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A Message From the
Wheelhouse

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News & Updates

THE LOOKOUT

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A Message From the Wheelhouse

Thanks for checking out Issue #11 of The Lookout, our annual newsletter covering wide ranging topics that are historical, technical, and relevant to our diving community in Massachusetts. This issue includes articles on our GUE Fundamentals class, and trips to Florida, Kingston, Alexandria Bay and Truk Lagoon! We revisit an oldie, but goodie with a wreck profile on the Reliance. We also share an exploration update on our project, the unidentified vessel, SAS_11.

We'd like to thank all our customers and crew for your continued support and participation aboard Gauntlet. The 2019 diving season will be an exciting one. We hope that you'll join us on our adventures whether you are looking for training or just some great wreck diving off the coast of New England!

We hope you enjoy this issue of The Lookout!

Heather and Dave

GUE Fundamentals: Never Too Late!

Training pathways for divers entering technical diving used to be straightforward. Most divers progressed through open circuit (OC) technical training beginning with advanced nitrox and decompression procedures courses, followed by trimix training through the two or three levels. With the mainstream market entry and growth of closed-circuit rebreathers (CCR), many open circuit trimix divers moved over to this technology, continuing to dive at their highest level after learning the basic foundational skills of the CCR. Today, some divers progress very quickly and with little time spent doing any appreciable open circuit diving before entering CCR diving. Some of these divers never have the opportunity to develop a core set of foundational skills as a result. Conversely, divers with many years of experience sometimes senesce, developing small, but significant bad habits or they simply become complacent. These situations beg the question, is there a place for introducing or revisiting foundational skills training among experienced divers? As technical divers and instructors we believe there is a place for periodic fundamental skills training, irrespective of whether a certification follows.



Dave in his open-circuit doubles rig. Staying proficient in open-circuit and CCR is important to us as divers and instructors.

In other professional industries, routine, periodic training is part of compliance with procedures, maintaining competency, and ensuring workplace safety. In some cases, there are formal re-qualification requirements. Usually, the greater the risk and impact of errors in a particular role or activity, the more rigorous the credential requirements. So why don't we do more of this in diving? Training is too often viewed as a sequential progression with a beginning and an end. We should instead see it as a continuous

cycle, and we should not be afraid to "go back to basics" to evaluate, refresh and improve our foundational skills. While non-technical skills training (i.e., Human Factors course work) has gained popularity in the last few years, there is still little clarity on how best to approach continuous training and maintaining proficiency with diving skills. Practicing skills is not enough. How do you know if you did it well? The worst you perform a skill is the best you might perform it under stress in an emergency. Will that be good enough?

GUE Fundamentals "is designed to cultivate the essential skills required by all sound diving practice." (GUE, 2018). While the class is a requirement to qualify divers for additional GUE training, this objective is both simple and universal in its application. Certainly, other training programs aim to do similar things at the entry level and find success, though inconsistently. Not all instructors are created equally. As such, excellent training irrespective of agency often comes down to the instructor, but this "hit or miss" approach to training simply reveals flaws in how training agencies are approaching instructor credentialing and evaluation. And that does not help the diver that does not know how to tease out this distinction when selecting an agency or instructor.

GUE is distinct in that it has a method and process, and a performance standard for both instructors and students that is unique and well above industry standards. Some are not interested in GUE training because they don't agree with the approach or they opt for shorter, less difficult paths to

reach their goals. And that is fine, clearly there are many ways to reach one's goals, and become a safe, competent diver. But for those looking to solidify foundational skills and/or improve foundational skills to the highest standards, this course has no equivalent.



Team diving involves more than just diving together. There needs to be shared understanding of equipment, procedures, and roles and responsibilities.

So, what does GUE fundamentals offer a diver? For starters, it offers the opportunity to return to the basics in a simple equipment configuration that will identify weaknesses that are foundational. For example, it is easy to say, buoyancy is challenging on a CCR. Is that because CCR is challenging in general or because a diver's foundational skills are poor and the CCR simply exacerbates that? Certainly, it can be a mixture of both, but solving the foundational issue will translate to improvement on the CCR. As such, the Fundamentals class offers those who skipped over doing a meaningful amount of open-circuit diving the opportunity to build a foundation that might be inadequate, weakened or missing.

Experienced divers that may have developed ways of compensating for weaknesses can find them and fix them. Regardless of where one begins, the result will be the same: improved foundational skills will translate to greater proficiency at the highest level of one's diving.

In thinking about what we wanted out of a GUE Fundamentals class, we wanted a critical evaluation and refresh of our foundational skills. We knew that by going through the process to prepare for and participate in the class, we would examine our most fundamental skills with the aim of improving them. We would optimize our configuration and improve our team diving skills. We would build even greater confidence in our ability to handle problems. And if desired, we would open a pathway to do additional GUE training and perhaps participate in projects. While the concepts and skills were not new to us, the GUE process and methods were different from some of the other training we've done, providing a fresh perspective. Additionally, since we are technical instructors for other agencies, we wanted to see what GUE had to offer and how we might improve as instructors and incorporate some of these methods into our overall approach to teaching.

Without giving away all the surprises, after a swim test, the GUE Fundamentals class begins with academics and a review of equipment configuration. GUE has a standard equipment configuration, most commonly known as "DIR." All this means is that the equipment configuration is holistic and focuses on simplicity: everything has a place, if you don't need it, you don't bring it. Backplates and wings are quite mainstream now, but the harness being adjusted properly to your body, with d-rings precisely in the right place, is not so commonly covered in detail in other classes. What most do not realize is how significant equipment adjustment is when determining your stability in the water. Moving things up or down a few inches can have significant impact on balance and trim. This is true of CCR or OC diving and one reason we have always required "Introduction to Technical Diving" as a pre-requisite in our technical diving classes. It is critical to spend time on equipment configuration and adjustment.

From there, the course covers the “basic five” skills that all divers should have mastery of: 1) primary regulator remove and replace, 2) regulator exchange (switch to back-up regulator and clip off primary), 3) deploy long hose, 4) mask flood and clear, and 5) mask removal and replacement. Sounds easy? Attempting to do these skills perfectly neutral and stable, without sculling, is much more difficult than it seems. Neutral buoyancy and balance (stability) are not the same thing, but they do go together. That said, this is an example of where proper equipment adjustment and configuration can make a huge difference. If you don’t know where your center of gravity is or how to find it, and then how to adjust your equipment and body position to balance it out, then you are not stable.



Celebrating a successful GUE Fundamentals class with our instructor Jon Kieren of Kieren Technical.

One performance objective of GUE Fundamentals is to achieve trim that is maximum of 20 degrees off horizontal while remaining within 3 feet of a target depth. In learning to do this, it becomes clear body position and equipment adjustment go together. Learning to hold your body in trim or shift weight is a critical, but basic and often overlooked skill. Using your arms, legs and head to shift weight and balance on your center of gravity is what allows a diver to maintain the “delta position” (zero degrees off horizontal). Thinking about CCR, which can require quite a bit of effort to balance out depending on the unit, similar concepts apply.

Once stability and the basic skills are established, the course progresses to add skills of increasing difficulty to challenge stability, buoyancy, and teamwork. If things are going well, by Day 4 you will be swimming around midwater without a mask in trim. But performing skills perfectly as an individual isn’t all there is to it, another significant portion of the class focuses on teamwork, communication and dive planning. GUE is well-known for team diving, with incredible achievements in cave and wreck diving in large part due to the team-based approaches to diving. The GUE Fundamentals class emphasizes working together as “teammates” and utilizes a pre-dive checklist that confirms everything from what equipment each diver is carrying, to equipment functionality and decompression/exposure planning. In other words, before the dive begins, all equipment has been inventoried and checked. The dive team has confirmed roles and responsibilities and that all understand the dive plan. Some skills are designed to make you dependent on your teammate to prove the point that 1) effective teams can accomplish a great deal both in executing a mission and solving problems and 2) your teammate may save your life if things go badly enough. This does not mean “self-rescue” is unimportant, rather that certain dives will have a greater margin of safety when an effective team operates together, and that is the point.

After 5 intense days, we earned a technical pass in our GUE Fundamentals class. Despite our years of experience as technical divers and instructors, we found the class to be challenging. We also learned some interesting new ways of approaching gas planning and preparation for dives. We learned how to be better teammates and instructors. The class represented an outstanding learning opportunity that was truly rewarding, and without a doubt translated into improvement of our personal diving skills. In summary, we’d highly recommend this course to any diver looking to improve skills or refresh skills. The GUE Fundamentals class is available to both recreational and technical divers.

The results will speak for themselves. It is a certification you will be proud of earning. It is never too late!

2018 Diving Highlights

The 2018 diving season has been an exciting one with many adventures all over the world. We were fortunate to do some great diving at home and away. Even when we got blown out, we went diving somewhere! Here is a brief recap of some of our adventures.

Massachusetts Bay and Stellwagen Bank National Marine Sanctuary

This summer the Gauntlet roamed far and wide across Mass Bay and Stellwagen in search of good dives, great visibility and with any luck, a whale sighting or two.

Indeed we got to see whales on one of our highlight and favorite long distance trips that we try to do once per year, the Pinthis and Paul Palmer. The Paul Palmer is in Stellwagen, north of Provincetown. Visiting both wrecks in the same day takes the Gauntlet on a >75 nm voyage from Beverly to Scituate, over to the sanctuary and then all the way back home.

While diving on the Pinthis, we encountered those highly sought after whales! While anchored up on the wreck's mooring, we got buzzed by whales literally swimming right up to the edge of the boat! While we did not get to see the whales underwater, we did get some close passes. From there, we moved over to the Paul Palmer where we were treated to great visibility and lots of marine life. The current didn't slack off for as long as we hoped, but we got good dives in with a lot of whale watching on the surface.



Whales swimming up to the Gauntlet while moored to the wreck of the Pinthis.

We did not get to visit all our favorite Stellwagen Bank wrecks this summer, but rest assured they will be on the schedule this upcoming season.

Florida

We made two trips to Florida this year—one to do GUE Fundamentals in September and another back in March to do our X-CCR cross-over class with Jon Kieren of Kieren Technical. We had been looking at a few units, including the iQsub X-CCR, and did a demo dive in November 2017. After a walk-thru of the unit and a dive, we were sold on the X-CCR. With a little planning and the right timing, we decided to make the move.

The X-CCR is a state of the art rebreather with backmount counterlungs, a high degree of modularity, and a robust, compact design. The unit has some great features, such as a CO2 sensor and options



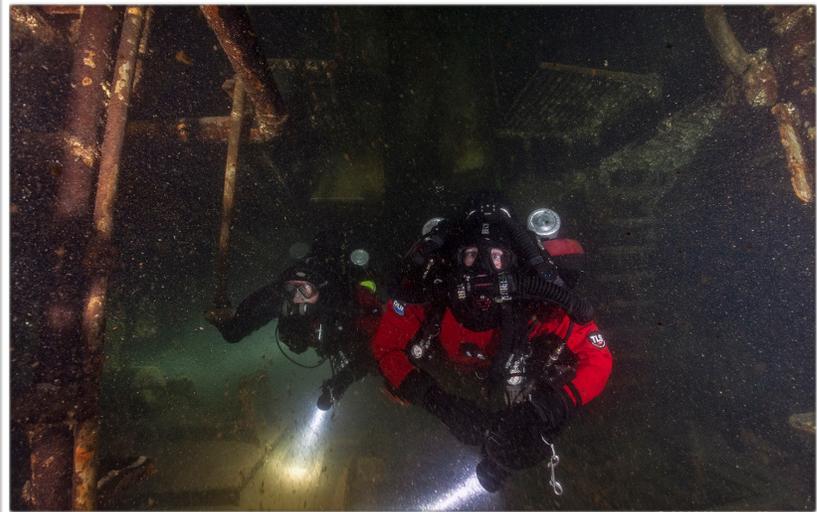
Preparing for a dive in our X-CCR cross-over class.

for secondary monitoring, utilizing the Shearwater platform. The X-CCR is rugged, high quality and comes standard with a BOV. Our units can be configured with a smaller travel canister with 5.5 lb scrubber or a full size canister with 7 lb scrubber. The entire unit in the travel canister configuration can fit in an airline approved roller board carry-on suitcase. The X-CCR achieved CE approval in December 2018 with no design changes and impressive performance data, including low WOB in all positions.

Kingston, Ontario

Over Labor Day weekend, we decided to do a get-away instead of sticking around home. Over the years, we've seen fewer and fewer divers interested in diving over the holiday weekend, and so instead of running charters, we decided to hit the road and be customers for a change. Our plan was for a fun 3-day weekend diving the wrecks of Kingston, Ontario. This area of the St. Lawrence River features some interesting well-preserved wrecks without the current that runs strong through other nearby parts of the river.

We booked our weekend with Pat's Dive Charters and crossed our fingers on the weather! Unfortunately, we did encounter extremely windy conditions, but we did get in two nice dives on a ferry called the Wolfe Islander II. The Wolfe Islander II ran for 29 years operating between Kingston, Ontario, and nearby Wolfe Island. The Wolfe Islander III replaced the ferry in 1985. The Wolfe Islander II became an artificial reef, scuttled in 70 feet of water as a dive site not far from Kingston. The placement of the wreck put its in the lee of Wolfe Island. Pat's Dive Charters is not far from the wreck, and as we learned, is one of the few charters that can reach this wreck when the wind is blowing hard. We felt fortunate for that otherwise we might not have been diving! Although the visibility was poor, we had two fun dives exploring this wreck. The engine room was pretty cool and in good visibility, this is definitely a very nice dive. We really appreciated Pat's efforts to get us out diving and would highly recommend him. We'll be back!



Inside the engine room of the Wolfe Islander II.

Truk Lagoon (Chuuk)

In November 2018, we traveled to Chuuk to dive the wrecks of Truk Lagoon. Long standing on our bucket list, we finally had the opportunity to make the trip happen aboard the live-aboard, Odyssey.

Truk Lagoon, part of the Caroline Islands in the Pacific ocean, was a military base and anchorage for Japan's "Combined Fleet" during WW2. Often compared to Pearl Harbor for its significance to the Japanese, Truk lagoon was the site of a US Navy airstrike called "Operation Hailstone," conducted over the period of February 17-18, 1944, which resulted in the loss of approximately 40 vessels with over 4500 casualties.

The Empire of Japan obtained Chuuk as a spoil of WW1. During WW2, Truk Lagoon became a major installation for the Imperial Japanese Navy (IJN), being utilized as a forward operating base in the

Pacific. However, it was not well fortified for an attack. And as the IJN continued to lose other strategic locations in the Pacific, vessels needed to be moved out to other locations, such as Palau. By the time of Operation Hailstone, many of the warships had been moved out of Truk Lagoon, but a large portion of the Combined Fleet remained. That said, had the attack been conducted sooner, the results may have been even more devastating for the IJN.



The bow gun on the San Francisco Maru, known as the "Million Dollar Wreck" due to its cargo, valued at approximately 1 million dollars in 1944.

Today, Chuuk State is part of the Federated States of Micronesia. The shipwrecks of Truk Lagoon laid dormant until 1969 when Jacques Cousteau and his team first visited, producing a

documentary in 1971. A few years later in 1973, Kimiuo Aisek, a native Chuukese, opened Blue Lagoon Dive Shop. Aisek witnessed Operation Hailstone as a 17 year old boy, and later became a champion of Truk Lagoon's history, advocating for protection and conservation of Truk's wrecks as war graves. Aisek passed away in 2001, but his legacy is alive and well at present day Blue Lagoon Dive Resort.

Over the 6 days we spent aboard the Odyssey, we visited 13 different shipwrecks in Truk Lagoon. Each wreck is fascinating and impressive. Each dive barely scratches the surface of what remains to be explored. When asked which one was our favorite, we were unable to pick one. All we could say was that we'll get back on that question as we most definitely plan to return.

Alexandria Bay, NY

With only a few weeks left in 2018, and bad weather at home preventing us from running our last charter of the season, we decided to make a quick last minute trip to Alexandria Bay to dive the schooner A.E. Vickery in the St. Lawrence River before charters wrapped up for the season.

We hadn't been up to the St. Lawrence since 2004, which is getting to be a very long time ago. We knew the diving there is great, but with other priorities focusing on diving and exploring in Mass Bay,

it simply was off our radar, so to speak. With that, a cold weekend in December near the end of their season presented a perfect opportunity to reacquaint ourselves with the area and charter operators.

We decided to check out [Blue Foot Diving](#), a charter boat operation on the US side that visits all the highlight St. Lawrence River shipwrecks. Blue Foot Diving partners with [All About Scuba 1000 Islands](#) to provide complete support with equipment, gas fills, training and charters. The weather was perfect for our trip with mild air temperatures in the mid 40s and light wind. We were happy for these conditions because the water temperature was a chilly 37F. As an added bonus, we got to use Suex XK1 scooters, which would make the current a whole lot more manageable. Plus, they are fun!



Getting ready to cruise around the wreck of the A.E. Vickery on Suex XK1 scooters. Photo courtesy of Bob Sherwood.

The A.E. Vickery was a ~136 foot long 3-masted schooner carrying 21,000 bushels of corn that sank in 1889 when she struck a shoal while entering the American Narrows. The cargo of corn was to be delivered to the Wisers Distillery in Ontario. Today the wreck sits on a sloping bottom near Rock Island Light with a minimum depth of ~60 ffw and a maximum depth of ~115 ffw. The mast sits slightly deeper off the stern in ~150 ffw. The current is very strong at this site, and about half of the wreck stretches out into the channel, so diving the wreck requires careful maneuvering to find protection from the current to avoid being blown off.

We had a great a dive and thoroughly enjoyed the dive on the Vickery and the hospitality shown to us by Blue Foot Diving and All About Scuba 1000 Islands. The visibility on the wreck was approximately 80 feet and with visibility that good, we forgot about that 37F water for a while. It was so fun taking wide passes around the wreck thanks to the outstanding visibility and a high powered scooter—definitely not something we'd dare to do swimming! As the saying goes, we will be back!

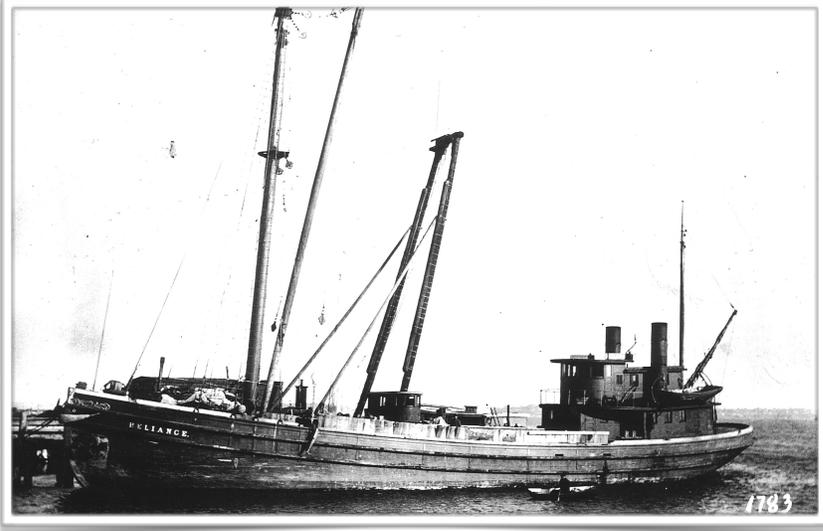
Wreck Profile: Reliance

The [Reliance](#) was a 251 gross ton wood-hulled steam lighter built in Bath, Maine in 1903. Owned by the Boston Sand and Gravel Company of Boston, MA, from 1903 to 1921 the Reliance functioned as general purpose a steam lighter. The Reliance was a small vessel at 109.8' x ~30.5' x 10.1' with a 400 HP engine, and a large mast and derrick situated forward with a pilothouse with living quarters aft. The engine was removed sometime in late 1921 and from 1922-1933 the Reliance functioned as an unrigged vessel or barge until it was scuttled on August 3, 1933.

Today, the wreck exists as a low lying structure in about 120 fsw. The stern area has partially intact portions of the hull, as well as the shaft log and rudder. The general shape of the hull is intact along the perimeter, but otherwise not much structure remains. The wreck is mostly beams and framing mixed in with coal. In the bow area, two large hawse pipes remain, and the bow is otherwise splayed

open. There is debris near the wreck out in the sand, such as tires that may have served as fenders. The anchor chain and windlass are not present and the shaft log had been plugged with wood, which is consistent with conversion to an unrigged barge and removal of the power plant. Visibility is generally average at 10-20 fsw.

Gauntlet made many trips to the Reliance in order to identify the wreck after its discovery. However, the location of the wreck in a shipping lane approach to Boston and its deteriorating state resulted in fewer visits in recent years. The Reliance is still an interesting wreck though and worthy of revisiting from time to time to see how it is changing. It is also an excellent training site with a depth of 120 fsw. Anyone interested in checking it out? Let us know!



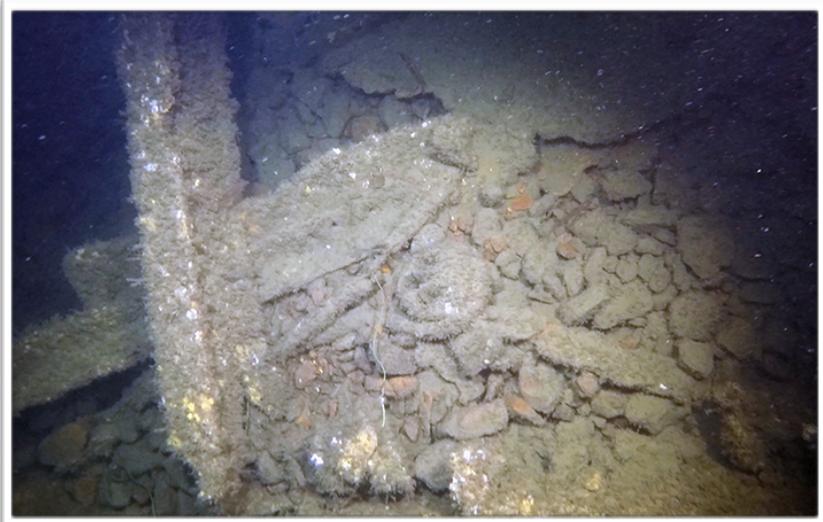
The wood steam lighter, Reliance.

SAS_11 Exploration Report

For the past 3 years we have been engaged in exploration and documentation efforts of an unidentified steamship, code named SAS_11.

Progress has been slow due to setbacks with weather impacting our planned trips, but we are extremely close to making an identification. We believe 2019 will be our year for finally solving this puzzle.

Stay tuned!



A deadeye atop a bed of coal on the SAS_11 wreck.

News and Updates

Gauntlet will be in the water this winter and in our regular winter slip. The last few years, harsh winter weather has resulted in few, if any, charters. So we're going to be determining if we offer a charter on an ad hoc basis and otherwise waiting until the March time frame before publishing a regular schedule. In the meantime, if you have any questions about the upcoming season or would like to join our email list, drop us a note.