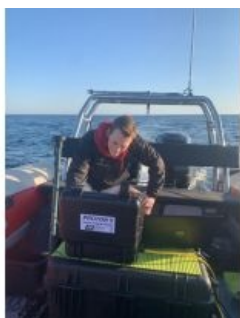


# How Magnetometers Help Dive Club Search for WWI Wrecks off South Africa



Why do people enjoy searching for shipwrecks? Perhaps it is for fame, fortune, historical significance or general curiosity. Some divers simply want to enjoy the beauty of the sea and enjoy the challenge.

According to NOAA, archaeology is the science of learning about past human behaviour by examining the physical remains left behind by people of the past.

Archaeological remains – including sites, structures, features and artifacts – provide tangible links to our collective human history and are glimpses into the social, economic and cultural evolution of our ancestors. Many sites, such as graves and temples, are deliberate; however, shipwrecks are typically accidental and therefore show the past as it really was. Unlike sites on land, many sunken ships are often left undisturbed. As such, shipwrecks are time capsules, preserving a single moment in time. By studying them, archaeologists can begin to understand the past. While archaeological research teaches us much about how sea travel has influenced the course of human history, scientists are also beginning to learn how sunken ships influence ecology in the deepwater marine environment: from the transfer of organisms from one body of water to another as the ship was transiting, to serving as places where marine life can colonize once a wreck has come to rest on the sea floor. The study of wrecks also teaches us important lessons about how currents, weather, technology and human error can impact the environment.



Reviewing the magnetometer read-outs.

## Why Magnetometers are a Must-have for Deep-sea Researchers

What are the right tools for the job when searching the vast waters for shipwrecks? Magnetometers are “must-have” equipment for the serious deep-sea researcher. Magnetometers detect variations in the Earth’s magnetic field caused by iron or other magnetized material such as brick or rock. The main feature that distinguishes this from the benefits of a side-scan sonar is that a magnetometer can detect objects buried under the ground while sonar only portrays what is on the surface. JW Fishers’ [Proton 5](#) magnetometer is used across the globe to locate sunken wrecks, aircraft and vehicles and other critical objects.

A small dive club, “The Wreckless Divers”, currently uses JW Fishers’ Proton 5 magnetometer for its most important searches ([facebook.com/wrecklessdivers](https://facebook.com/wrecklessdivers)). The group consists of technical divers operating at depths of around 120 metres. Some dive on rebreathers while others rely on open circuit scuba. The team is based in Cape Town, South Africa. One area, Cape Point, divides the Atlantic and Indian oceans and is also known as the Cape of Storms. One team member states: “There are plenty of shipwrecks along our coastline and the exact locations of most are unknown.” According to one of the founders, Bruce Henderson, the group’s mission is as follows:

*There is an enormous number of shipwrecks off our coast dating from the 1700s through the early 1900s and even more recent wrecks. Many of the exact locations are unknown. We are very keen to find the more interesting of these wrecks and to dive on them to confirm the identify, location and condition. In particular, a German ‘merchant raider’ called “The Wolf” laid mines off Cape Town during World War I and sank at least four major merchant vessels. None of these wrecks have been located. We have begun a methodical search for these wrecks. To date, we have found an old fishing trawler and a whole bunch of magnetic rocky outcrops. But it’s been fun and we will persevere until we find the wrecks that we are after.*

Bruce Henderson states: “We ran into a bit of trouble with the set-up when we first received the magnetometer. My son, Josh, was quickly designated as ‘head of technical’ on our search team. We called the JW Fisher’s office and were put through to the top technical guy who was amazing. He patiently took us through the set-up procedure and we were very soon up and running. This was amazing; to be able to call on the JW Fisher’s team all the way from Africa and have them so helpfully take us through the system.”



JW Fishers' magnetometer on deck.

