

wreck
rap



Back to the Future
Panarea III
— GUE Helps Advance Underwater Archaeology

Text by Francesco Spaggiari and Alba Mazza
Edited by Michael Menduno. Photos courtesy of GUE





The expedition ship, *Pacific Provider*, off the coast of Stromboli (left); *Nomad* sub explores the Formingas Reef Wall (far left); Divers work near the amphora field (below)

This is a “black and blue” story of *Panarea III*, a 2,200-year-old shipwreck discovered in the Mediterranean just north of Sicily.

The Aeolian Archipelago is a group of seven volcanic islands north of Sicily, Italy. The islands are listed as UNESCO World Heritage sites both for their unique natural environment on land and underwater, and for their oral tradition.

The archipelago is named after Aeolus, the mythological Greek god of the wind, and perhaps for good reason. The wind, together with strong currents, unpredictable weather conditions, make the islands one of the most dangerous places for seafarers to navigate. Nonetheless, archaeological

evidence dating back seven millennia shows that the archipelago was the center of short and long distance commercial networks.

Mycenaean and Egyptian pottery show the islands were a prehistoric crossroads for people from all over the Mediterranean. Carthaginian, Greek, Roman, Arab and Norman archaeological artefacts show that the islands were crucial stepping-stones for naval battles and used as reference points for navigation through the Messina Strait.

This millenary history of conquest and sea supremacy is reinforced by the discovery of dozens of shipwrecks, especially around the islands of Filicudi, Lipari and Panarea. The island of Panarea in particular, which is surrounded by dangerous reefs, surface rocks

and deep underwater cliffs, made a perfect spot for deep-water shipwrecks.

An active volcanic archipelago north of Sicily, lava, obsidian and volcanic ash formed the Aeolian Islands more than 500,000 years ago. The Aeolian Sea, a legendary ocean popular in myths and legends, has an intense shade of blue and a spectacular deepness, taking our team of divers from Global Underwater Explorers (GUE) to depths of 130m in the Mediterranean.

The dream

Explore, dream, discover are the first words that come to mind when recollecting the great adventure our team experienced this summer in the sea of Sicily. It's a dream come true, a dream that



began more than 18 years ago when I accidentally came across in my first amphora. This chance find indelibly marked my life by lighting a fire that even today, years later, pushes me to go in

search of ancient civilizations. Since that day, when I was still called a boy, my journey as an explorer has evolved. I studied, I listened and I learned that the discovery is only a small part of

the research, an inevitable consequence of long, hard work that often takes one away from the sea, into the midst of books and university classrooms. Today I do not leave anything

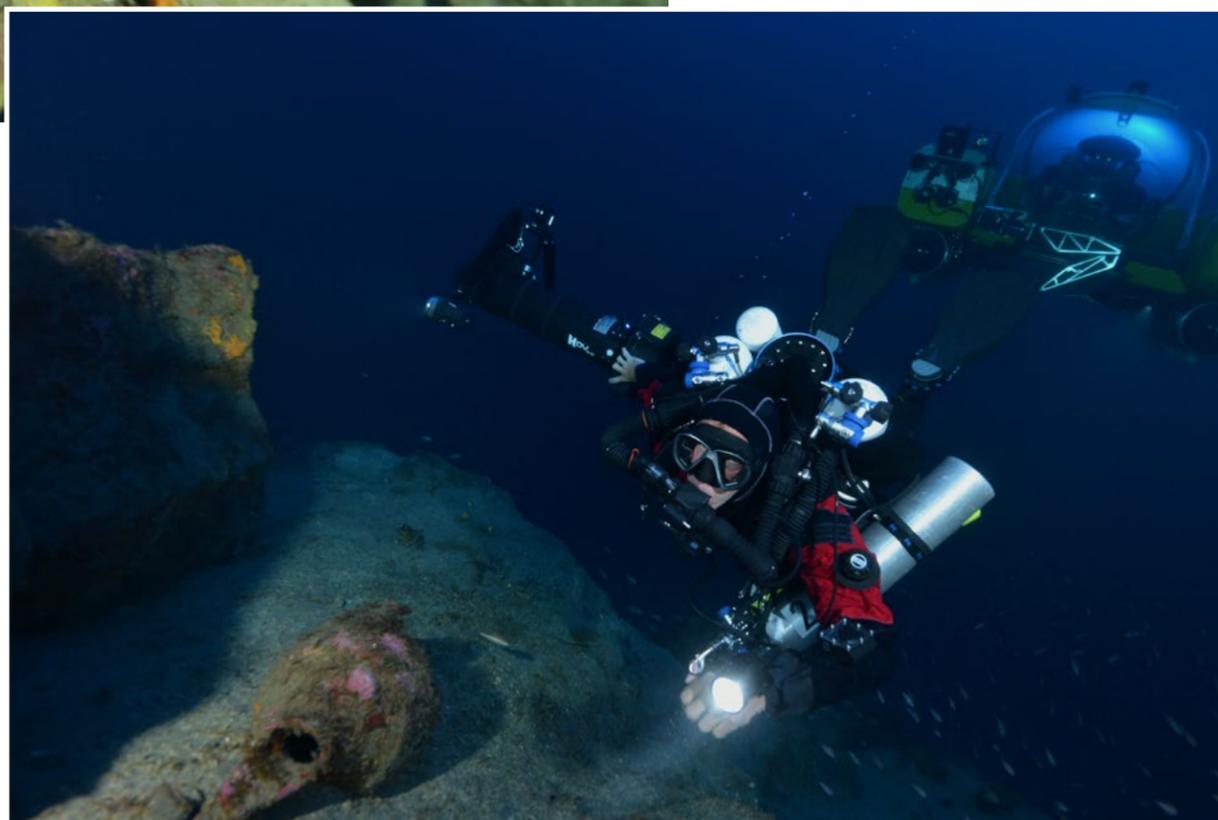


Divers clean pillar near amphorae (left); Diver and sub examine amphorae (below)

crucial moment in the history of the Roman Empire and the Mediterranean Sea.

In addition, *Panarea III* reveals the tragedy behind the wreckage, the loss of human lives. This is not an ordinary story of a master and its crew, the unexpected event of a storm and its subsequent shipwreck. The ship's history is a voyage into the most sacred beliefs of a community.

The seabed around *Panarea* was extensively investigated in 2010 by the Soprintendenza del Mare (the Regional Department for Underwater Heritage) directed by Sebastiano Tusa and Martin Gibbs, chief archaeologist of the Aurora Trust foundation. The preliminary geo-acoustic survey detected more than 20 sensitive targets between 50m



the loss of very expensive commercial cargo, the shipwreck also reveals new and unexpected commercial networks, which shed light on the social, political and military dynamics at

and 150m. The *Panarea III* was one of them.

Untouched for 4,200 years
The shipwreck is positioned on a sandy

to chance, and this does not limit my emotion and my desire to discover but rather intensifies it, because it is only then, when you know you have a chance, that you really enjoy and understand the deep meaning of an emotion.

Now when I see a wreck of a Roman or Greek ship from more than 2,000 years ago, I can enjoy every single detail of that time capsule, which contains within itself a bit of human history.

Diving into the future

What happened this summer represents the future of underwater archeology, and I say this without presumption, because what we achieved was the result not only of training, but of years invested by participants, in time and resources, to accomplish this feat. We created a team of explorers that for the first time saw action at the same time as researchers and government institutions, by using innovative technologies.

The team conducted the study of two ships, Greek and Roman, with the aid of Triton submersibles. Scientists were able to dive with no time limits and study live wrecks—a unique experience that allowed us to collect an amazing array of data and findings.

And this was just the beginning. A collaboration between Global Underwater Explorers (GUE) and the Sicilian government is underway to develop an ambitious research project of exploration and study of deep wrecks and water management in the Aeolian Archipelago. The project sets the stage for the beginning of a new era of underwater archaeology.

The ship

Panarea III is not only the material evidence of economic damage due to

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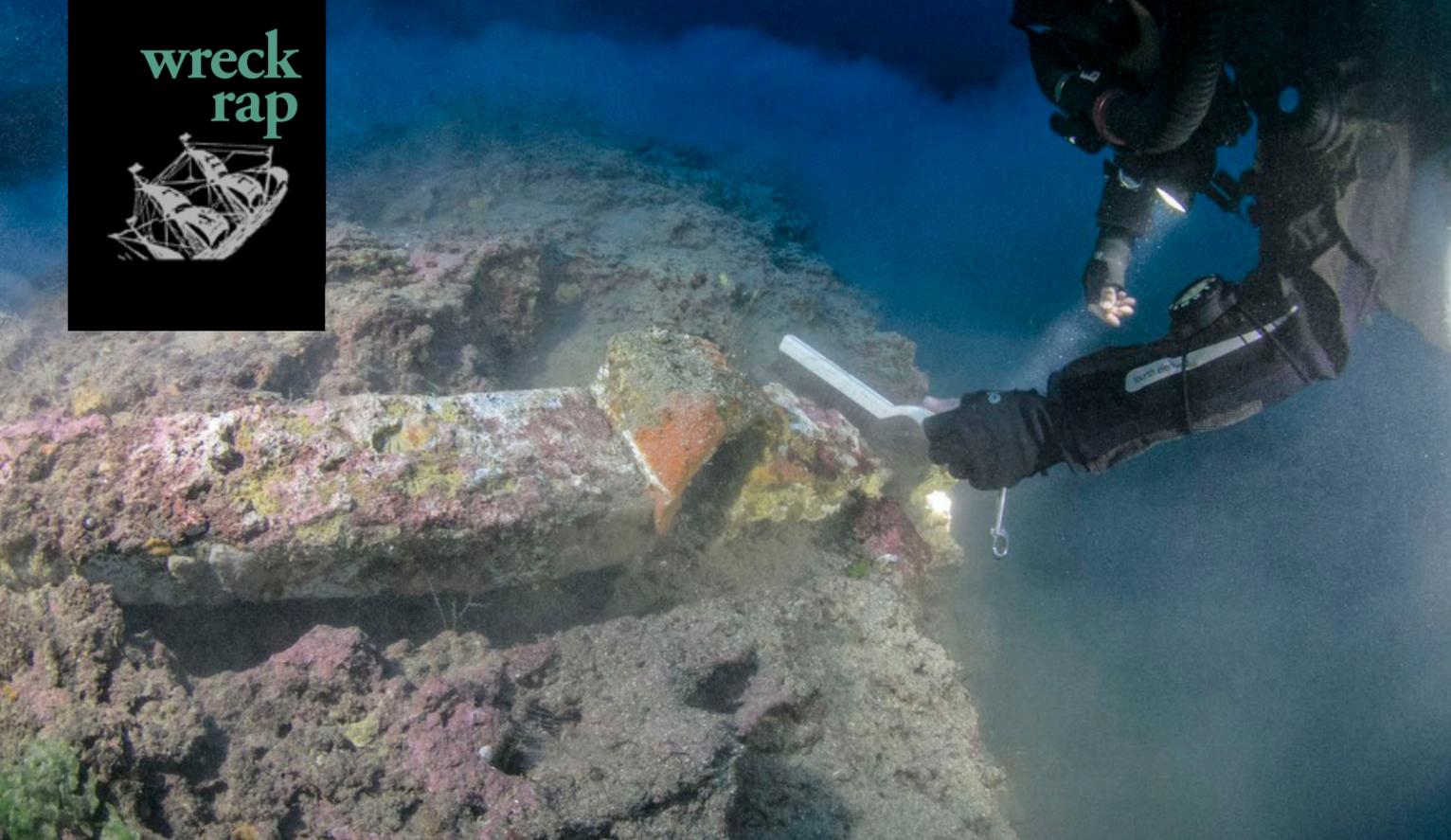


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Diver documents artifacts at *Panarea III* shipwreck site

platform at 130m, near an isolated area of volcanic rock. The archaeological site, untouched for more than 4,200 years, appears out of the blue as an oval-shaped assemblage of hundreds of amphorae and other ceramic containers. In addition, the lead part of the wood and lead anchor has been identified on top of the volcanic rock. The remains of the wooden structure of the shipwreck haven't been found so far; they are most likely resting under the amphorae layer.

The cargo was composed of several archaeological artifacts. There are wine amphorae from Campania and Pompeii; Punic amphorae from Carthage or from Sicily, whose contents are still unknown; and there are plates, cups and stone mills.

One of the most interesting finds of the *Panarea III* shipwreck was a sacrificial altar. The uncertainties and perils at sea, especially in this area of the Mediterranean Sea

and the Messina Strait, required the protection of the gods. The altar was used to perform religious ceremonies to protect the voyage, and practices often required sacrifice of small animals such as birds.

The spectacular discovery of a rare and expensive object like the sacrificial altar sheds light on the most intimate religious aspect of early navigations. The altar, decorated by sea waves and a mysterious inscription in Greek letters on the base, is currently under investigation by Soprintendenza del Mare and the University of Sydney.

The preliminary investigation suggests that the ship was sailing from southern Italy towards Sicily (or vice versa) approximately during the late 3rd century BC or the beginning of the 2nd century BC. This is an important period in the history of the Mediterranean Sea and the Roman Empire. It is the time of the Second Punic War (218-201 BC) and the battles be-

tween the Romans and the Punics for sea supremacy.

The ship could have belonged to an allied town of Campania (Neapolis, Capua, Velia or other Greek-speaking town) supplying the Roman war fleet with food, or maybe it was a supply vessel to the fleet of the Roman general Claudio Marcello who conquered Syracuse in 212 BC, where Archimedes was killed. However, the ship could also have been a merchant ship owned by a wealthy merchant, trading wine or oil from a Greek-speaking town in the area of Naples.

The reason that the ship sank was likely due to the dangerous reefs and surface rocks near the island of Panarea. The unpredictable weather conditions and the difficulty of finding protected bays made even the easiest journey through these islands challenging to navigate.

The *Panarea III* shipwreck is one of the most important discover-

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ies of this decade, not only as an experimental site for the improvement of deep-sea technologies and techniques for scientific archaeological investigation, but also as an important piece of information, which sheds light on a

crucial moment in the history of the Roman Empire, and the people of the time. No matter if they were sailors, masters or generals, friends or enemies, through sailing, praying, fighting, they all shared a common sea: the Mediterranean. ■

Francesco Spaggiari is a professional technical diver and instructor for GUE (Global Underwater Explorers) and Alba Mazza is an Italian archaeologist with the University of Sydney in Australia.



Diver at amphorae field of *Panarea III* shipwreck



Wreck Beer Recreated

In the summer of 2010, divers salvaged beer and champagne bottles from the 1840s found in an old shipwreck in the Åland archipelago. Based on extensive scientific analysis, Stallhagen has succeeded in recreating the historical recipe and produced a fresh version of the 170-year-old beer.



SCREENSHOT FROM YOUTUBE

The brew was reproduced thanks to elaborate research by Finnish and Belgian scientists who teamed up after the wreckage was discovered off Finland's Åland Islands in 2010.

Divers exploring 40 feet down found only five bottles of beer next to 145 champagne bottles—confirmed as the world's oldest drinkable bubbly—in the long-lost wreck. The government of the autonomous Åland Islands is the owner of the findings and had the beers analyzed at VTT Technical Research Center in Finland.

The research results showed that the old bottles contained two different types of beers.

The Finnish Stallhagen brewery has produced 120,000 bottles of what it has aptly named Stallhagen 1843, which CEO Wennstroem described as "refined and subtle". ■



STALLHAGEN

University of Delaware locates WWII plane wrecks in the Pacific

Project Recover is a collaborative effort to enlist 21st century science and technology in a quest to find the final underwater resting places of Americans missing in action since World War II.

In 2010 a research team at the University of Delaware was tasked with studying how typhoons destroyed coral reefs and how climate change is affecting the area around Palau. Two years into their research, they ran into volunteers with BentProp, a nonprofit group dedicated to finding and returning remains of U.S. World War II servicemen listed as missing in action. The group, led by Patrick Scanlon, has been combing historic records in search of missing aircraft information for the last 20 years.

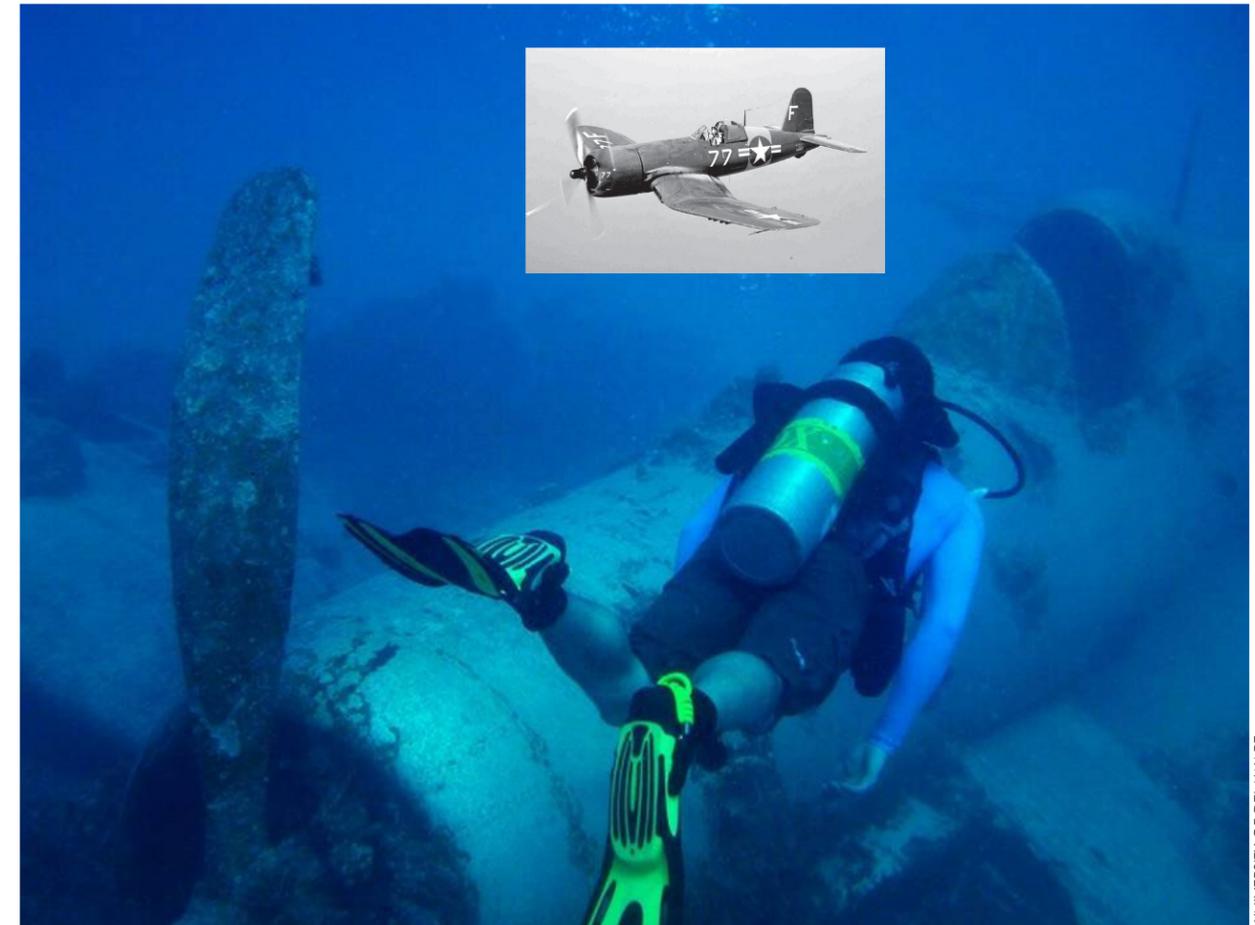
As the scientists and the BentProp volunteers talked, they figured out that the marriage of their high-tech research tools, along with the historic, archival records and interviews with people who witnessed the events at the time, might be a good match and thus increase the chance of finding the remains of U.S. aircraft and their crews.

In 2012 they formalised the cooperation and launched "Project Recover." In March 2014 the first two plane wrecks were found that still contained the remains of the crew. Project Recover does not see the raising of wrecks or their contents from the seabed as the group's

tasks, but when a wreck is located, they send all possible data to the U.S. Navy, which then must decide what to do.

It is estimated that about 78,000 U.S. servicemen disappeared without a trace during WWII. ■

The remains of a Vought F4U Corsair was located by the University of Delaware team in March 2014



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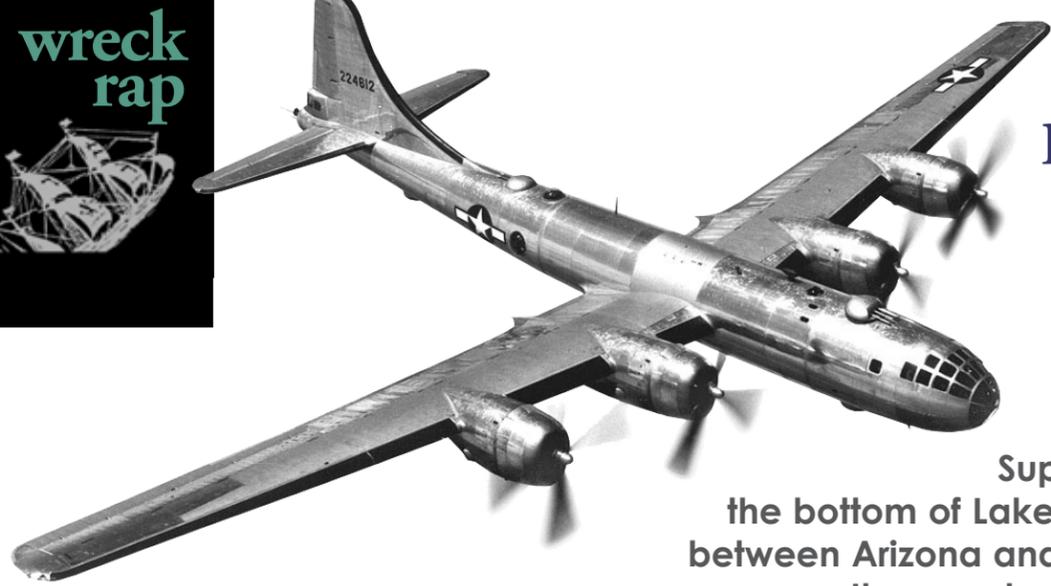
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U.S. National Park Service to allow dives on B-29 bomber in Lake Mead

The Boeing B-29 Superfortress has lain on the bottom of Lake Mead on the border between Arizona and Nevada since 1948. It was only rediscovered in 2001.

The B-29 Superfortress was a four-engine propeller-driven heavy bomber designed by Boeing and one of the largest aircraft to have seen service during World War II. It was a very advanced bomber for its time, with features such as a pressurized cabin, an electronic fire-control system, and a quartet of remote-controlled machine-gun turrets operated by the fire-control system in addition to its defensive tail gun installation.

Due to the B-29's highly advanced design for its time,

unlike many other World War II-era bombers, the Superfortress remained in service long after the war ended. The wreck in Lake Mead crashed on 21 July 1948, while engaged in high-altitude atmospheric research. The crew of five survived the crash.

In June 2003, archaeologists from the Park Service's Submerged Resources Center mapped and documented the wreck for management and educational purposes. The area has been closed to diving in order to

protect the historical resource.

Now the Park Service is looking for companies to lead scuba dives on the B-29 Bomber. The two-year commercial use authorizations (CUA) will include the authorized services of scuba dive guiding on the B-29 site, limited to 100 client dives during each 12-month period of the permit, and unlimited scuba instruction and scuba charter for other locations at Lake Mead National Recreation Area. ■

WWII British bomber found in Norwegian fjord

The almost intact wreckage of a RAF bomber shot down over northern Norway during a raid on the German battleship *Tirpitz* during World War II has finally been found 72 years after it went missing. The Halifax bomber was struck by heavy flak and made a successful crash landing 600ft down a water inlet in northern Norway.

The sunken bomber will be protected as a war grave because of the likelihood of the remains of the two airman still being on board.



Professor Martin Ludvigsen, of the marine technology department at the Norwegian University of Science and Technology, said: "It was a construction company which found the plane initially.

They didn't realise it was there or what it was. We went to the site and used a remote controlled underwater vehicle which dived to 180 metres." ■

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