

GUE's President Weighs In On the Equipment Policy Debate

Defining GUE's Core Values: Sidemount, Closed-Circuit Rebreathers, and DIR

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D. Rhea

Since standardization is a cornerstone of GUE practice, equipment changes require thorough examination from multiple perspectives.

THE EMERGENCE OF new organizations often manifests the following pattern: an individual is dissatisfied with a given state of affairs and imagines they can do better; sharing that person's perspective, others rally around him/her and begin to assemble a framework that will become a new organizational body. So it was with Global Underwater Explorers (GUE) during the early 1990s.

Before I founded GUE, I had been a Training Director and member of the Board of Directors of several different organizations. During my time with these groups, I had tried on a number of occasions to promote change from within. Unsuccessful, I ultimately came to the conclusion that the changes I proposed were unwelcome. Encouraged by a set of like-minded individuals, I decided to follow my own path and establish the foundation for a new vision.



Jarrold at Wakulla Springs

Naturally, there were initial disagreements. Among the early supporters, for instance, some were more invested in aquatic conservation than they were in diver training, while others were vested in changing the training ethos governing diving and had little interest in conservation. In any group sharing a set of values, discrepancies will exist in how these individuals will hierarchize their values; different people are motivated by different things and, despite their most sincere intentions, will often come to different conclusions. If managed respectfully, differences in perspective and value will only empower an organization by promoting discourse and growth. Hopefully, these differing viewpoints can be represented in open dialogue, which helps to establish a common basis from which to explore opposing views.

In 2004, DIR was becoming a hotly debated topic. In an attempt to create consensus, I put pixel to screen in 2004 and wrote an article for *Quest* called “Toward a New and Unique Future.” There, I distinguished GUE’s equipment configurations from what different communities associated with the DIR configuration. Despite being one of the primary architects of this system of diving, I did not want to become lost in a debate over minutiae distinguishing what was DIR from what was GUE. Many GUE core precepts were never considered a part of DIR, and GUE needed to independently determine standards and procedures that, while along the same line as DIR, supported the organization’s much broader vision.

It is now 2013 and we see signs of a very similar discussion, with its associated anxieties, taking shape. This new discussion orbits the use of equipment that some consider antithetical to GUE’s ethos. Paralleling the earlier debate over what was considered “DIR,” we now find ourselves trying to negotiate what is “GUE.”

From my perspective, DIR and the GUE equipment configuration that followed are tools that yield stability, efficiency, and safety within the *vast* majority of diving environments. One of the greatest strengths of the GUE configuration is standardization, because it allows disparate teams from across the world to

operate efficiently together, share equipment, and resolve problems. This benefit becomes especially noteworthy when considering GUE’s long-term mission to develop a global set of communities engaged in cooperative exploration and conservation. We will return to this idea, but it is important to understand the motivation behind GUE’s emphasis on standardization: it is the cornerstone of a decade-long vision oriented around the successful management of wide-ranging group projects.

GUE’s base equipment configuration can be compared to an extremely effective multi-tool; it is very useful in diverse

environments and yields an exponential increase in value as a result of standardization across communities. Having said that, there exist environments for which GUE’s base configuration is impracticable.

Sidemount diving and closed-circuit rebreathers (CCR) are potentially valuable tools, but across a more limited range. The relative value of these tools is contingent on the user and his or her objective. Though I must reserve the complex issue of “objectives” for a later date, for now I will say that, under certain conditions, there exist compelling reasons for using these tools, provided we understand that these applications come with inherent complications that need to be understood. For now, we will focus upon whether it is possible to incorporate these tools within the GUE community while remaining consistent with GUE’s ethos.

In making this assessment, we should first acknowledge that sidemount and CCR *can* be used in essentially any underwater environment, but being able to do something doesn’t make it optimal or even advisable. Some sidemount/CCR enthusiasts today advocate the superiority of these systems within all environments and by most users. I believe such promotion is misguided and potentially dangerous. For example, sidemount systems are beautifully adept at navigating small cave passages and very useful when simplified logistics are necessary—e.g., when it is necessary to transport heavy cylinders over demanding terrain. A recreational diver entering the water from a rocking boat in rough seas, however, will quickly come to see the weakness of a sidemount configuration for that application; furthermore, this diver gains little benefit from complicating his or her gas management by being compelled to switch between tanks. A standard equipment configuration with global application should be built around the fact that the vast majority of diving is done by recreational divers in oceans around the world. Systems that complicate open-water recreational diving should be reserved for other applications.





I. Lundgren

A strength of GUE's equipment configuration is applicability to many purposes; however, specialized tools are required for specialized tasks.

Likewise, CCR diving is a compelling tool for certain applications. The benefits associated with a radical reduction in gas consumed are indisputable. The benefit of other corollaries—e.g., warm/hydrated gas, lack of bubbles, and simplified logistics—are more complicated, however, and their appropriateness depends upon the dive and the diver. Of course, these benefits come with associated risks which are nuanced enough to warrant a dedicated article on the subject, though we can say that recreational open-water divers have little real *need* for significantly more gas volume; most reach decompression or thermal limits before the gas limitations presented by conventional Scuba.

Despite being less than ideal as standardized configurations for use in the collective efforts of a global community, it is indisputable that sidemount and CCR are matchless tools for particular applications. But this recognition does not address the question of whether they are appropriate for GUE, nor whether their use violates core GUE principles. Given GUE's history as a community of explorers developing tools (such as standard configurations and diver training) to realize their goals, it makes little sense to forgo a careful evaluation of all relevant tools that may help to realize these objectives. For example, exploration in a small cave will undoubtedly require a sidemount configuration. The idea that GUE divers should reject this tool on principle is antithetical to the foundational principles of an organization whose origins were grounded in exploration. Integrating this tool across a global network is complicated, however, so it is vital that we explore its implications for GUE communities.

From the perspective of minimalism—a central tenet in the evolution of the GUE configuration—we can see why a GUE equipment configuration might be at odds with certain tools, such as sidemount or CCR. Minimalism mandates the avoidance of extraneous equipment, taking only what is needed for a given dive. But there is some question as to what is really *needed* on any given dive. Are rebreathers *needed* for moderately deep dives, given that GUE divers have decades of very aggressive deep diving experience on open-circuit? Yet today, many GUE divers use rebreathers for this application. Are heated vests for comfort, safety bottles for extra gas supply, and food and drink for additional support underwater *needed*? We take cameras, strobes, video lights, and a range of tools which are sometimes useful but often not really necessary. Rather than what is *needed*, perhaps better selection criteria include whether a given configuration or piece of equipment is *useful* for a dive and whether it is incommensurate with other elements of the GUE configuration. In other words, do these tools interfere with the safe conduct of dives by well-trained, capable divers who are utilizing standardized equipment configurations and are supported by teams of like-minded divers?

Developing the details of GUE's standard configuration has been an organic process, assembled over the years and adjusted carefully to support our global objectives. Today, it may be necessary to make changes to this configuration, but if so, any modification must be done carefully, as changes can undermine standardization, a critical element in the success of this configuration and its widespread appeal. To justify undertaking such a risk, it must be

apparent that any adopted change will yield significant benefits, such as those enjoyed by embracing the RB80 rebreather, as with the move to HID and now toward LED, and as was the case with new-style DPVs. Any change should also strive to minimize, as much as possible, any asymmetry between the old and the new configurations. We evolve our standards begrudgingly and only when useful to our long-term global objectives.

I can appreciate the apprehensions on both sides of this issue. There is dissatisfaction both from people who want GUE to move quickly and from those who prefer we not move at all. But moving too quickly likely devalues the substantial asset of twenty years of community development, while complicating the efficiency and safety of many thousands of GUE-trained divers. Meanwhile, an unwillingness to evolve restricts the organization to a set of practices that limits its exploration options and fails to account for evolving technology, circumstances, or environments.

When technical diving was relatively new, there were ample opportunities to explore new environments with conventional, open-circuit Scuba equipment. The number of large caves to explore in Florida, Mexico, and around the world warranted only the sporadic use of a sidemount configuration within GUE. Likewise, low helium prices, a capable team, and well-established infrastructure minimized the value of exceptional gas conservation, such as that provided by CCR. Therefore, the apparent increase in complexity did not seem justified, especially when considering the immature state of the CCR industry during the mid and late 1990s. That is not to say these systems were not interesting, or that GUE ignored their presence. It is only to say that the usefulness did not appear compelling enough to commit the resources needed for a thorough, broad-based evaluation.

In recent years, however, the value in embracing new tools has become more apparent—greater need for gas conservation seems inescapable while a great deal of cave exploration in remote locations renders backmount diving a liability. These developments have led GUE to commit resources to assess the practicability of adopting new tools. Maintaining a long-term view of GUE's global aspirations and its commitment to safety requires that new styles of diving undergo responsible and careful consideration. For example, GUE principals are actively evaluating the possible incorporation of the sidemount configuration within GUE cave diver training and how to make it compatible with its standard configuration. In many ways, sidemount diving is not overly complicated; what is challenging is how to best incorporate it (if at all) into GUE training and communities. With respect to CCR, the additional complexity requires more careful evaluation. GUE has remained current over the years by tracking the progress of CCR developments, studying relevant advances, and experimenting with different systems. In 2005, GUE began encouraging broader community exposure via active CCR divers, including invitations to the annual GUE conference. The value of research and associated exposure, however, is limited when compared to comprehensive personal evaluation. Early in 2007, I authorized greater public transparency and asked senior GUE Instructor Evaluators to explore different rebreathers as a means to expand the GUE CCR user base. A similar protocol was enacted with respect to sidemount systems.

To date, GUE has evaluated all major rebreathers on the market, which has included visits to different manufacturers and careful reviews of the many potential issues relevant to CCR diving. Most CCR accidents appear entirely preventable, leading us to ask whether GUE could have a positive effect on this community in the same way we became a voice for responsible open-circuit diving. After several years of CCR experience within the highest ranks of the organization, we have elected to expand our experience, creating a beta GUE program and testing CCR usefulness with GUE instructors and experienced GUE Tech 2 divers.

By selecting the most experienced GUE tech divers for this “trial,” we are seeking to reduce preventable risk to personal safety while using skilled GUE teams to help evaluate problems which could arise should we consider further integration of CCR diving into the GUE community. This expanded base of GUE tech divers is necessary in order to properly evaluate the pros and cons of everyday use, including technical challenges, team complications, and community integration issues. To this end, we have completed three beta CCR classes in which we are testing a GUE approach to CCR diving.

As part of our effort to minimize possible conflicts with GUE's standard configuration, GUE beta programs are being conducted using one configuration and one style of rebreather. Given GUE's emphasis on a unified team, it is difficult to justify the use of different CCR rebreathers within the organization. However, we are far from settled on any specific unit, so interested parties should not take our experiments as an endorsement of any given unit. To date, there are problems with all available options (general availability, CE status, scrubber size, build quality, counterlung options, etc.). For those who assume our experiments confirm the eventual development of a CCR program, I should be clear in saying that we remain generally uncertain about the future of CCR in GUE, and particularly unclear about any specific rebreather unit. This uncertainty is worth emphasizing because moving too quickly could cost GUE divers money in training, especially with a purchased unit which could easily become unsanctioned in the future.

I appreciate that people deliberate and reach conclusions differently. To some, this approach might seem overly cautious; others likely imagine it wholly undesirable. In both cases, I find that people are generally impatient, preferring quick answers and fast actions. Careful and deliberate evaluation is necessary, however, given GUE's commitment to safety and long-term community building. I will provide a more detailed review of the specific factors under consideration as well as details regarding GUE's evolving effort to evaluate a standardized approach to CCR diving within a GUE community. Regardless of your opinion on this topic, I hope you appreciate a few of the moving pieces associated with these deliberations and will voice your thoughts on GUE's online forums. I am a firm believer that the careful consideration of divergent views is the best way to develop and refine complex topics within an organization.

