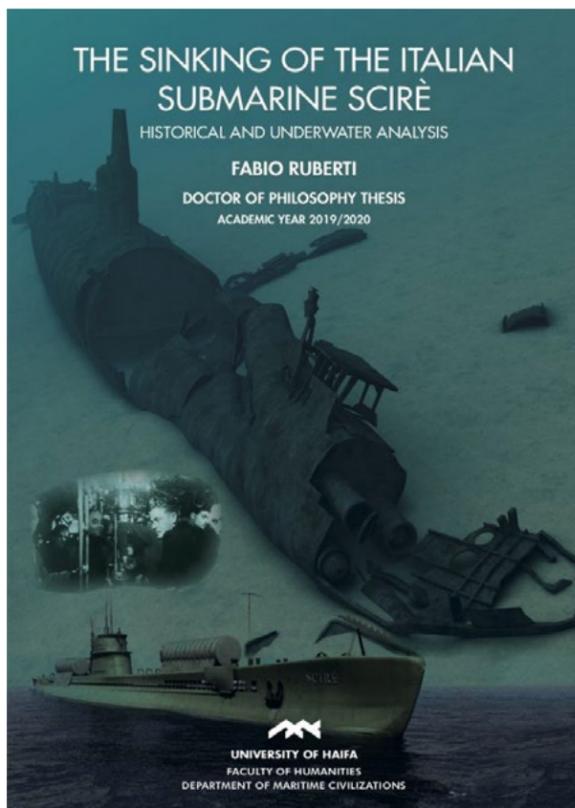




IANTD Expeditions diver on the Scirè submarine wreck

Text by Cesare Balzi
Photos by Alberto Dabalà, IANTD S.r.l.

Today, the wreck of the Italian Regia Marina submarine *Scirè* lies at a depth of 33m in Haifa Bay and four IANTD expeditions were necessary to survey the wreck, collect measurements for a 3D reconstruction and accomplish historical, cultural and scientific research.



Cover of *The Sinking of the Italian Submarine Scirè*, written by Dr Fabio Ruberti



Scirè Wreck

— IANTD Expeditions to the WWII Italian Submarine

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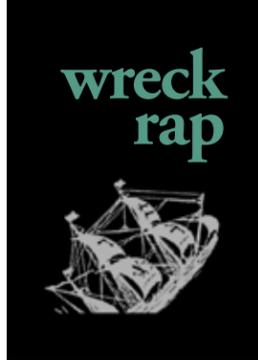
The sinking of the Italian submarine Scirè: Historical and underwater analysis is the title of the doctoral thesis by Dr Fabio Ruberti, president of IANTD Srl, which was published by the Faculty of Humanities in the Department of Maritime Civilizations

of the University of Haifa in Israel. Twelve years of research and seven years of study resulted in this 355-page thesis divided into five parts, of which four are related to the historical analysis and one to the archaeological and underwater

analysis of the wreck.

The historical part, in addition to a precise contextualization of the events, unveils unknown aspects, or little-known ones; while the underwater and archaeological part frames the needs and the

protocol to be used in the study of contemporary iron wrecks of great historical value—in this case, of a famous submarine as well as the urgency of its institutional protection. A multidisciplinary method has provided an outstanding opportunity



wreck
rap

Starboard view of the 3D reconstruction of the *Scirè* wreck, in color (right); Four historical photos of *Scirè* and her crew members (lower right)



F. RUBERTI / C. CESTRA / © IANTD S.R.L.

to verify the existing data, add more details and enlighten on this important historical event.

Historical background

The *Scirè*, built in Cantieri Odero Terni Orlando Muggiano La Spezia shipyard, was named *Scirè* after a location in Ethiopia, marking an Italian victory in 1936 during the Abyssinian War. It belonged to the "Series 600 Class Adua" standard 680/698 tons and was launched on 6 January 1938, entering the service of the elite X Flottiglia MAS. The *Scirè* belonged to the Italian Navy Special Forces unit called X MAS (Decima MAS). This unit was the fiercest enemy of the Royal Navy in the Mediterranean, and the *Scirè* was its spearhead. Using innovative underwater warfare in covert operations, the actions of the X MAS, particularly those of the *Scirè* in Gibraltar and Alexandria, made British harbors unsafe, at least until mid-1943.

After three unsuccessful attacks, operation BG 4 took place in Gibraltar on 20 September 1941, when *Scirè* divers successfully attacked the tanker *Fiona Shell* (2,444 tons), the armed cargo ship *Durham* (10,893 tons) and the military



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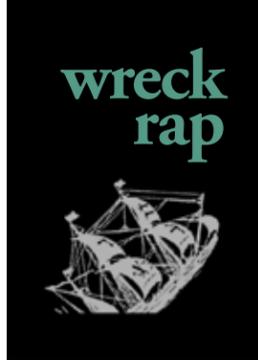
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Dr Fabio Ruberti talks to the Ehud Galili about the Scirè 3D reconstruction plans (right); IANTD Expeditions members Edoardo Pavia and Cesare Balzi viewing Haifa Bay (far right); Launch of the Scirè on 6 January 1938 (below)



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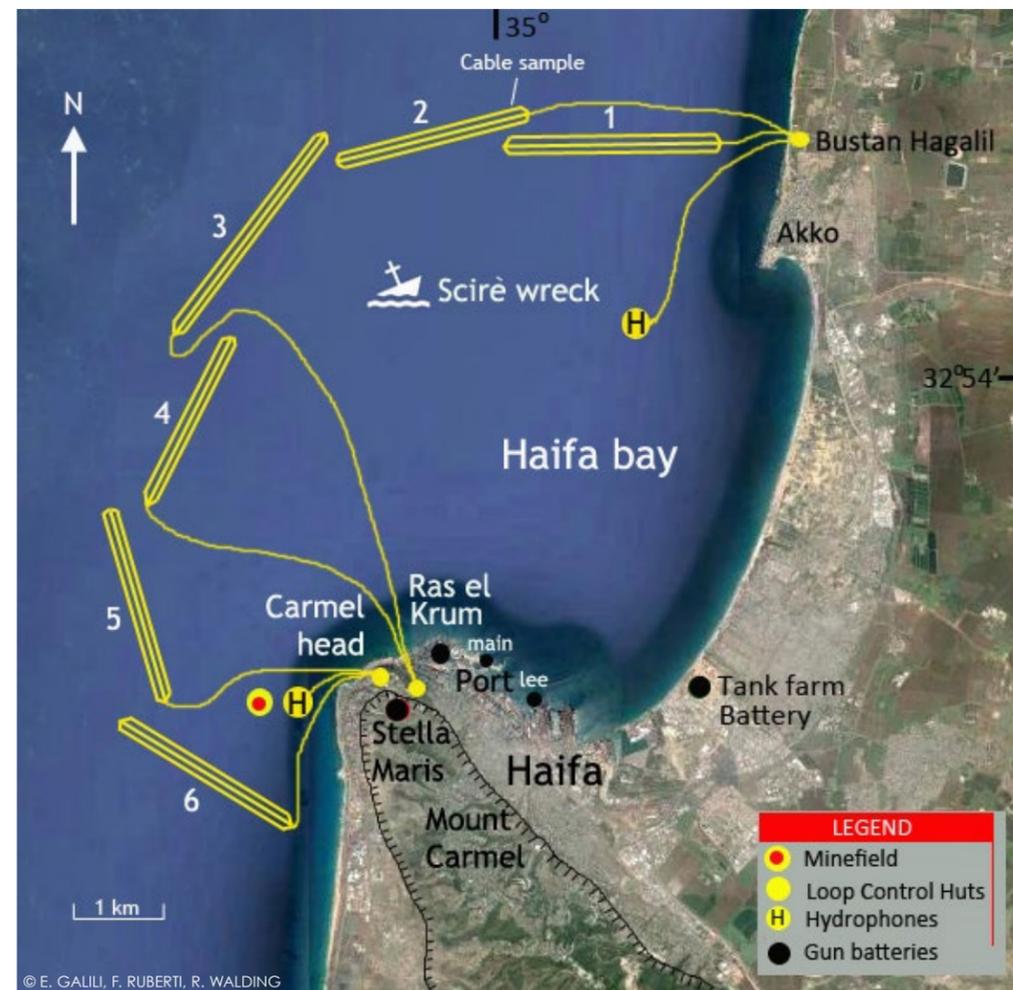
PHOTO COURTESY OF FINCANTIERI CANTIERI NAVALI ITALIANI S.P.A.



Diagram of the defences of the Haifa port in 1942, with the locations of the indicator loops (right)



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detectors, indicator loops, mines, traps and gun batteries.

It was British superiority in intelligence warfare, however, that was the winning weapon. In fact, Ultra Secret was able to intercept and decrypt Italian and German coded messages

that allowed the British to locate and sink the Scirè. The submarine was lost on 10 August 1942 off Haifa.

Much about the fate of the Scirè remained unknown. Witnesses who participated in the event told different and contradictory stories. Italian publications in the years immediately after WWII left doubts concerning the fate of the Scirè. It was rumored that the Royal Navy had previous knowledge of the attack.

The archive research

Due to these reasons, Ruberti

decided to begin researching the wreck in 2008 to prepare for the first expedition to the wreck site. He planned to research historical archives first and then continue in the field through underwater surveys and study of the wreck.

He started in Rome at the Historical Archive of the Italian Navy, searching for all documents involving the facts that led to the sinking of the Scirè. But all the documents he found did not reveal anything new or clarify the reasons for the submarine's demise, containing only facts that were already well known. Ruberti then decided to research the British archives, because he supposed that since British superiority in intelligence warfare was the winning weapon against the Scirè, the relevant documents could only be found there.

Since the British Ultra Secret machine was able to intercept and decrypt Italian and German coded messages, Ruberti decided to begin the research at Bletchley Park, the former code-breaking base of the British Secret Service

during WWII. It was the right choice because almost immediately he discovered the true reasons for Scirè's demise.

While examining G.C. & C.S. Naval History, Vol. XX, "The

Mediterranean 1940-1943," Ruberti read a footnote on page 216: "On 10 August, the parent submarine Scirè was sunk off Haifa with her human torpedoes aboard. Her intention and her approach had

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Divers taking measurements for the 3D reconstruction of the *Scirè* wreck.

been elaborately followed by Special Intelligence, and she was destroyed according to plan," followed by a series of alphanumeric identifications of decrypted Italian and German messages. This declaration revealed the true reason for *Scirè*'s demise, generally unknown until now.

Ruberti's research continued at the National Archives in Kew, London, where he searched for the related documents mentioned with alphanumeric identifications in the G.C. & C.S. *Naval History* footnote. The task was not an easy one, but at the end of two years of research, 48 documents were found, revealing all the details of the interception and decrypting of Italian and German messages related to Mission SL1 against Haifa's harbor and a

report of the last moments of the *Scirè* submarine.

The end of *Scirè*

The British intercepted almost all the Italian messages between the Italian Navy high command ("Supermarina") in Rome and the Eastern Mediterranean Admiralty in Rhodes, and the messages of the German X. Fliegerkorps, whose task was the aerial reconnaissance over Haifa. They intercepted the submarine twice during her course to Haifa: first, southeast of Cyprus, then off the border between Lebanon and British Palestine.

The submarine was then caught by an innovative antisubmarine system of the Haifa defenses called Indicator Loops. She was chased by the armed trawler HMS *Islay* and depth-charged. She was hit

and surfaced for surrender, but the coastal gun batteries over Mount Carmel bombarded her to death.

This information is what came out of the recovered documents. Ruberti then published these findings in Italian magazines and scientific journals.

The British had located the wreck site immediately after the sinking of the submarine. They sent hard-hat divers down to inspect her with the intention of recovering an SLC (slow-running human torpedo) but were unsuccessful because the mission used only attack divers with limpet mines. When the British left Palestine in 1948, the location of the wreck site was lost. It was found again in 1952 by Israeli Navy officer Yohai Ben Nun, located in the shipping lane accessing the port of Haifa.



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Edoardo Pavia doing a pre-dive CCR check (above); IANTD Expeditions dive team (top); Diver at a prow structure of Scirè, with four torpedo tubes in the background (left)

Since our first expedition in 2008, we have been fortunate to have the assistance and support of the Israeli underwater archaeologist Ehud Galili and the help of some local divers to facilitate our underwater tasks.

The IANTD expeditions

The first expedition took place in 2008. The initial task was to survey the wreck and take measurements, identify the signs and type of damage the vessel suffered when it sank, and assess the condition of the wreck. We accomplished all of our goals in that first expedition.

Afterwards, Ruberti evaluated the high importance of the wreck in Italian history. The *Scirè* had been honored with a Gold Medal for Military Valor for bravery during war missions. So, he decided to use archaeological methods to further study the sub's wreck site with the goal of generating a detailed 3D reconstruction.

The 2011 expedition's aim was to take

more detailed measurements in a survey, but during the making of the 3D model, we realized that some measurements were missing, and others were not precise enough. As a result, another expedition would be necessary in order to generate a correct 3D reconstruction of the wreck site.

In the expedition of 2015, our team was sponsored by the Italian Foreign Ministry, the Association of Italian Navy Special Forces and the Institute of Rescue Medicine. A few days before departure, the Explorer Flag n°211 arrived, and we had the honor of carrying the flag with us on the expedition.

The most difficult part of the wreck to measure and reproduce was the starboard bow, because this is where the depth charges and the gun shell hit the vessel. To accomplish the task, a detailed plan of measurements, pictures and video shooting was implemented. A set of detailed underwater slates with the spe-

cific part to be measured were appositely prepared. Israeli underwater archaeologist Galili assisted us in our work.

On the first day of the expedition, we visited the remains of WWII British defenses in Haifa. In the following days, we accomplished all of our planned dives and goals. During the last dive, two Israeli underwater photographers, Dan Ashkenazi and Shlomi Palnitsky, joined us.

The data collected is now being used to study damages from the sinking and in finally producing the 3D reconstruction, which is in process. Presentations and articles are planned in order to spread the knowledge we have acquired with our exploration and study of the wreck of the *Scirè*.

After the success of the previous expeditions in 2008, 2011 and 2015, IANTD conducted its fourth expedition to the wreck of the glorious submarine *Scirè* in 2017, in collaboration with the Leon Recanati Institute for Maritime Studies at

the University of Haifa. This expedition's goal was to carry out scientific surveys and analysis, and to train PhD students of underwater archeology at the University in mapping and survey techniques of important historical wrecks.

Diving the wreck

Accompanied by my dive buddy Alessandro, I began the descent into the blue, with excellent visibility and a pleasant current, which helped keep the water clear of a thin veil of plankton. In fact, as the silhouette of the *Scirè* appeared, I felt deep emotion, the moment I laid my eyes on the submarine tower.

After this poignant moment, Alessandro and I began to carry out the tasks assigned to us in the bow area, moving with the utmost attention and the usual caution because, as our surface's assistant had reported to us earlier, we soon found ourselves face-to-face with the heads of two torpedoes, which jutted out

SCIRÈ FACTS

- TYPE: Small cruising submarine
- CLASS: 600 – Adua series
- OWNERSHIP: Regia Marina
- SHIPYARD: OTO Muggiano (La Spezia)
- SETTING: 30 January 1937
- LAUNCH: 6 January 1938
- ENTRY INTO SERVICE: 25 April 1938
- DISPLACEMENT: 697,254 tons at the surface; 856,397 tons underwater
- LENGTH: 60.18m overall
- WIDTH: 6.45m
- DRAFT: 4.66m
- OPERATING DEPTH: 80m
- PROPULSION: two 1,400 hp Fiat diesel engines and two 800 hp Magneti Marelli electric motors

SPEED: 14 knots at the surface; 7.5 knots underwater

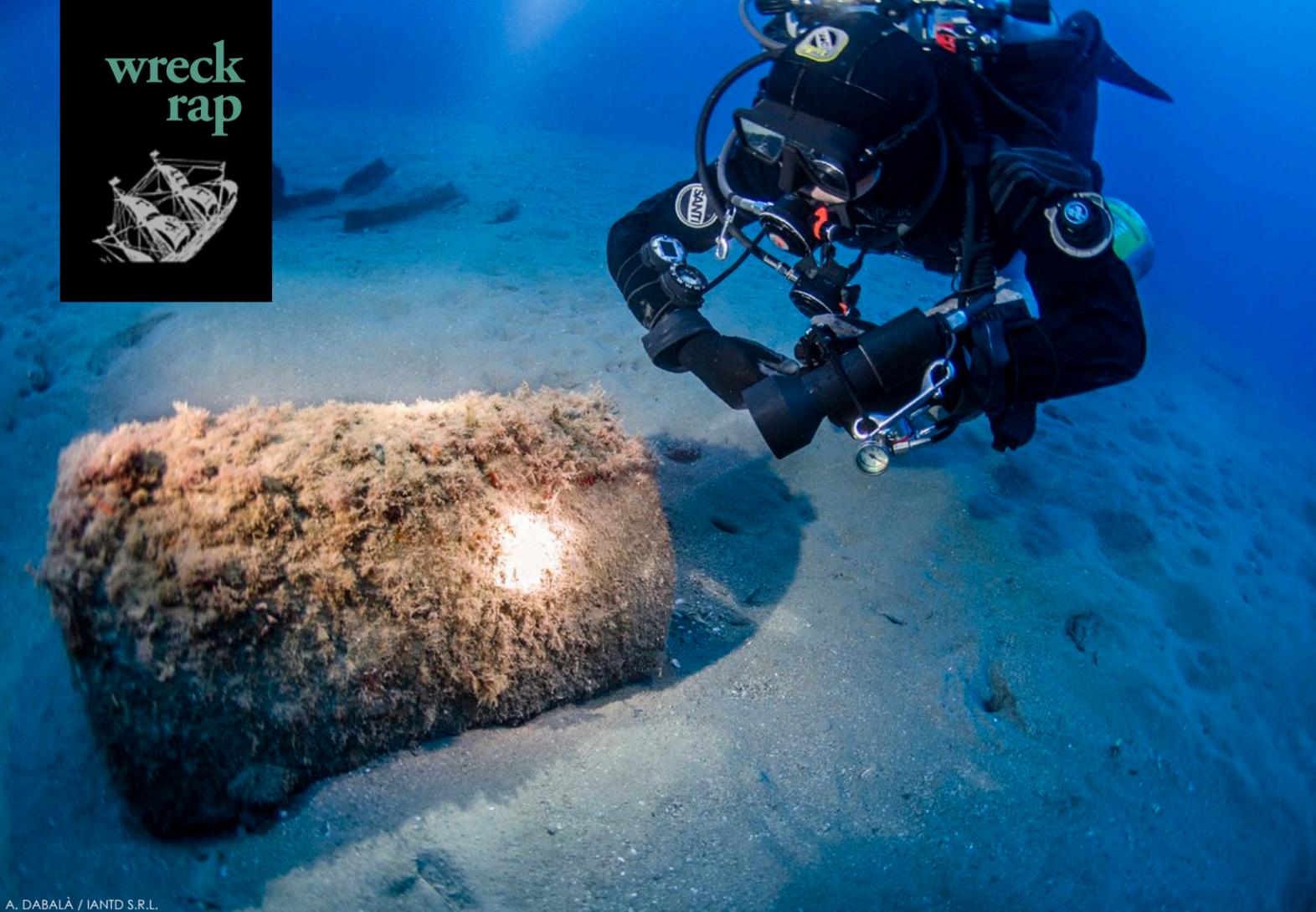
RANGE: emerging 2,200 nautical miles at 14 knots or 3,180 nautical miles at 10 knots; 7.5 nautical miles underwater at a speed of 7.5 knots or 74 nautical miles at 4 knots

CREW: 44 including six officers (table)

ARMAMENT: four 533mm torpedo tubes in the bow, two 533mm torpedo tubes in the stern, a 100/47 model 1935 cannon (152 rounds), two single 13.2mm Breda model 31 machine guns (3,000 rounds) and six torpedoes

from their respective launch tubes. From this point forward, the superstructure of the boat was no longer recognizable, but gave way to a mass of twisted metal sheets submerged in the sand, as well as a tangle of cables and metal scattered





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Diver inspecting an inert MK VI Israeli depth charge on the port side of the bow of the *Scirè* (top left); Divers on the bow of the wreck (top right); Author Cesare Balzi kitted up for a dive on the wreck of the *Scirè* (left)

all around. Thanks to the good visibility, I recognized the prow wheel—that is, the forward end of the keel of the *Scirè*.

From this point, we began taking measurements, writing with a pencil on forex tablets, the results that were obtained with the use of a measuring wheel. As I moved towards the center of the submarine, I noticed the major damage done to the hull—fatal blows inflicted mainly by depth bombs. Before reaching the tower, I saw on the right side, a section of the hull where metal sheets had been bent by shock waves and clear signs of compression of the resistant hull due to the explosion of one or more charges. Afterwards, we noticed a large gash, about seven meters long, in the vicinity of the officers' rooms, further devastated by cannon shots.

In the 1960s, workers of the Perrotta company, commissioned by the Ministry of

Defense, had removed part of the navigating hull, the external hull at this point, to recover parts, which are now preserved and exhibited in various Italian museums. The access hatches to the submarine, on the other hand, were sealed and welded in 1984 by divers of the Italian Navy, to prevent penetrations by adventurous divers.

The wreck today lies on the sea bottom, tilted to the left at about 25 to 30 degrees. This posture was also confirmed with the use of a plumb line, which was dropped to the sea floor from the top of the tower, positioned at the center of the wreck.

Before ending our preset bottom time, I had time to detect some more details to add to the digital reconstruction of the *Scirè*. These included the number of rings of chain that wrapped the sub's stern (left in 2002 by the American Sixth Fleet in an attempt to lift the submarine); the untouched resistant

hull at the stern where there were two torpedo launchers with their hold doors closed; a depth helm and the blades of the left propeller, which protruded from the sand. Finally, during reconnaissance in the surrounding area, I identified three unexploded depth charges in the immediate area of the submarine, on the left side of the wreck, which were probably some of the 16 charges launched by HMS *Islay*. ■

For more information, email: iantd@iantd.info or fabio.ruberti@fiscali.it. To view the table of contents of the work and the abstract, go to: academia.edu.

REFERENCE:
RUBERTI, F., (2020). THE SINKING OF THE ITALIAN SUBMARINE SCIRÈ, HISTORICAL AND UNDERWATER ANALYSIS, UNIVERSITY OF HAIFA, APRIL 2020.



A Fairey Barracuda Mk II carrying an 18-inch (46 cm) aerial torpedo

British WWII torpedo bomber found in Norwegian fjord

Norwegian divers have localised the wreck of a Fairey Barracuda—a British carrier-borne torpedo and dive bomber, which saw extensive service during WWII, most notably the large-scale attack upon the German battleship Tirpitz on 3 April 1944.

On 22 February 1945, nine Fairey Barracuda from 821 Naval Air Squadron are launched from the aircraft carrier HMS *Puncher* in the North Sea on a minelaying operation along the western coast of Norway, or more specifically Karmsundet, which is a narrow strait south of the coastal town of Haugesund. Due to navigational error, the planes made landfall farther south than planned, near the town of Stavanger, where they were met with heavy anti-aircraft artillery.

Two of the planes made their way north along Karmsundet, flying very low over the water. At Karmsundet, the narrow strait just south of

Haugesund, they took fire from all sides, and one of the planes was shot down some 500-600m south of Salhus narrows. According to eyewitnesses, one of the crew managed to free himself from the wreck and cried for help, but a nearby German vessel did not come to his rescue. The two other airmen perished with the plane, which sank to the bottom. The other Barracuda was also shot down and crashed into a barn nearby, killing all three airmen.

The wreck was located in the middle of Haugesund shipping channel by local divers Tore André Apeland, Roy Drange and Lene Herigstad, using an ROV, the Norwegian dive magazine *Dykking* reports. The search was initiated after Apeland caught an oil tank from the plane in one of his fish-ing pots in September.

Kystverket, the Norwegian coastal administration that is responsible for coastal navigation infrastructure, is said to consider moving shipping lanes such that diving on the only known accessible wreck of a Fairey Barracuda becomes a possibility. The wreck lies at a depth of 33m. ■ SOURCE: DYKKING



A three masted ship, similar to WA08, which sank in the Thames Estuary, Essex, in the mid-to-late 19th century, is docked at the busy Southampton Docks, with other sailing vessels visible in the background (image dated 1878).

Mystery shipwrecks protected

Two well-preserved but unidentified shipwrecks, known as “GAD23” off Goodwin Sands in Kent and “WA08” in the Thames Estuary in Essex, have been protected.

The two wooden cargo vessels, which were involved in day-to-day merchant trading in slate and coal by river and sea in England in the mid-to-late 19th century, have been protected by scheduling. This means that recreational divers can dive them, but their contents are protected by law and must remain in situ.

GAD23

The GAD23 is also known as the “Bowsprit” wreck because the long spar that runs out of the sailing ship’s bow is still visible. Ropes were once tied to it to support the ship’s foremast.

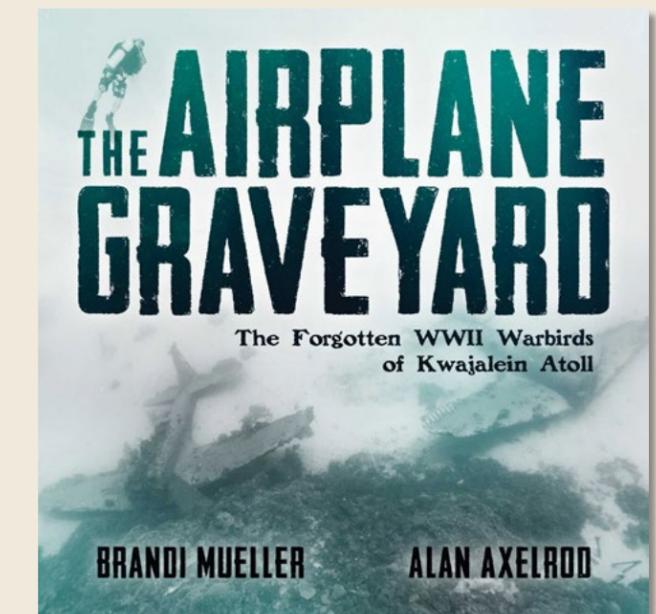
WA08

The mystery wreck WA08 discovered in the Thames Estuary in Essex is possibly the most intact post-1840 wooden cargo ship surviving in English waters. If the exact identity of the vessel could be established, it could shed more light on the Cornish slate trade post-1840.

Heritage Minister Nigel Huddleston said: “These shipwrecks serve to teach us about the legacy of Britain’s industrial past. I am pleased that these new protections will enable us to preserve them as we continue to learn more about the role they have played in our nation’s history.” ■ SOURCE: HISTORIC ENGLAND



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