

SCUBA

D I V I N G

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ISLANDS
that
TIME
FORGOT

CARRIACOU » ELEUTHERA » GUANAJA » LITTLE CORN

PUERTO RICO » ST. EUSTATIUS

P 44



LIGHT AS AIR

ScubaLab tested 12 travel, jacket, back-inflation and women's BCs

BY ROGER ROY AND ROBBY MYERS PHOTOGRAPHY BY JON WHITTLE



**SCUBALAB
TESTERS
CHOICE**
2019



ROGER ROY has been a diver for more than 35 years and ScubaLab director since 2013. He first learned to dive while working as a firefighter, training to join the department's search-and-rescue team.

SCUBAPRO

SEAHAWK 2

MSRP \$679; \$805 (with Air2) CONTACT scubapro.com

There's more to this makeover of the Seahawk than some of the travelers here — including a pair of roomy zippered cargo pockets, eight stainless D-rings, and generous padding. It folds as small as most, and is only a pound or so over the average. But the real payoff comes when you get it in the water, where it doesn't feel like it's giving up anything in amenities or performance to accommodate the demands of travel. It took top score for comfort and one of the highest scores for stability, with test divers repeatedly using the words "comfortable" and "stable." With more than 50 pounds of lift and integrated weights that hold 24 pounds (in size large), as well as trim pockets, it can handle anything from tropical diving to drysuit duty. With the highest total score in its category, and chosen among the favorites of most test divers, the Seahawk 2 is our Testers Choice for travel BCs.

COMFORT AND FIT

POOR EXCELLENT

ATTITUDE AND STABILITY

POOR EXCELLENT

HEAD-TO-HEAD TESTING

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HOW WE TEST

ERGO TEST

Testing was conducted at Blue Grotto Dive Resort in Williston, Florida, by divers equipped with slates and waterproof test sheets. Divers recorded their observations and assigned scores from 5 (excellent) to 1 (poor) in each of the following categories:

SETUP Ease and security of tank and hose attachments

LOADING WEIGHTS Ease of loading and security of integrated-weight system

COMFORT Overall comfort, in and out of the water

ADJUSTABILITY Ease and range of adjustment

ATTITUDE AND STABILITY In swim and vertical

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[head-up and head-down] positions; overall control of attitude and trim

STREAMLINING

Clean hydrodynamic profile at depth

STOWAGE

Usefulness and accessibility of pockets, D-rings, loops, etc.

VALVE OPERATION

Ability to control when inflating/deflating by power inflator and manually; ergonomics of the controls

ASCENT CONTROL

Ability to maintain desired ascent rate and attitude

SURFACE FLOATING POSITION

Comfort and stability while inflated at the surface

DITCHING WEIGHT SYSTEM

Ability to drop weights quickly; security from accidental ditching

OBJECTIVE TEST

We conducted three tests in fresh water to measure criteria important for performance and safety.

FLOW RATE

We tested the ability of each BC's exhaust system to prevent uncontrolled

**H2ODYSSEY****BC3 FLITEPAC**

MSRP \$560 CONTACT h2odysey.com

Weighing just 5½ pounds, the Flitepac has a soft, well-padded back plate that still allows the BC to fold up very compactly. Though available in only a single size, the Flitepac still fit all of our test divers, who gave it good marks overall for comfort and adjustability. But its range of adjustment (the waist covers 22 to 42 inches) often left webbing dangling after cinching up — “a lot of extra strap here,” as one test diver noted. The weight pockets hold a combined 25 pounds and load easily from the top, ditching instantly with a yank of the large (some divers thought overly so) web loops. But smaller divers in particular found the pockets sitting on their hips and quite forward, which gave the BC a pronounced face-down floating position. There's no right-shoulder exhaust, but the inflator has a pull-dump that helped the Flitepac earn a very good score for ascent control, and divers also rated it very good for maintaining a streamlined profile.

**HOLLIS****L.T.S.**

MSRP \$449.95 CONTACT hollis.com

The initials stand for “Light Travel System,” and indeed we measured the L.T.S. at just over 6 pounds in medium (one of four sizes available), which was a bit surprising since it has full double tank bands, a very rugged bladder cover and a smattering of stainless-steel D-rings. A harness with a two-position sternum strap and relatively thick padding helped earn the L.T.S. a good score for comfort (though it adds some unwanted inherent buoyancy). But where this BC excelled was its rock-solid stability underwater — no other travel BC scored higher for attitude control and stability. “Stable even in somersault and barrel roll,” one diver commented. “Effortless attitude control,” noted another. Capacity for the integrated weight pockets is listed at 5 pounds each, but we found that even with a couple pounds more, they were still easy to load (through zip-pers at the top) and ditch (with a pinch of the buckles and a pull on the Velcro tabs).





IST SPORTS

J-1900 DELTA

MSRP \$500 CONTACT istdivingsystem.com

Although marketed for general use, the light weight and soft back plate of the J-1900 made it a natural fit among our travelers. Available in a single size, it fit most test divers but had lots of stray strap dangling on all but the largest divers (though you can easily trim the unfinished waist belt to fit). The weight pockets mounted prominently on the waist belt were one of the things liked both the most and the least. With internal weight pockets, they load super easy from the top, secure well with snap-and-Velcro fasteners, and dump without hassle. But they also tended to slide around on the belt and kept some divers from achieving the trim they wanted. Divers also wished for a pull-dump on the inflator (the only exhaust is at lower right). While the shifting weight pockets hurt its score for comfort, the harness otherwise got praise from divers, who liked its highly adjustable fit, including the simple but effective sliding sternum strap.

COMFORT AND FIT

POOR EXCELLENT

ATTITUDE AND STABILITY

POOR EXCELLENT



MARES

MAGELLAN

MSRP \$399 CONTACT mares.com

If the name didn't alert you to this BC's globe-trotting focus, the stripped-down design would. The lightest BC here, its harness has some of the thinnest, narrowest straps we've seen. But while the harness is sparse, there's just enough of it in exactly the right places, and that landed the Magellan among top scores for comfort and stability. The sharply curved shoulder straps keep everything in place without restricting movement, and the padding — in the soft back plate and waistband, and where the shoulder straps cross the collarbones — is positioned just where needed. The integrated weights load and ditch easily (though small-handed divers found the big release buckles a bit of a reach). For stowage it was rated just average because D-rings are few and the drop-down zippered cargo pocket is tricky to reach under the weight pocket. Chosen among the favorites of multiple testers, the easiest packer and well below the average price here, the Magellan is our Best Buy.

COMFORT AND FIT

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ATTITUDE AND STABILITY

POOR EXCELLENT

ascent in the event of a stuck power inflator. At 10 feet, while loaded with 20 percent of the manufacturer's claimed buoyant lift, each BC was held upright while the power inflator and upper exhaust were activated for 20 seconds. Industry standards require that a BC has not become positively buoyant at the conclusion.

BUOYANT LIFT

Each BC (in size medium unless otherwise noted) was fully inflated with the power inflator while mounted upright to a neutrally buoyant bucket. The bucket was then progressively weighted until the BC would not support another pound without sinking.

INHERENT BUOYANCY

To determine how a BC's built-in buoyancy would affect weighting requirements, each BC (in size medium unless otherwise noted) was submerged, with care taken to remove all air from air cell, pockets, padding, etc. Weights were then added in half-pound increments until the BC would support no further weight without sinking.





ASK ROGER

Q: One size fits who?

A: Though it's too early to call it a trend, we did note that nearly half the lightweight travel BCs in this year's test are available in a single size designed to fit all, or at least most. Given the size range of our test divers, we were a bit surprised that they were all able to use the one-sizers, thanks to relatively spare harnesses and straps with long ranges of adjustment. But if this is a trend, maybe we'll see some clever ways to corral the long strap ends left over after smaller divers cinch things up.



SEAC MODULAR

MSRP \$459 CONTACT seacsub.com

As the name suggests, the Modular can be configured with an assortment of accessories, including integrated and trim weight pockets, cargo pockets and even an aluminum back plate. The standard back plate has a U-shaped steel brace that slides out in seconds, allowing the BC to fold for travel. A one-size-fits-most design with relatively hassle-free adjusters, the Modular fit all our test divers, who rated it good for comfort, setup and adjustability. We tested it with Seac's Q&S integrated weights that test divers lauded on previous models we've tested, and weren't surprised it took top scores for easy loading and ditching. The techy doughnut bladder is streamlined and slippery in the water, but it was also the target of a common complaint: The lack of an inflator pull-dump or right-shoulder exhaust made it a bit more work dumping air than usual for a rec BC. Versatile and capable, the Modular was chosen as a favorite of multiple test divers.

COMFORT AND FIT

POOR

EXCELLENT

ATTITUDE AND STABILITY

POOR

EXCELLENT



XS SCUBA COMPANION

MSRP \$360 CONTACT xsscuba.com

The Velcro-only fastener on the Companion's waistband gives the harness a wide range of adjustment, as well as surprising comfort, thanks largely to the velvety back pad and collar. "Perfect BC for skinny dipping," quipped one test diver. Indeed, the uber-minimal harness makes the Companion feel like you're not wearing much of anything, and that helped it take the top score for a streamlined profile. But there's also not much in the way of attachment points, with just a pair of D-rings and some knife-sheath grommets on the waist band. The soft back plate, with a pair of 2-inch tank bands, proved stable as well as comfortable, and folds up easily. The integrated weight pockets hold 5 pounds each and ditch with a yank of the Velcro fastener, but loading is more of a chore — especially if you're wearing the BC — because the pockets load from the bottom and are a snug fit. But for warmer water where your wetsuit is thin or optional, the Companion is a willing traveler.

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POOR

EXCELLENT

ATTITUDE AND STABILITY

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EXCELLENT



**SCUBALAB
TESTERS
CHOICE**
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TUSA BC0403B TINA

MSRP \$499 CONTACT tusa.com

The Tina earned excellent and very good scores in every category; female test divers specifically praised the stability and comfort of the BC's wraparound fit. They also liked the plushy back pad that provides support along the lower back and disperses weight around the hips. The result is "super comfy," as one diver put it. Streamlined and rock-solid, the BC was rated highly for attitude and stability underwater. "Just what a BC should be," one tester commented. Buoyancy and ascent control were easy to manage with multiple exhaust options and a responsive inflator with ergonomic controls. Testers also liked the tank cam buckle, which has a half-stop between open and closed that stays in place during setup. The Tina offers two large, accessible zippered pockets, movable D-rings, octo pockets and a zippered pocket on the cummerbund. With solid all-around performance and a supportive female-friendly fit, the Tusa Tina is our Testers Choice for women's BCs.

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ATTITUDE AND STABILITY

POOR EXCELLENT



ZEAGLE ZENA

MSRP \$588.85 CONTACT zeagle.com

The Zena uses elastic panels and a front-zip entry instead of a traditional waist and sternum strap, with each panel having twin side straps to fine-tune the waist and hips independently. While it looks a bit corsetlike and can leave some straps dangling, the result is a near tailor-made fit. "Uber-comfortable once it's adjusted," one test diver noted. "The zip-up and side adjustments felt snug and secure," another female tester commented. Women divers rated it excellent for comfort and very good for attitude and stability. Divers also liked the high-capacity integrated weight pockets, which were easy to load from the top and even easier to ditch thanks to the Ripcord weight release. Divers also liked the placement of the weight pockets well back on the harness, which made for precise trim control and a comfortable head-up floating position. One of the few gripes testers had was the lack of stowage, with minimal D-rings and a pocket that's large but tough to access.

COMFORT AND FIT

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PULLING STRINGS

If you want to start a debate among divers, question how many dump valves a BC should have, and where they should be. The inflator hose pull-dump, in particular, seems to trigger a vigorous



discussion; we know divers who view it as a must-have convenience and even safety feature, and others who consider it an unnecessary potential failure point. Not surprisingly, the pull lovers tend to be more on the rec side, and the pull haters more the



tec types. In any case, the lack of pull-dumps on a couple of BCs in this year's travel category prompted gripes from our test divers, who made clear their preference for the feature on rec-oriented BCs.



FRONT-RUNNER

Swapping tanks on a pitching dive boat is enough of a pain that we expect to see more ideas along the lines of Aqua Lung's clever new front-latching F.A.S.T. Lock System that lets you snug down the BC without lifting the tank from the bench.



AQUA LUNG

AXIOM i3 W/F.A.S.T. LOCK SYSTEM

MSRP \$799 CONTACT aqualung.com

Not content to be just a capable, comfortable jacket, the Axiom boasts not one but two innovations. The first is the F.A.S.T. Lock System, which places the tank buckle on the front of the BC with a ratcheting lock, making it possible to switch tanks without lifting them off the dive bench. We love the idea of the FLS, but using it took some practice because it requires making sure the tank band is perfectly horizontal while pushing the end of the band toward the diver, which was difficult to do during our shore-based dives without a proper bench. The teeny plastic push tab and permanently attached trim pockets didn't help. The i3 inflator, which uses an intuitive lever system mounted by the left weight pocket (up for up, down for down) to inflate and deflate the air cell, couldn't be easier to use; it's a little like going from a manual to an automatic transmission. Testers loved the convenience and functionality, though some had qualms about giving up control.

COMFORT AND FIT

POOR 100%

EXCELLENT

ATTITUDE AND STABILITY

POOR 100%

EXCELLENT



SCUBAPRO

HYDROS PRO

MSRP \$916; \$1,049 (with Air2) CONTACT scubapro.com

The Hydros Pro's rubbery monoprene construction is super durable, quick-drying and surprisingly comfortable. It also "creaks like a screen door," as one diver put it (though only out of the water), and is negatively buoyant and noticeably heavier than any BC in the test. Divers rated it very good for fit and comfort (helped by the availability of gender-specific sizes that feature curved shoulder straps, a shorter inflator hose and smaller air cell for women). "Gives a nice secure fit in all attitudes," one diver noted about the supple, grippy harness. Some divers reported a little air shift from side to side, but otherwise rated the back-inflate very good for attitude and stability. "Can float any way I like," one tester commented. Divers also liked the ergonomic carry handle, buckle-integrated attachment points and interchangeable color inserts. The only place the BC struggled was in stowage — it comes with only a handful of D-rings out of the box, but the modular design can be upgraded.

COMFORT AND FIT

POOR 100%

EXCELLENT

ATTITUDE AND STABILITY

POOR 100%

EXCELLENT



SCUBAPRO

GLIDE

MSRP \$679; \$795 (with Air2) CONTACT scubapro.com

Available at test time only in size large, the Glide fit a limited number of our test divers. But those who could try it found a lot to like about this full-featured jacket. The integrated weights load easily, snug down with a pull of the adjustment strap, and ditch with a pinch of the buckles. Six metal D-rings, a pair of zippered cargo pockets, and an octo pocket keep things tidy and secure. But more than anything, what divers liked about the Glide was its wrap-around stability and comfort, aided by the cradlelike shape of the air cell and the rotating shoulder strap buckle that work together to create a body-hugging fit without constriction. Divers scored it very good for ascent control, and praised the easy-to-access dump controls and smooth, predictable operation of the inflator (our sample was equipped with Scubapro's Air2 inflator/octo). "Really nice trim and attitude control," one diver commented. "I feel perfectly at home in this BC," another tester commented.

COMFORT AND FIT

POOR

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POOR

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BALANCING ACT

Gear design is all about give and take. You want comfy padding on that harness? Here's some extra inherent buoyancy to go with it. The fancy carbon fiber that lightens your second stage tends to lighten your wallet too.

That balancing act is especially apparent when it comes to light-weight travel BCs because designing a BC like the Mares Magellan, which rolls up to pack handily in a suitcase, means giving up something. The trick is making all those trade-offs worth it.

Something all the BCs in the category did without was a hard back plate. They used a variety of methods to stiffen themselves up — some had dual tank bands, others a single band with a tank valve strap, while Seac's Modular uses a removable metal brace. All of the designs worked well enough that it wasn't apparent



while diving that they had no real back plate.

One way the Magellan shaves off weight and size is by using exceptionally **thin shoulder straps** with almost no padding. But the straps' unique, form-fitting shape made the BC surprisingly comfortable and stable.

One thing XS Scuba's Companion gives up is the traditional buckle on the waist strap,

instead opting for a **Velcro closure on a padded strap** more like a cummerbund than the usual waist belt. Testers didn't miss the buckle, giving the Companion one of the top scores for comfort in its category.

Interestingly, all of the BCs in the category have integrated weight pockets as a standard or optional feature, even though it means a bit of unavoidable bulk.

D-rings and cargo pockets were common features to cut, and on some BCs, it wasn't easy to find a spot for accessories. We've tested some full-featured BCs that had as many D-rings as four travel BCs combined.

The only BC that had a **pair of cargo pockets** and a relatively full retinue of D-rings was the Testers Choice Scubapro Seahawk.

It seems that for travel BCs, less is more — until there's too little of it.



The Test Team From left: Roger Roy, Becca Hurley, Eric Michael, Robby Myers, Mary Frances Emmons, Andy Zunz and Tom Wuest; not pictured: Dave Carriere.