridge of the USS *Guadalcanal* as it—and the six ships from Task Force 22.3 —patrol off West Africa on Sunday, June 4, 1944. The bridge has been recreated with authentic World War II-era equipment, and guests also see a life-size model of Gallery and Lieutenant D.E. Hampton as they scan the sea for signs of the U-505.

That morning, the destroyer escort USS *Chatelain* made sonar contact with the submerged U-*505*, only 600 yards away. With two Wildcat fighter planes circling overhead and firing into the water to mark the sub's location, the destroyer made several depth-charge attacks. Guests are steeped in the suspense of that summer day through film footage that is shown on a screen above the "ship" rail. Beneath the floor, installed subwoofers allow guests to both feel and hear the action taking place before them.

Six-and-a-half minutes after the USS *Chatelain's* first attack, the U-505 surfaced and its crew surrendered. The attack, however, had jammed the U-505's rudder. The sub was out of control and the German crew was in the water. Then came Gallery's call, "Away Boarders!" This order sent a volunteer party of nine men from the USS *Pillsbury* into the Atlantic in a whaleboat. Their goal was to board, secure and ultimately capture the U-505.

The U-505

Now guests finally come "face to face" with the monumental vessel—the Allies' coveted prize. For the first time, guests are able to view all 252-feet of the U-505, and its deck, from above. The vessel, with a newly refurbished exterior, painstakingly returned to its original colors, is lighted with three alternating light patterns to look as if it is still provling the depths of the Atlantic.

In this area, which overlooks the sub, the brave men of the boarding party are profiled. Through audio phones, guests are able to listen to recently recorded oral histories from six veterans who were there at the capture: Zenon Lukosius, Wayne Pickels, Phillip Trusheim, Gordon Hohne, Earl Trosino and D.E. Hampton. In their own words, they detail their thoughts and actions during the extraordinary capture. Behind historic photos of these men is the final mural, the *Hero Mural*. A tribute to the U-*505*'s legendary capture, it depicts a scene of the boarding party on the conning tower of the U-*505*.

Guests will slowly wind their way down a ramp that traces the length of the sub and leads to the exhibit's lower level. If guests have purchased tickets for the limited capacity on-board tour, they will now be able to enter the sub itself, for a 15-minute, guided tour that details what life was like for the crew of the U-*505*, as well as what happened on the fateful day when the vessel was seized. The sub tour has been enhanced with realistic lighting as well as an audio soundtrack that recreates the environment on this war vessel. As they make their way through the sub, guests will hear actual music the crew listened to on board, recorded from records salvaged from the boat; the authentic hum of the U-*505*'s diesel engines; the barking commands of the German skipper; and the pounding depth charges that rattled both boat and crew.

At the exit to the on-board tour, guests discover what happened to the U-*505* immediately following its capture. The boat was towed to Bermuda and the capture remained secret for more than a year. They also will learn the fate of the German crew: All but one survived and were taken to a prisoner-of-war camp in Ruston, Louisiana. Believed by their families to be lost at sea, they were released in 1945 to make the journey home to Germany.

Commanding a Submarine

Interactive challenges surround the sub and help to explain how a submarine like the U-505 navigated the seas, avoided detection and sunk the enemy. These include:

Crack the Code: Guests can decipher and encipher covert messages with the use of the complex Enigma code—the code by which German forces communicated in secret. Enigma messages can be transmitted from guest to guest via four interactive computer stations or sent to friends and family via the Internet.

Dive Trainer: In a recreation of the sub's control room, two visitors at a time attempt to maneuver the sub through a controlled dive by adjusting the bow and stern dive planes, while battling against dangerous depth charges that could force the vessel to surface.

Life On Board: Visitors are exposed to the sights, sounds and feel of the sub's close quarters during wartime. They can take a bunk, see the sub's tiny galley, climb through the hatch and hear the background sounds that represented life on patrol in 1944.

On Patrol: A recreated portion of the sub's conning tower is complete with both an attack and a navigational periscope. Through the use of these periscopes, guests attempt to launch a torpedo as well as determine their vessel's bearings and decide whether it is safe to surface.

Buoyancy Challenge: Here, visitors will learn about buoyancy—the principle by which a submarine is able to adjust its depth. In an 11-foot tall tank of water, visitors experience a timed challenge to alter the buoyancy of a model sub by adding water or air to its ballast tanks.

Throughout this sub level are 13 different display cases that present nearly 200 significant artifacts related to the U-*505*'s capture, including the authentic Enigma Machine, a T5 Acoustic Torpedo, an anti-aircraft gun, personal effects of the German crew and even cans of food discovered recently inside the U-boat's hull.

At the west end of this floor, a panel chronicles the U-*505*'s original journey to the Museum in 1954. Guests can then pay a visit to the Gallery/Lange Theater, where a short video highlights the reconciliatory meeting in 1964 at the Museum between Captain Daniel Gallery and Harald Lange, the German captain of the U-*505*.

A guest's U-505 voyage now comes to an end. Upon leaving, an elegant Tribute and Memorial Area features multiple displays that honor the men and women who made the tale of the U-505 possible. All 2,200 courageous members of Task Force 22.3 are represented, as are the Merchant Marines, the WAVES and the crew of the U-505.

The Museum of Science and Industry, Chicago (MSI), The Museum of Science and Industry, Chicago (MSI), one of the largest science museums in the world, offers world-class and uniquely interactive experiences that inspire inventive genius and foster curiosity. From groundbreaking and award-winning exhibits that can't be found anywhere else, to hands-on opportunities that make you the scientist—a visit to MSI is where fun and learning mix. Through its Center for the Advancement of Science Education (CASE), the Museum offers a variety of student, teacher and family programs that make a difference in communities and contribute to MSI's larger vision: to inspire and motivate children to achieve their full potential in science, technology, medicine and engineering. Come visit and find your inspiration! MSI is open 9:30–4 p.m. every day except Thanksgiving and Christmas day. Extended hours, until 5:30 p.m., are offered during peak periods. The Museum is grateful for the support of its donors and guests, who make its work possible. MSI is also supported in part by the people of Chicago through the Chicago Park District. For more information, visit msichicago.org or call (773) 684-1414.

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