

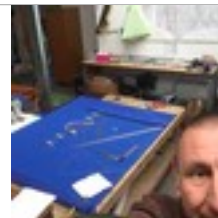
The D4 Portaledge by BigWallGear.com



The World's lightest portaledge is back. And better. The D4 Portaledge is stronger, lighter and ready for your next big wall adventure!

[Find out more!](#)

Created by
John Deucey Middendorf



60 backers pledged \$41,059 to help bring this project to life.

Last updated April 11, 2018

Campaign FAQ ¹ Updates ¹⁶ Comments ³

About



The D4 Portaledge

Yosemite Village, CA
Product Design





The Portaledge. Re-invented.

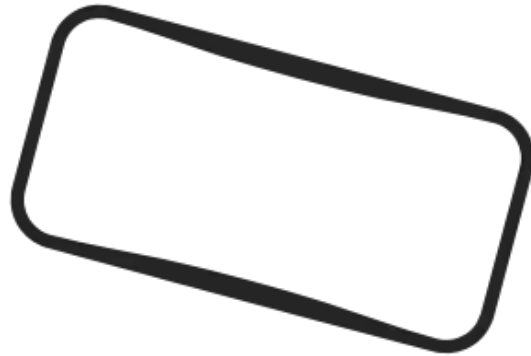
We have been hard at work creating the new paradigm in big wall portaledges. You can currently pre-order your D4 Portaledge for a 10% discount! Note that though we have conservatively estimated an April, 2018 delivery for the 10% off orders, all is going extremely well with the development and prototype process (see the Updates!), and we currently expect all Kickstarter orders to be shipped this year. We have also offered early Kickstarter supporters a significant discounted price on the first batch of 28 ledges (sold out).

If you don't need a portaledge (though just like Sneeds, everyone needs one!), please consider one of the other rewards--all proceeds will be used to outfit some of the best big wall climbers with early prototypes for their cutting edge adventures. All D4 Portaledges come complete with ledge, rainfly, and haulsack.

The D4 Story

John Middendorf created the first truly stormproof Portaledge in the 1980's and 1990's, testing each iteration on the world's toughest big walls. By sharing the technology through his

Hybrid-diameter Tubing



The frame has been redesigned using FEA computer tools, and uses multiple diameters of tubing to make for a stronger, lighter, and more rigid ledge. Full Size (80" x 46.5") yet no spreader bar needed! These ledges are so strong, there is literally no flex even when set up in a tree with only one point of contact. For more details on the structural innovations, please see [SuperTopo Design Discussion](#).

Curved Corners

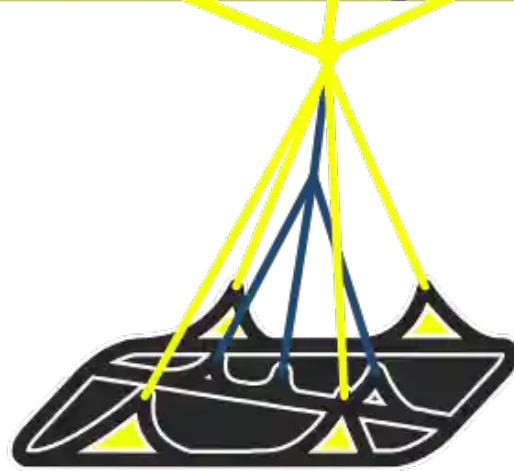


goodbye block corners!

John Middendorf, the inventor of the D4 portaledge, pioneered the world's first Stormproof portaledges back in the 80's and 90's with his A5 Adventures company. One of the solutions he came up with to make a rigid ledge back then was the "Block Corner" design, which is seen on virtually every portaledge manufactured

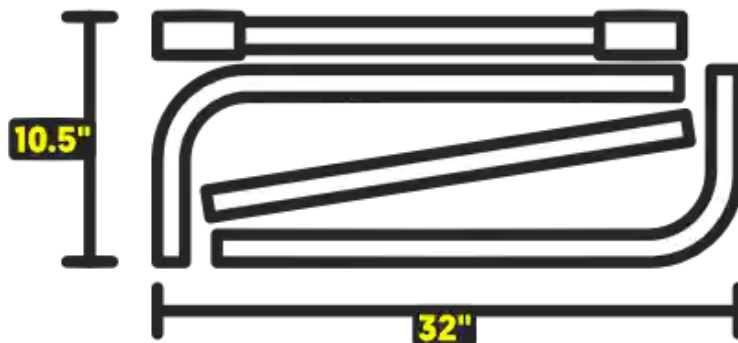
by other companies today. The new curved corners is a superior solution, offering more strength, lighter weight, and most importantly, increased rigidity of the overall frame.

Four-Point Suspension



The four-point suspension allows for easier adjustment and a more stable platform--the new D4 system is a 4/8-point equalising suspension with each of the four fins distributing the load to eight attachment points, creating more stability in typical off-center big wall loading situations. Weight is saved, fewer straps to tangle during set-up, and adjustments are easy for every big wall and tree bivy situation.

Packed Foldability



The D4 portaledge is the most compact folding ledge design, and even the haul sack has been re-invented to make packing up, and most importantly, deploying the portaledge tons easier, even in high wind situations. The zippered haulsack enables packing up to be simple and easy, while also ensuring an organised deployment. This unique design also allows for the portaledge to be optionally integrated with the fly (which fits in a separate pocket) as the system is packed up, for full stormproof deployments in minutes. Poised in readiness!



The new D4 Deploy system allows organised packing and unpacking. No more jumble of tubes and fabric coming out of a sack!

The D4 Design

Stronger, Lighter: With these four innovations, the D4 ledge is the strongest, lightest, most rigid full-size ledge available today. The size is 46.5" x 80", and current prototypes weigh in at 10.5 pounds. Complete with fly, haul sack and tent pole, the system weighs 14 pounds, making it the lightest full-size portaledge system ever created. There are a number of other progressive innovations as well, such as the top-vent, a novel fly tensioning system, and integrated fly-tentpole pocket. Every aspect of the D4 Portaledge has been redesigned and enhanced from the ground up!



D4 Prototype #1
(now in Baffin Island)



D4 Prototype #2 (John Middendorf will be climbing a big wall in mainland Australia with this one in March)



Proto #3--new fly material (vent not yet installed)

The D4 Design Process

This is as authentic as it gets. We don't sell a product right after the initial design, and hope it works. We are continually refining and improving our design, and personally testing each iteration.

Currently we are building a series of prototypes that are going out with some of the world's best climbers, including Marek Reganowicz (who has the D4 Prototype on an extreme wall in the Canadian Arctic right now), Mike Libeck (for a Greenland trip), Twid Turner (for an Alaskan wall), and even the El Cap master, PPTP, who is known for his abuse of ledges (he hauls them fully assembled up the walls).

We are also supplying [TheTreeProjects](#) with the D4 Portaledge for their tree camping adventures, so will be covering the whole range of vertical camping experiences in our development and product testing.

D4 design isn't about just how the trim will look or colour combinations, it is about creating the strongest, lightest, easiest-to-use, most functional and safest product possible. It begins and ends with engineering, and in between is the creative process of exploring a variety of ideas and materials to ensure the most rapid and efficient innovation possible.

We won't compromise--you can be assured that when we begin building the official Kickstarter batch in May, they will have the latest design refinements, features, and best materials possible for the world's finest portaledge.

UPDATES: Stay tuned for [updates](#)--this is where you will see the design process unfold. During the next few months, we will be building a series of prototypes and sending them out to the field, examining the ledges after use, and with the feedback received, will be continually improving the design. As we get new data and information from our field testers (including John Middendorf), we will post updates with the information and explain exactly how we are improving the product for our Kickstarter production.

By the way, we know that other companies will copy our lead, and future portaledges will all incorporate D4 original innovations--that's par for the course as explained in [this radio interview](#). As also explained in the [Business Insider article](#), we will simply continue to "out-innovate" the rest, as many of the best climbers are already on board with the D4, and their feedback and expertise will drive future innovation. Just as the A5 design was the best in the 1990's, the D4 is the best portaledge ever to hit the big walls of the world. Accept no substitutes!

Another great thing about this project is that we are "getting the band back together". The A5 era of the 80's and 90's was a highly collaborative time with many climbers pushing their own limits in both climbing and craftsmanship, bringing great ideas and product-feedback to the table for new climbing gear. Barry Ward was one of the original craftsmen and fellow innovator at A5, and will be making the sewn parts of the new ledge in his Durango Sewing Solutions shop. All Kickstarter orders will be shipped from Durango, Colorado, USA (note, it is likely we will be able to ship batches of the 2017 Kickstarter D4 Portaledges earlier than September--if so, they will be shipped on a first ordered, first shipped basis--so order sooner than later!)



Barry Ward, one of the original A5 craftsmen.

Kickstarter Video: <https://youtu.be/4rfnnX8hK6g>

Backer Rewards

Support this project and help raise the bar in climbing technology once again to expand the boundaries for climbers around the world. The D4 Portaledge is a new dawn for portaledge design!



>\$10
D4 Logo Decal



>\$25
D4 Patch



>\$75
Big wall BuddyBag

Press for D4

- Business Insider: [The secret to conquering the toughest climb in the Himalayas may lie in a shed in Tasmania](#)
 - ABC News: [Big wall climbing being reinvented in John Middendorf's Tasmanian shed](#)
 - [The Tree Project interview](#)
 - [Bob Brown Foundation](#)
 - [ABC Radio Interview \(w/ pics\)](#)
 - [Gripped Magazine](#)
 - [Emerging Gear--Gear Junkie](#)
 - [Vertical Life](#)
 - [Big Wall Gear Facebook Page](#)
 - [D4 Fans Mailing List.](#)
-



BUSINESS INSIDER
AUSTRALIA

Radio

SUPERTOPOTM

Climbing



Gripped



GEARJUNKIE



Vertical Life

Additional Credits:

- Graphic design by Hudson Paine
- Logo design by Tyler Miller

Risks and challenges

We are fully committed and able to produce the 28 portaledges by the September delivery date. We will also be taking orders for portaledges to be completed in 2018.

Prototype Gallery

These photos and videos provide a detailed look at this project's development.

Proof of Concept • added on February 9, 2017

Any explorations that test ideas and functionality.

1 of 26



Marek Raganowicz amazed at how rigid the new frame design can be in Yosemite after his historic solo ascent of El Cap.

Functional Prototype • added on February 26, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.

2 of 26



Prototype #1, in Baffin Island with Marek Reganowicz, big wall soloist.

Functional Prototype • added on February 9, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.



This Yosemite first pre-prototype using the new FEA designed frame built by John Middendorf. With the help of Werner Braun, John patched the first ledge as a frame test.

3 of 26

Support

Pledge \$10 or more

Be part of the

For \$10, you can get an awesome project and you a D4 sticker appreciation.

ESTIMATED DELIVERY Sep 2017

Functional Prototype • added on February 9, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.



4 of 26

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For \$10, you can get an awesome project and you a D4 sticker appreciation.

ESTIMATED DELIVERY

Prototypes being built now...

7 of 98

Functional Prototype • added on February 28, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.



Proto #2 testing on a slabby wall--perfect!

Prototype, Design Prototype, Production Prototype

Functional Prototype • added on February 28, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.



Fly material for Proto #3--getting tested and compared on a big wall in real-world conditions soon!

Prototype, Design Prototype, Production Prototype

5 of 26

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For \$10, you get an awesome piece of gear and you a D4 sticker appreciation

ESTIMATED DELIVERY Sep 2017

6 of 26

Support

Pledge \$

Be part of

For \$10, you get an awesome piece of gear and you a D4 sticker appreciation

ESTIMATED DELIVERY Sep 2017

Proof of Concept • added on February 23, 2017

7 of 26

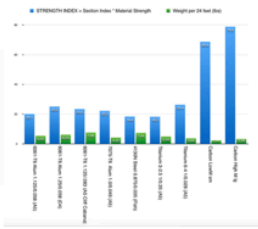
Any explorations that test ideas and functionality.

Design Details--Portaledge Strength Index

$$StrengthIndex = \left(\frac{OD^4 - ID^4}{OD} \right) \sigma$$

Strength Index Chart for Typical Portaledge Frame Materials

Material	OD	Wall	ID	Length	L/I	Material E	Flex Index
AS Alpin Double	1.125	0.039	1.059	75	27.3	10000	9.3
ASRD CHF Cube	1.125	0.039	1.059	84	42	10000	9.9
AS Great Tower (T)	1.125	0.039	1.059	75	27.3	10000	12.5
Flash	0.875	0.035	0.805	75	28	29700	11.1
Metolux	1.125	0.039	1.059	84	42	10000	13.1
D4 (hybrid aluminium)	1.25	0.039	1.154	80	42	10000	8.1
D4 Carbon (TSA)	1.1	0.036	0.97	80	42	10000	7.3



D4 frames are engineered. The strength index compares the new frame materials with existing portaledges.

Proof of Concept • added on February 23, 2017

8 of 26

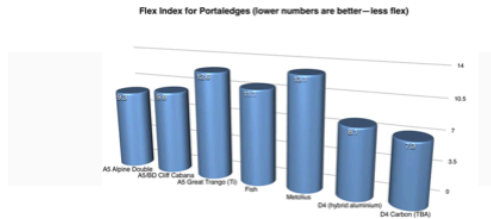
Any explorations that test ideas and functionality.

Design Details--Portaledge Flex Index

$$FlexIndex = \frac{L^3}{E * (OD^4 - ID^4)}$$

Flex Index for Double Portaledges (lower numbers are better)

Material	OD	Wall	ID	Length	L/I	Material E	Flex Index
AS Alpin Double	1.125	0.039	1.059	75	27.3	10000	9.3
ASRD CHF Cube	1.125	0.039	1.059	84	42	10000	9.9
AS Great Tower (T)	1.125	0.039	1.059	75	27.3	10000	12.5
Flash	0.875	0.035	0.805	75	28	29700	11.1
Metolux	1.125	0.039	1.059	84	42	10000	13.1
D4 (hybrid aluminium)	1.25	0.039	1.154	80	42	10000	8.1
D4 Carbon (TSA)	1.1	0.036	0.97	80	42	10000	7.3



Eliminating Flex is one of the major features of the new D4 Design. The flex index is useful to compare frame materials of other portaledges and other materials.

Proof of Concept • added on February 9, 2017

9 of 26

Any explorations that test ideas and functionality.

Portaledges allowed for a new level of comfort and safety on multi-day vertical ascents on big walls all over the world. Bigger and bolder big wall routes are being climbed without recourse to fixed ropes (and thus less, not more, gear), and portaledges are continuing to evolve into more structurally solid, weatherproof affairs, such as the lightweight six pound titanium A5 shelter used by Catherine Destivelle for her nine day solo first ascent of the Dru in 1991. Modern vertical shelters have allowed smaller and lighter teams to push standards of commitment on the world's biggest rock faces.

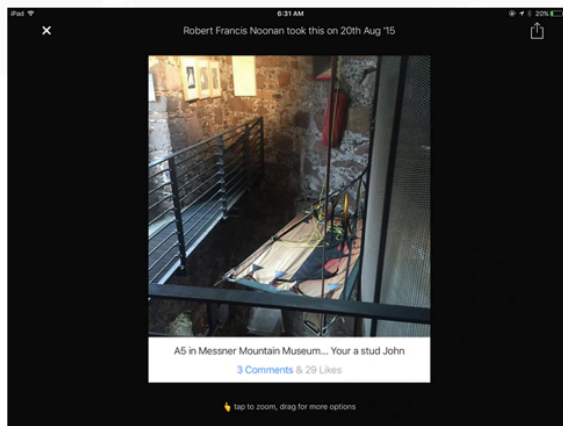


John Middendorf has been designing portaledges for 30 years. This new design is his best yet!

Proof of Concept • added on February 28, 2017

10 of 26

Any explorations that test ideas and functionality.



John Middendorf's previous design is legendary--here it is in Reinhold Messner's climbing museum.

Proof of Concept • added on February 28, 2017

Any explorations that test ideas and functionality.

11 of 26



John Middendorf's world's lightest portaledge was exhibited in the Torino Design Festival in 2008. John's new design has the potential to be even lighter and stronger.

Functional Prototype • added on April 2, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.

12 of 26



D4 Portaledge being tested on a big wall by John Middendorf during Kickstarter (March, 2017). Photo by Simon Mentz.

Functional Prototype • added on April 2, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.



Latest Top Vent Design.

Proof of Concept • added on April 2, 2017

Any explorations that test ideas and functionality.



Works great in trees!

13 of 26

Support

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For \$10, you
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14 of 26

Support

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Proof of Concept • added on April 2, 2017

Any explorations that test ideas and functionality.



My shop.

15 of 26

Support

Pledge \$1

Be part of 1

For \$10, you
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appreciation.

Design Prototype • added on April 2, 2017

A prototype that matches the function and appearance of the final product but is made in a different way.



John Middendorf working on the Deploy System Haulsack...

16 of 26

Support

Pledge \$1

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For \$10, you
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appreciation.

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Production Prototype • added on April 2, 2017

A prototype that matches the final product in appearance, function, and manufacturing methods.



Tube bending in Tasmanian shop (courtesy ABC news)

17 of 26

Support

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For \$10, you get an awesome product and you a D4 sti appreciator

ESTIMATED

Production Prototype • added on April 2, 2017

A prototype that matches the final product in appearance, function, and manufacturing methods.



Tubes ready (courtesy ABC news)

18 of 26

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Functional Prototype • added on April 2, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.



New deep wall corner pocket for secure fly attachment.

19 of 26

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Functional Prototype • added on April 2, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.



Proto 5 ready for Alaska

20 of 26

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Functional Prototype • added on April 2, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.



Pole "keeper" for tangle free deployment and pickup.

21 of 26

Support

Pledge \$7

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you a D4 sti
appreciation

Functional Prototype • added on April 2, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.



New Flypole concept--attaching pole to bed and suspension with greater adjustment potential.

22 of 26

Support

Pledge \$10

Be part of ti

For \$10, you c
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you a D4 stick
appreciation.

ESTIMATED

Functional Prototype • added on April 2, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.



Showing pole system and beefier 2" webbing corner reinforcements.

Functional Prototype • added on April 2, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.



New Waterproof Zippered Door detail.

23 of 26

Support

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ESTIMATED

24 of 26

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ESTIMATED

Functional Prototype • added on April 2, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.

25 of 26



Zippered Door for the D4 Portaledge

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ESTIMATED

Functional Prototype • added on April 2, 2017

A prototype that demonstrates the functionality of the final product but has a different appearance.

26 of 26



New Zippered Door Design--Simple, effective, light! (Animated GIF)

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ESTIMATED

UPDATE 1

20 ledges pre-ordered on Day 1!



John Deucey Middendorf **Creator**

March 2, 2017

Dear Supporters:

Thank you for a great first day! We really appreciate your interest and support for this innovative new portaledge, and we are very much looking forward to supplying each and every portaledge backer with the finest stronger and lighter portaledge available today. And many thanks also to the supporters who opted for the Buddy Bag, patches, and decal rewards--so much appreciated!

As of mid-day on Day 2, we only have seven more portaledges available for 2017 delivery, so please share with your friends who might need a portaledge for their vertical camping adventures.

By the way, this is also the first portaledge truly suitable for tree-camping thanks to its rigidity even in a tree-loading situation (where all the forces are on one point of the frame) thanks to the hybrid diameter larger middle tube of the D4 design. So tell your tree-camping friends as well!

Today I finished the initial pattern for the Haulsack, and I was very pleased with the new fit of the ledge, fly and flypole all in its compact zippered haulable pack. Along with its lighter weight, the smaller packed size really makes this system tempting to bring even on the most minimal camping excursions.



Version 3 of the Haulsack--still a prototype but coming along. Very compact--inside is the ledge, fly and flypole.

Thanks again for your support, and please keep spreading the word, as we do hope to establish our company further with lots of new ideas on the table for fun outdoor tools.

PS. Here is the way the haulsack works again for reference--the way the ledge and fly can be integrated enables full stormproof deployment in minutes.

D4 Ledge set-up sequence with new ez-deploy haulsack



Ledge and fly can be packed and unpacked as a unit for quick deploy.
Haulsack has pockets for fly and poles. No more jumble of fabric and tubes coming out of a sack.

D4 Haulsack Deployment System

Cheers!
John Middendorf

Update 2: now taking orders for 2018!



John Deucey Middendorf **Creator**

March 4, 2017

Dear D4 Portaledge Supporters:

Wow! We reached our kickstarter goal for the D4 Portaledge in less than 3 days! We are feeling very excited about seeing the D4 out in the climbing world!

I want to thank all of our supporters and so many others for their encouraging words! We have been inspired and grateful for the amazing response!

2018 OFFER--please share!

Due to the fantastic support, we are offering the first 20 ledges 2018 ledges at a 10% discount, so you can order them for your 2018 big wall season through our Kickstarter for \$1080, \$120 off the normal retail. Note that these come with fly, fly-pole, and haulsack, the complete set-up for all your vertical adventures.

Please let your friends know about this offer, the D4 Portaledge is sure to be in high demand in the coming years, and we will certainly be building them first to our initial Kickstarter supporters before they would be available in shops.

Please share this Link: [D4 Portaledge Kickstarter 2018](#)

Product Updates:

We are continuing to refine the product and send our first prototypes to key product testers. Because of our confidence that the structural strength of the D4 surpasses all other designs, we have outfitted Steve and Jen of TheTreeProjects.com with Prototype #2 to be used this weekend in some of Tasmania's tallest trees, and in the coming months for their amazing work in raising awareness of the unique values of the world's trees. Tree set-ups are one of the most severe loading situations for a portaledge due to the fact that the load is carried fully by the middle of the ledge. The D4 is built strong and light for every loading situation, and we look forward to hearing of the increased mobility (packs small for moving up the tree) and comfort with the D4 ledge from our tree testers.



Jen and Steve checking out their new D4 Portaledge

John has been refining the design of the D4 haulsack, which is getting rave reviews on many Facebook and [Supertopo](#) conversations. This design simplifies the setup and packing up of the portaledge, something every climber has previously struggled with at one time or another. Every version gets a little better!



John working on the third version of the D4 Haulsack System.

Barry has put the finishing touches on the new top vent system, and this first one is being sent to Marek Reganowicz who is now in Clyde River, so he can test out our new material revisions. For Marek's first wall in Baffin Island, he will be climbing with a D4 ledge and our original chosen fly material, but since then we have chosen a superior fly material, so we look forward to his comparative review and feedback for his second wall project up in the Canadian Arctic.



Barry dancing with his latest fly.

Frame production for the prototypes goes well, and even here, we are continually creating even stronger and better ways to create the best product for our upcoming Kickstarter batch.



Tubeing for Proto#3 ready for bends and assembly.

Thank you again so much for your support. John will be climbing with the D4 portaledge in the next week or two, so please check the [Facebook page](#) for updates, where he hopes to post Instagram/Facebook pictures of the ledge in use from the field.

Yours

The D4 Portaledge Team.

UPDATE 3

D4 portaledge in action



John Deucey Middendorf **Creator**

March 16, 2017

From halfway up Australia's iconic big wall, at 250metres vertical, Ozymandias at Mt Buffalo national park:

The D4 ledge is performing flawlessly. Packs small so fits inside the haul bag well, simplifying hauling. Sets up easy, and nice and roomy for two tall folks (me and Simon Mentz). The weather looked iffy today so we decided just to hang out for the day in this most exposed spot, very scenic view!

Making small design changes to enhance the ledge's convenience. Really happy with the D4's compactness and lightness when packed, and the roominess and stability when deployed.

More details once we return to the horizontal.

Cheers! John Middendorf



field design work



Where we are at this moment. Photo by Michelle Doherty, mt Buffalo park ranger.

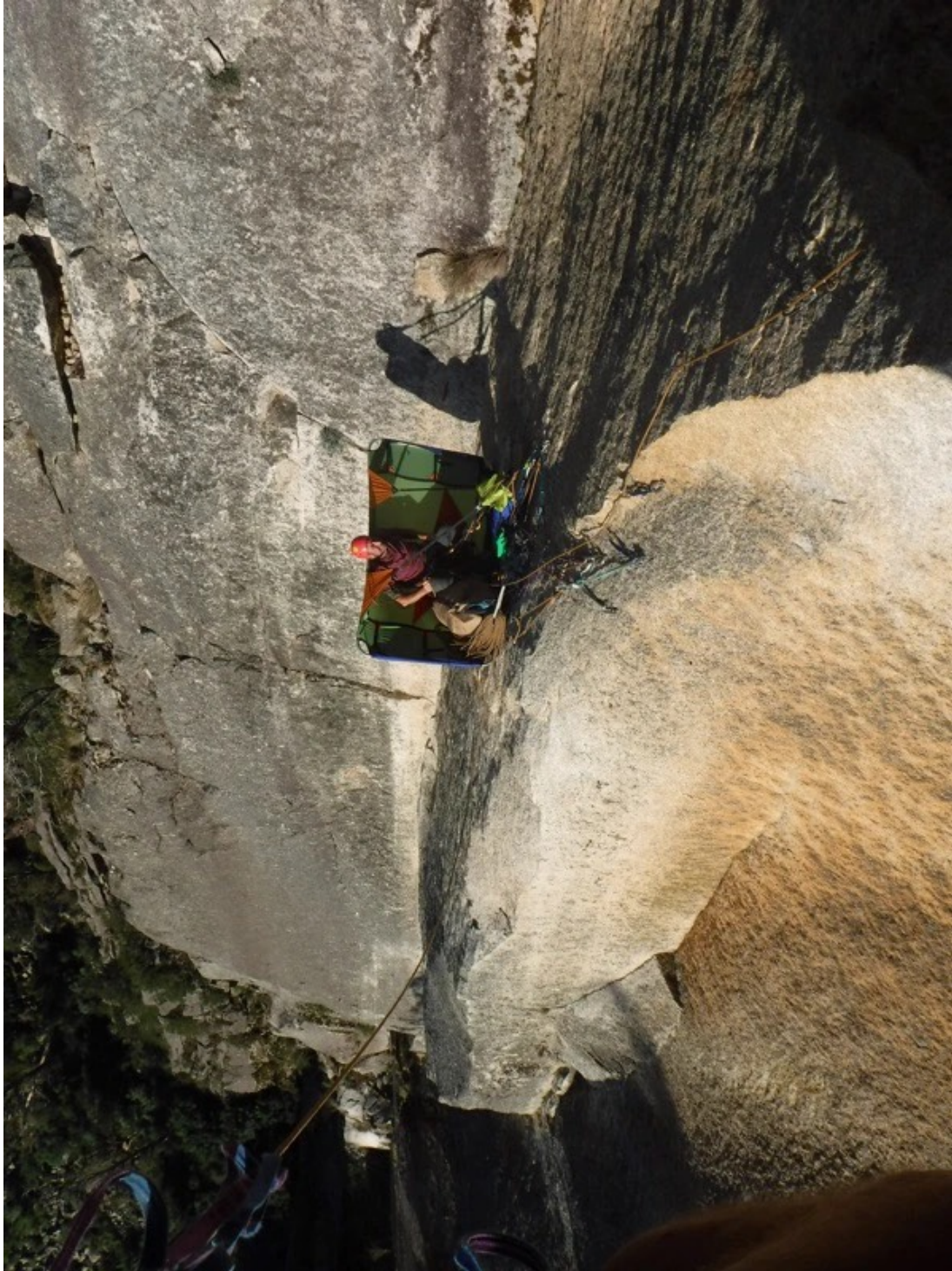
Update #4--D4 Portaledge getting better and better!

John Deucey Middendorf **Creator**

March 26, 2017

D4 Portaledge Update March 24, 2017

Exciting things are happening in the continuing development of the D4 production Portaledge. First, the ledge has been wall-tested by its inventor, John Middendorf, on Ozymandias-- Australia's iconic big wall in Mt. Buffalo--see the [Ozy Trip Report](#)) The four major new features [namely, the hybrid diameter tubing, the curved corners, the four-point equalising suspension, and the new D4 Haulsack] have performed amazingly well, each bringing new significant improvements to the modern portaledge design.



D4 Portaledge on Ozymandias, Mt. Buffalo. Photo by Simon Mentz.

First Wall Review: The curved corners and the hybrid-diameter tubing design create an incredibly rigid ledge, with almost no flex even when dancing in the portaledge (Simon Mentz, my partner

on Ozymandias, will be working on a video documenting our climb). The four/eight point equalising suspension system exceeded all expectations to make a strong and stable platform with no micro-shifts of the ledge (as typical with 6-point systems) while moving about, while also minimising extra weight and creating simplicity in adjustment. The Ready-to-Deploy Haulsack is a big breakthrough and enables the ledge to be deployed and packed up quickly and efficiently--plus the whole system is so compact that it's super easy to shove it inside even an already-packed haulbag (though of course it can be hauled separately too), so there's no reason not to use the D4 as a super comfy belay ledge!



The D4 is so easy to deploy and pack up, there's no reason not to use it as a belay ledge on the big stones!

Standard Features: The overall weight of complete portaledge system (ledge, fly, fly pole, haulsack, and included quicklink for the fly/ledge attachment (saving a carabiner) is now at 16.2 lbs.

(7.3kg.), a bit heavier than the first protos primarily because we have upgraded to a beefier waterproof fly material--but overall, the D4 is still lighter than even the competitor's single portaledges! We have innovated new ways to construct the fly and vent system, and the fly fits snugly on the frame even before tightening the drawcords! The prototype beds are made from lightweight 210D Dyneema fabric, which offers uncompromising strength and puncture resistance. Even though this material is very expensive and generally only seen on high end packs, we plan to use it for production beds due to its exceptional and unique characteristics of lightweight strength.



D4 Ledge in the Tarkine. Photo by Steve Pearce.

Prototypes and Testing: We are continuing to send out more prototypes for testing and feedback. Yosemite Demo #1 goes out on Monday to Eliza Kerr, who plans to climb as a mother/daughter team on El Cap in April; this ledge should be in

continuous use in Yosemite for the next few months. [Steve Pearce](#) of [The Tree Projects](#), has given us glowing reports of the ledge after attending the Tarkine Tree protest--this ledge has also gotten wide coverage by the [Bob Brown Foundation](#). The D4 portaledge is really the first true "tree portaledge", with minimal flex even with only one frame point of contact. And we should soon hear back from Marek Reganowicz, who is scheduled to be completing his first winter ascent in Baffin Island.



Steve Pearce during a Tarkine Tree Protest--notice no flex of the ledge even though the frame has only one point of contact. No other ledge will be so rigid in this situation.

We are also continuing to get additional coverage in the media as interest in this new paradigm in portaledges increases, including [Gripped Magazine](#) and [Gear Junkie](#). Additional links if you have not seen them are here: [Business Insider](#), [ABC Radio Interview \(w/ pics\)](#), [ABC Online](#), and [Big Wall Gear Facebook page](#).

KICKSTARTER--Tell your friends!: We still have 16 ledges available at the Kickstarter discount (\$1080 complete with ledge, fly, flypole, and haulsack--the best deal in portaledges on the market) , so please share the link with your friends: <http://www.kickstarter.com/projects/1188459201/the-d4-portaledge>.

Even if your friends do not need a portaledge, we have cool

perks and the funding will be used to sponsor the most extreme big wall expeditions worldwide. We know this new portaledge will be in high demand once the big wall season kicks into gear, but as we are only committing to producing Kickstarter orders this year, order soon! *Last week for the discounted Kickstarter orders!*

Other things: I have updated the [Set Up Sequence video](#) showing the set up by assembling the long tubes first, then the end tubes. However, Steve Pearce has since discovered an alternate method, and tells us he had an easier time setting up the end tubes first (making two big "U's"), then the long tubes. Either way, the deployment and pack up of the D4 ledge is really quite straightforward and intuitive, and much easier than other designs, thanks largely to the new D4 Haulsack design and integrated fly/ledge ability.

There are ongoing tweaks to enhance the usability of the ledge and fly, and we are dialing in the "camping features" such as the optimum lengths of the adjustment straps, position of clip-in daisies, and the way the fly pole attaches. We are also working on a new innovative fly door, which we plan to extensively test to ensure the storm-proofness of the ledge, but it will likely become a standard feature in our Kickstarter batch, as it really offers amazing versatility--more details to come soon. We are committed to offering the finest uncompromising tools for every vertical camping need!

Thank you for your ongoing interest in this project!
Yours, John Middendorf.



Detail of the fly pole attachment, as well as new 2" web reinforcement at wall side corners--totally bomber!



Fly Pole setup now part of frame, rather than fly, increasing the usability of the system.

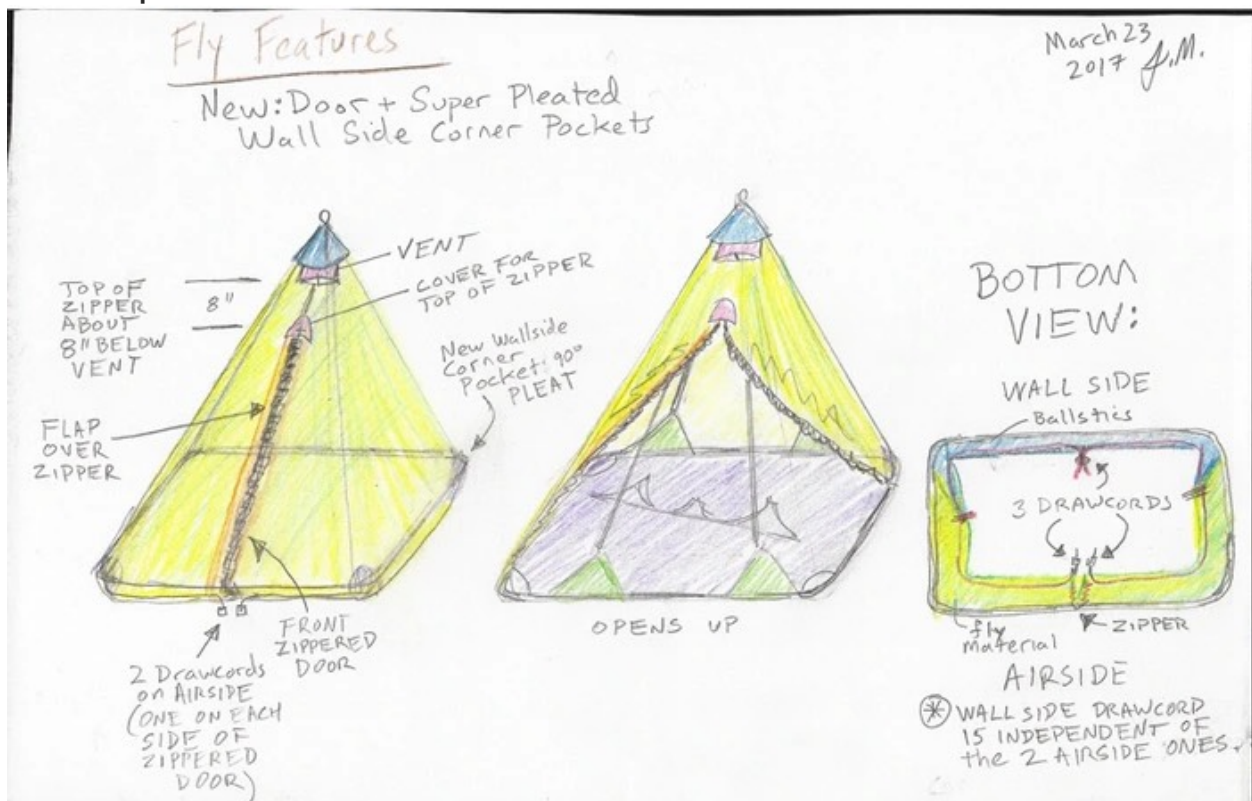
D4 Portaledge Update 5-- Last day to order, and new innovations.

John Deucey Middendorf **Creator**

April 2, 2017

D4 Portaledge Update--Last chance to order a D4 Portaledge!

The Big Wall Gear D4 Portaledge innovations continue, with the first prototype with the waterproof zipper fly door concept completed and ready to go out to Twid Turner for his Alaska big wall expedition this week.



From Concept to Prototype in a week.



First Prototype ready for expedition testing in Alaska for Twid's April big wall.

We so appreciate those who have contributed to the Kickstarter.

We have had fun being open with the design process, and though we know our new innovations will be widely copied in the coming years, if history is any guide, the original will always be the best!

12 hours left to order!

Please share and let anyone who might be interested in the lightest, strongest and most compact full-size two-person single-point hanging vertical cliff and tree camping system know about our Kickstarter--only 12 hours left to order! We are making no compromises in our design and material selection, and our Kickstarter discount makes it certainly the best deal ever for a complete expedition quality hanging tent system. We appreciate your interest and support!

Yours, the Big Wall Gear Team:

- John Middendorf
- Barry Ward

Update 6:

Kickstarter Successfully Funded--Thank You!

Dear D4 Portaledge Backers: The D4 Portaledge Kickstarter has ended, and we thank everyone for supporting this project and helping to usher in a new paradigm in hanging expedition tent technology!

For those who supported this project with perks, we thank you sincerely and expect to ship your orders out in the next few months. For those who ordered a D4 Portaledge, you will soon have in your hands the strongest, lightest, and most compact folding expedition portaledge ever!

We are currently continuing to build the series of planned prototypes that are going out to some of the wildest places on Earth with some of the best big wall climbers in the world for product testing, and feel very confident that our recent developments and innovations will be all incorporated in the final production design. Our plan is to start building the Kickstarter portaledges in mid-May, and we will ship as batches are produced, so early backers should see theirs by the start of summer. Yours in appreciation, John Middendorf

Update 7:

Quick D4 Portaledge Update

Hello D4 Portaledge Backers-

If you haven't already, please be sure to respond to the "Backer Report" that was sent to you earlier--this is very important! We haven't yet seen the funds form Kickstarter, perhaps they are waiting until everyone fills out their backer report! ;)

We are very excited about our upcoming task of building 40 of the best portaledge ever! We are gearing up for full scale production in mid-May, and expect to be shipping out the first ledges in June or July. I am about to place the order for 250 pounds of aircraft aluminum tubing, and Barry is poised to order large rolls of materials, including rolls of the very dear but absolute best portaledge bed fabric--Dyneema.

We are still making a few minor changes to the design based on our initial feedback, and most likely committing to our new waterproof zippered door design for all backers, as this design is looking good and adds incredible versatility to the whole system. We haven't yet heard directly from Marek in Baffin, but his girlfriend writes: *"Marek was climbing solo, using the D4 portaledge and he is very satisfied with it :)"*

Eliza used it for a couple days on El Cap but unfortunately turned back for the moment by the weather (back again in early May). She writes: *"I absolutely love that it's not hard to get it in the bag! Brilliant design with the zipper and all."* and *"I am SO delighted by the size and weight of your ledge. I'm not exaggerating when I say that carrying the portaledges down after a wall is one of the hardest and most intimidating parts of the whole ordeal. So thank you so much for your innovation."*

In terms of other demos, we have built and shipped Twid Turner his D4 ledge for his Alaska expedition, and are starting on the two for Mike Libeck's upcoming Greenland big wall trip.

Thank you again for your support!

John Middendorf

UPDATE 8

New improvements to the D4 Portaledge--the finest portaledge ever designed!

John Deucey Middendorf **Creator**
May 21, 2017

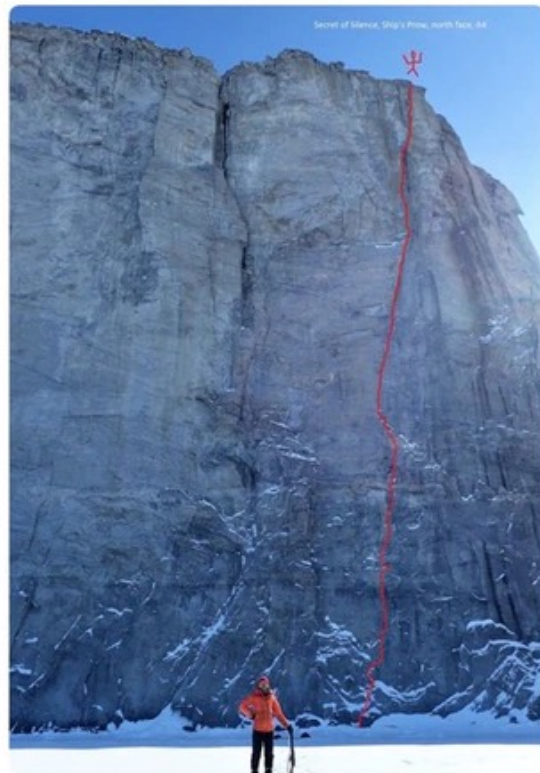
D4 Portaledge Kickstarter Update--May 21, 2017

We have been hard at work making further improvements and new innovations to further enhance our revolutionary new D4 portaledge. A number of prototypes have been out in the field, and all reports have confirmed that the new D4 design is truly a game changer for cliff and tree camping. Based on in-field testing, we have made some significant new improvements to our design in addition to the initial four major innovations (see [D4 Kickstarter](#)) that our portaledge brings to the vertical world.

But first, some user quotes:

Marek Reganowicz (after 30 days living in the D4 ledge during two new Baffin Island solo winter first ascents, April/May 2017):

- *"At first, I worried (as the ledge is very light) and thought the frame design very delicate, but soon realised that it was very good, very strong--I was so happy and confident with everything--perfect!"*
- *"No question it is something new and better."*
- *"Definitely no problems setting up the frame--much easier to deploy than the BD".*
- *"Any problems (due to winds, storms, etc.) were solved because it was so lightweight--important because as a solo climber I had to deal with any problems by myself."*



Marek's two new solo Baffin walls--30 days living in the D4 portaledge!

Twid Turner, who has most likely spent more portaledge nights on expeditions around the world than anyone, reported after his recent trip to Alaska, May 2017) :

- *"Super light a real winner. Very quick to put up the ledge, easy fitting. Super quick to take apart, too. Love the four-point suspension and ready-to-deploy haulsack. Brilliant."*

John Verbeck, who used it on the Zodiac:

- *"Lightest, smallest packing portaledge ever--amazing."*

- *"The haulbag/deploy system...this just blew me away. I had my partner who had never set up a ledge before, and watching how she intuitively unpacked it was awesome. No other ledge sets up with such ease."*
- *"Super impressed! You really nailed it!! The four point suspension, rounded corners, size, comfort, just amazing John. One more step in the evolution of wall climbing, definitely going to change the way we climb big walls. Absolutely amazed by this ledge, Middendorf, you've done an amazing job!"*



John Verbeck--the man, the myth, the legend.

Eliza Kerr, during/after her mother-daughter ascent of the Zodiac, May 2017:

"First of all, as a relatively slight woman, I am SO delighted by the size and weight of your ledge. I'm not exaggerating when I say that carrying the portaledges down after a wall is one of the hardest and most intimidating parts of the whole ordeal. Love how light and packable it is. Thank you so much for your innovation."



Eliza Kerr photos from their mother/daughter ascent of the Zodiac

NEW INNOVATIONS:

A sampling of some of the new innovations to report:

New patent pending stormfly system, "The Cape":

The single seam zippered fly has allowed a radical departure from the traditional drape over fly which requires a drawcord closure to secure to the ledge. Instead of a drawcord, we have created deep form-fitted pockets in each corner of the ledge. The fly gets fitted to the frame with the zippered door open, once the zipper is closed, it fits like a form fitting bedsheet onto the

frame--no more fumbling underneath the ledge with drawcords!
We also offer corner tensioning straps to ensure that the new D4 fly will be the most readily deployable, wind and storm proof fly system ever developed for portaledges (and that includes my previous Cliff Cabana Expedition stormfly design where the ledge is put inside the fully enclosed fly for security in high winds). We have also made revised our new revolutionary D4 venting system to be even more adjustable for truly expedition conditions when cooking inside the portaledge is necessary.



new patent pending D4 fly system.

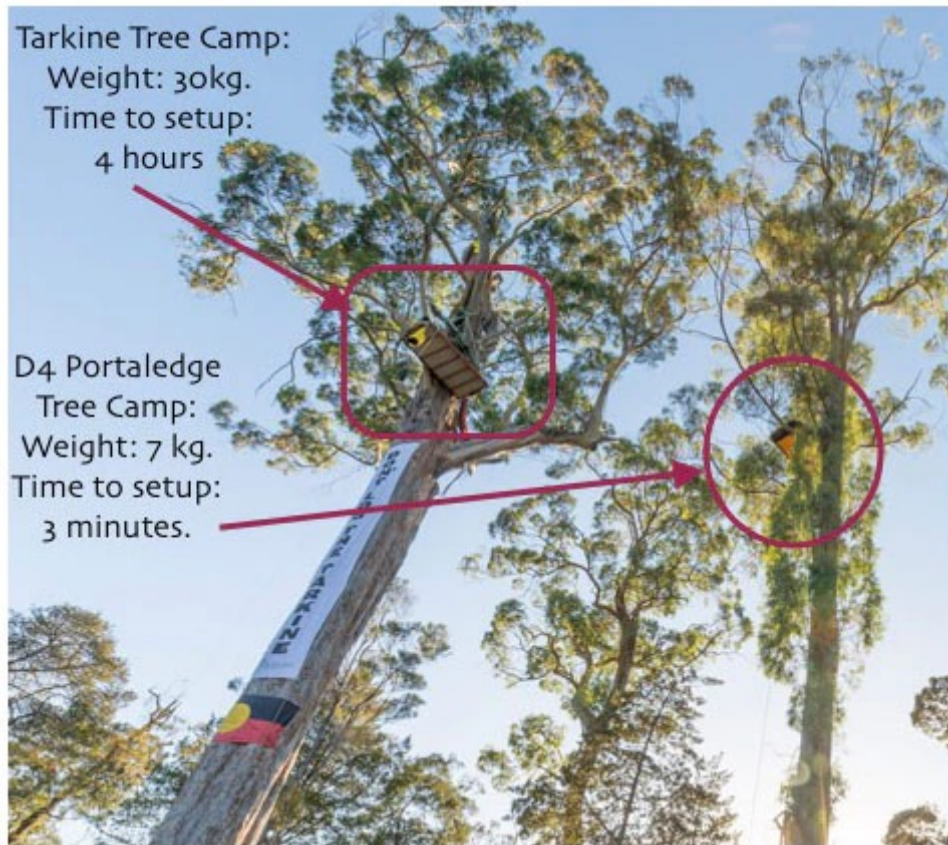
--We have also enhanced the internal space with our flypole system. Instead of the tent pole being part of the fly, as all previous portaledge designs have been, we have made the fly pole integrated instead with the frame (the fly pole secures to the suspension and the bed instead of the fly) . Not only does this create a more structural system, but also allows more

adjustability to maximise the internal space created by the flypole. Combined with our new zipper door system and the new corner form fitting fly that can be quickly secured and tensioned, the integration of all these aspects combine to make a much more stormproof, secure, and versatile and highly adjustable shelter system that can be perfectly tailored to the changing conditions found over the course of day and night on the vertical.

New unified frame system with continuous shock cord:

--Last but certainly not least, we have revised our unique curved corner, hybrid-diameter tubing design to incorporate a unified frame, continuous shock cord system, the first of its kind on a 8-piece frame design, which makes set up even easier and foolproof. This revision makes the D4 portaledge not only the most compact full-size portaledge ever designed, but also, by far, the quickest and easiest to deploy. Watch the [video](#) to see the new set-up in action. (Link: <http://www.youtube.com/watch?v=MizZFQ5xjil>).

We have also been continuing to outfit tree campers, and our ledges will be featured in several worldwide spots during the upcoming June event, "[The Big Canopy Campout](#)". Tree campers, who never really adopted portaledges for tree camping previously largely due to the hassles of setup (solved with our design), are raving about our design, primarily due to ease of deployment, but also thanks to our hybrid diameter engineered frame design, which keeps the ledge rigid even when loaded against a single point (i.e. a tree trunk as opposed to a flat wall), without the need for a clunky, heavy, and hard-to-set-up spreader bar.



Tree Campers are catching on...

PRODUCTION PLANS

All the materials are now ordered, as well as all the tools in place for our Kickstarter production. We are committing to only the finest materials for our Kickstarter batch, and will be using the Dyneema bed fabric which, though expensive, is super strong and light, saving over a pound of overall ledge weight. John Middendorf will be travelling to the USA this month to set up frame production in the USA (it was just too costly to manufacture the frames in Tasmania). We plan to begin full scale production in mid-June and expect to start shipping the Kickstarter ledges sometime in July. We so appreciate those who supported this project, and we are well on our way to redefining the nature of vertical camping once again!

Yours,
John Middendorf

P.S. If you haven't seen it, also check out Simon Mentz's film of our Ozymandias big wall climb last month: <https://www.youtube.com/watch?v=nsqOhre63IY> (Portaledge Orgy).

UPDATE 9

D4 Portaledge Update 9-- Feedback from the field



John Deucey Middendorf **Creator**
July 3, 2017

Dear D4 Portaledge Supporters:

Happy Fourth of July Weekend (in the USA)!

Apologies for the lack of updates since May 21. An incredible amount of progress has been happening with the D4 Portaledge design.

Soon after the last update, John Middendorf travelled from Hobart, Tasmania to Durango, Colorado, where members of the former A5 team gathered: Barry Ward, Jason Brooks, and John Middendorf. Barry and John experimented with various concepts and worked out some exceptionally clever design details, such as our new corner-pocket, drawcord-less Expedition Stormfly. It now has a novel tensioning system at each corner which ensures a taught fly no matter what the angle of the wall (portaledge flies are designed with a flat vertical wall in mind, but need adjustment when on a slab or hanging from a tree). Meanwhile, Jason has

been building frames to the highest of craftsmanship possible with his incredible attention to detail.

We've also been hard at work with finalising fabrics and hardware, reinforcing wear points based on field feedback, finding the best system for applying logos to the flies, and a hundred other things to ensure the best portaledge ever.

Here's a sketch of the production fly design:



sketch of new D4 portaledge fly

We've also redesigned the two-point Shark Fin design which we feel is the best for strength, while also enabling cooking in the center with a hanging stove.



New D4 production frame, bed, and suspension

Good News: we've also begun formal production of the Kickstarter batch, with all materials ordered, and at least the first 12 portaledges are expected to be shipped out by the end of July. (the rest of the Kickstarter batch of 40 portaledges are expected to be completed in the following months).



Barry at work in his Durango Sewing Solutions shop.

FEEDBACK FROM THE FIELD:

The D4 prototypes have been out all over the world with selected product testers. We have gotten a lot of feedback, and several issues were worked out satisfactorily with design tweaks thanks to the incoming feedback.

The D4 portaledge is an exceptionally lightweight and compact full-size two-person portaledge. As such, some design tradeoffs unfold during the innovation of the five major new portaledge

concepts that make this ledge the finest expedition tool ever designed.

I'll go over some pros and cons of the five major innovations of the design:

PROS AND CONS OF THE D4 DESIGN:

Hybrid Diameter Tubing Design:

- Pros: This engineered re-design of the tubing specifications eliminates the need for a spreader bar and adds significant rigidity and strength to the design.
- Cons: None.

Curved Corners:

- Pros: Lighter than block corners, increased rigidity (especially when compared to the open block corners on competitor's ledges), smoother and snag-free flagging (PTPP flagged this ledge for over 3 weeks on his recent second ascent of Adrift, and loved the way the curved corners never snagged like block corners do).
- Cons: No corner point to create 6-point suspension.

Four-Point Suspension:

- Pros: Lighter (saves over a pound compared with a six-point system). Less Microshifting of ledge with two people (the middle strap of the six-point system acts as a fulcrum point, increasing the frequency of movement during weight shifts). One person can sit in the middle of the ledge with legs hanging out in space (no centre suspension to get in the way).
- Cons: Harder to adjust perfectly flat: this design seems to be more prone to "taco-ing" when not adjusted properly. But with practice and small adjustments to each appropriate strap, once it gets flat, it stays flat (as long as the bed tensioners are fully tensioned only when ledge is also flat). I will try to explain more tips in the "how-to" manual. Tipping point is about 4" closer to center of ledge than a traditional six-point system. For these reasons, the D4 ledge requires

more practice in proper set up prior to experimenting on a tricky configuration. This is part of the price for lightness, but experienced wall climbers have found the adjustment straightforward (John Verbeck writes: "*I really like the 4 point connection! Some people like Hummers while others prefer a Lotus--the D4 is a Lotus! Ha!*").

D4 Deploy Zippered Haulsack:

- Pros: Nothing but raves for this new system of packing and unpacking the portaledge. The way the fly tucks into the haulsack ready to deploy, combined with our new continuous shock cord frame, set up is super quick and simple.

Zippered Expedition StormFly:

- Pros: The single zipper fly door is proving to be one of the those ideas so simple but also so effective and better than any other system, it's hard to believe no one has come up with it before (including me). See above illustration for key points. The system allows easy entrance and exit from the ledge (always stay tied into the main lead rope!), as well as allowing easy and quick full opening of the fly to air out the ledge and enjoy the clearing between storms.

In other news, we have gotten great feedback from two locations (Scotland and Tasmania) who have used the D4 in [The Big Canopy Campout](#). Photos have been posted on the BigWallGear Facebook page at <http://facebook.com/bigwallgear>



Steve Pearce photo during the Tasmania Big Canopy Campout



Ollie Laker photo from the Scotland Big Canopy Campout

There is lots more to report, and many more awesome photos and quotes from our field testers, which I will also try to post soon.



Today (the ledge for Chris Trull, who got me started on this project)

UPDATE 10

First Draft of How-To Manual for the D4 Portaledge

July 10, 2017

First Draft of How-To Manual for the D4 Portaledge

We are working on our "How-To" manual for the D4 Portaledge and have sent the first draft out to all our product testers, who will hopefully provide further tips and insight:

- Marek Reganowicz
- John Verbeck
- Eliza Kerr
- Peter Zabrok
- Cam Burns
- Mike Libecki (now in Greenland)
- Chris Trull (who is just getting his)
- Steven Pearce (Tassie Tree Man)
- Ollie Laker (Scotty Tree Man)
- Simon Mentz

Here is the link: <http://deuce4.net/web/HowToD4Manual.pdf>

The manual will be updated based on further feedback, and is mandatory reading for all D4 Portaledge buyers. Of course we are super happy to answer any questions you have once you get your ledge.

Onward and Upward!

Update 11

D4 Kickstarter Update #11-- Production Underway!



John Deucey Middendorf **Creator**
August 9, 2017



D4 Portaledge Update--August 8, 2017

In July, John Middendorf, Barry Ward, and Jason Brooks met in Durango for two weeks where we finalised the D4 Portaledge

design as well as crafting the first batch and building all 40 ledge frames for the Kickstarter production. We have shipped out the first batch and are working hard toward fulfilling all our current orders in the coming months (30 more Kickstarter orders to go!). For people who have not yet received their ledge, please contact Barry directly for any shipping address changes:

gear@sewdurango.com

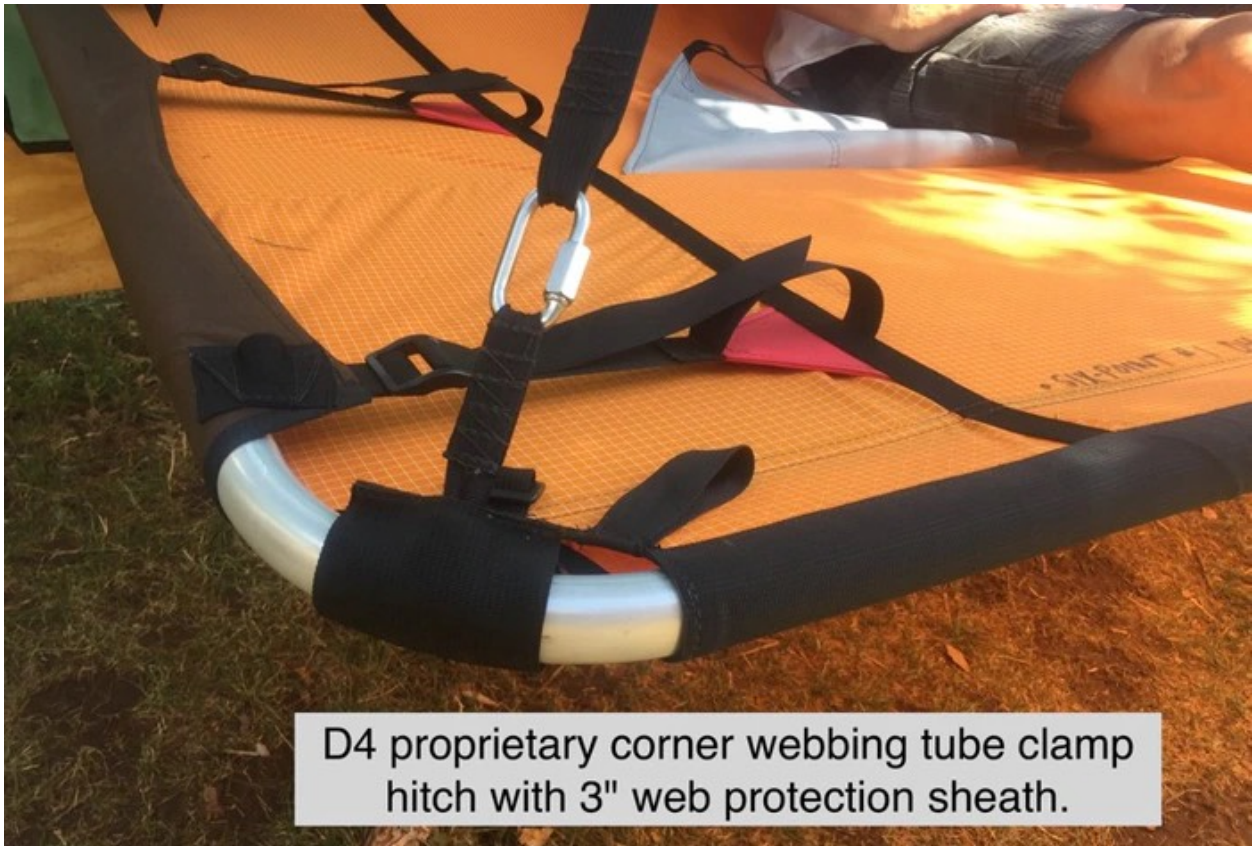


D4 Production, July 2017

We expect to be able to take new orders for the D4 Portaledge soon. Please let your friends know they can sign up for a D4 portaledge by going to the [Big Wall Gear webpage](#) and signing up for the next (post-Kickstarter) batch. The D4 is truly proving to be the best hanging tent system ever designed, and we look forward to be able to fulfil all demand in 2018.

DESIGN CHANGE--new six-point suspension

After considerable yet mixed feedback from our eight D4 prototypes which were tested all over the world in some of the world's most extreme conditions, we have decided to switch from the four-point suspension design to a traditional six-point suspension design. In doing this, we have innovated a new webbing self-clamping suspension corner connection which allows for some adjustability (useful for flagging the ledge--see PTPP's Facebook sketches), but also well protected from abrasion with a 3" web sheath.



D4 proprietary corner webbing tube clamp hitch with 3" web protection sheath.

New D4 corner suspension point

The four-point system relied on a pure fabric suspension with fins that not only supported the ledge in a load-distributing manner, but also saved about a pound of weight. The disadvantage of the four-point is that the ledge can appear to be less stable when initially loading the ledge despite the fact that when fully loaded, the four-point can be actually more stable as there is less micro-

shifting when two people move about normally in the ledge (and the center of gravity shifts).

The six-point system, by contrast, is a frame supported system, with six points of attachment directly to the frame. By all accounts, the six-point is more foolproof, especially when initially loading the ledge, as the four point could sometimes twist ("taco") if initially loaded off-center; thus, the "taco" issue is minimized with six-points of attachment. We have decided that a six-point is more appropriate for the D4, as we know this design will become the new standard for all portaledges in the world, and we wanted to make it as foolproof as possible and knowing that Yosemite is the where most of the world's big wall climbing takes place, where weight is not as big an issue.

In the future, we will reserve the four-point design for our dream to design the ultimate high altitude super lightweight carbon fibre D4 portaledge. With proper frame engineering, the new curved corners, as well as the slew of other new portaledge innovations we have originated in the past six months, such as the single seam zippered fly, I believe a fully stormproof, sub-10 pound ledge system that enables climbers to bivvy safely on the world's most remote big walls is now possible, and hope to one day procure the time, funding, and resources to further develop this ultimate ledge concept.

As such, our current production model D4 portaledge weighs exactly 18 pounds with fly, flypole, and haulsack. Since our initial prototype, which weighed 15.5 pounds complete, we have added additional reinforcements, the zipper for the fly, and two additional suspension points, adding a total of 2.5 pounds of weight. Note that this is still lighter than the competitor's (Black Diamond and Metolius) single-person ledges, and is far lighter per square foot of usable space than the other smaller (Fish and Runout Customs) ledges on the market, as the D4 portaledge is by far the lightest full-size (82" x 47") ledge, thanks to the re-engineered and innovative curved-corner frame design.



first D4 six-point prototype (actually the very first one I built back in Yosemite in the Fall of 2016 had the six-point but all subsequent prototypes had the four-point).

OTHER NEWS

HowTo Manual: We have updated our "How-To" manual, and it is recommended reading to learn how to use the D4 portaledge.

The link is here: [D4 HowTo Manual](#). Please note that we are using the webbing clip-in technology that was standard on all A5 portaledges and has stood the test of time, but the D4

Kickstarter portaledge does require manual seam sealing, and it is essential to be done correctly as explained in the manual. We do have plans to have fully factory taped seams in the future for the D4 Portaledge, but it was just not possible to do for our Kickstarter--thank you everyone again for making this new design and its evolution possible though your Kickstarter support!

Also, here is the recommended way to fold up the D4 ledge--we found that many methods work, but this seems to be one of the easier ways:



How to fold up the D4 Portaledge

SWAG: We have shipped out all out "Swag" orders: the Buddy Bags, D4 Stickers and Patches. Thank you again to everyone who has supported us, especially those who were not able to buy a ledge! I have designed a new quick-deploy hanging chair/ lounge system that will be offered at reasonable price-point and which I am currently testing and further prototyping, so hope in

the future I can tempt you all to support the Tasmanian shed innovation once again!

SLC TRADE SHOW: We had a good visit in SLC at the Trade Show. Gary at Liberty provided us with some floor space (and a beam) to show our D4 Portaledge to the many top climbers who were attending the show. Even though portaledges are so often depicted in the mainstream media, we had the only portaledge at the show! (as there has been so little innovation from the mainstream manufacturers in the past 20 years). Thanks and kudos to Andy Green who helped to make it all possible.



2017 Outdoor Retailer Show. Andy Green, Kurt Smith, Randy Leavitt, and Stevie Haston all were impressed with the ease of deployment and comfort of the new D4 portaledge system.

SHED CULTURE: We also had Bill Hatcher, one of the world's foremost adventure photographers, visit our "shed" in Durango. In Australia, innovation begins in sheds rather than garages, as garages are uncommon but sheds are plentiful, so we are happy that our production takes place in an American shed. Below are some of Bill's images.



Onward and Upward! Cheers, John Middendorf

D4 Update 12--for portaledge supporters--shipping times--please read

John Deucey Middendorf **Creator**

September 5, 2017

Personal message for Portaledge Supporters only

Hello Portaledge Supporters-

September is here and our goal is to ship out orders we promised for this month on time. Last Spring as you know, we offered a significant discount to the first 26 supporters, with the intent to get everyone their ledge in time for the Yosemite Fall season, which is starting now.

We have already shipped out almost half the September orders, and Barry is working hard to get the rest out this month. If we are late on the final few September promised ledges, I take full responsibility as I was in Durango in June and July and we made quite a few improvements in the design, which of course slowed down Barry's production. But he has recently been making up for lost time as I will describe further in the next public update. Attached to this update is a list of all portaledge supporters, including the ones promised for 2018. We hope you can have your placement on the list, and let us know a few things.

QUESTIONS FOR YOU:

1. If you are scheduled for a September delivery, but really don't need it this month, perhaps you could let us know. You will still get your ledge most likely in early/mid October at the latest, but might allow us to bump up a later supporter who really needs theirs for a Fall season project.

2. Likewise, if you on our Kickstarter list, and really need a ledge for a trip by a certain date this month, please let us know and perhaps we can make arrangements. As we are always looking for feedback and photos, we want to get as many ledges into active ascents as soon as possible to keep our momentum going.

3. Offer: we still have three of our original Four-Point suspension design ledges, and these are available upon request. As one can see on the [Facebook BigWallGear page](#), there are many initial users who love the four-point system--see our [prior Kickstarter update](#) for discussion of the differences and why we switched to the Six-Point for the main production. Since they are already made, we can ship out the Four-Points very soon! These D4 Four-Points are sure to be collector's items (though I do plan to re-visit the Four-Point design for a super ultra-light design).

Suspension Designs--original Four Point design on left, traditional Six Point (current production model) on right



Please let us know this week if you can by responding to this email. Thank you!! John Middendorf

P.S. We plan to have a Kickstarter D4 Portaledge photo contest with a several prizes for the best photos of our ledges in use, so please keep this in mind as you use your D4 ledges in the real world. Even if you just set it up in a tree in your backyard, we are interested in having a look at your photos, as we plan a bigger marketing push in 2018 and would love to share how people are fulfilling their dreams and having fun in our product.

Order	Kickstarter Name	Date Shipped
1	Quincy Milloy	7/24/17
2	Riley	7/24/17
3	wade morris	7/24/17
4	Sam England	7/21/17
5	Connor Brown	8/25/17
6	Justin Davis	8/16/17
7	sourisse	8/25/17
8	Peter Drzymala	8/25/17
9	Nicola	8/18/17
10	Vasile	(to Romania)
11	woodhead	sent
12	Roby	(will send to Yosemite)
13	Jim Brennan	sent
14	Michael Rieser	
15	Robert Hayes	
16	Mike Libeck	6/7/17
17	Steve Wakeford	(to France)
18	Tito	8/16/17
19	Bill Coe	
20	Larry Arthur	
21	Kevin Kent	
22	tim frankl	
23	James Arnold	
24	Ryan Gillespie	
25	Kevin Bradburn	
26	Seth Dilles	
Orders promised by 2018:		
27	Braden Downey	
28	James Donigan	
29	John William Middendorf	to deuce
30	Chris Lorimer	
31	Kristen anderson	
32	Mike Kavanaugh	
33	Jason Hall	
34	Jerry Greenleaf	
35	gwbarret@gmail.com	
36	Jonathan Wachter	

Update 13

D4 Portaledge Update September 2017



John Deucey Middendorf **Creator**
September 30, 2017



News from the Field:

Sam England reports: "Just got back from a successful trip to the East Coast of Baffin Island. The D4 kept us safe and sound during our Grade VI first ascent. The 4 point suspension ledge

performed excellently. We found that we saved a ton of space in our haulbags thanks to the integrated fly system. The size was perfect for us and we found it to be the easiest to set up ledge we've ever used."



Clyde Inlet, Baffin Island First Ascent: Sam England and Ryan Little

Pete Zabrok, who has recently witnessed at very close hand the largest El Cap rockfall in modern times, reported earlier on his recent ascent of the Waterfall Route: *"I just spent the night under nearly the full force of one of the world's most feared big wall waterfalls - Horsetail Falls on El Capitan on the Waterfall Route. Everything is essentially bone-dry. Absolutely unbelievable!! The D4 fly is ETS - Emphatically The Shit! Thanks Deucey!"*



Peter Zabrok is with John Deucey Middendorf.



5 hrs · Yosemite Village, CA, United States · 🌐 ▼

Well, that was dire. They certainly call it Waterfall Route for a reason! Scary as balls, that. Ryan Sheridan and Patrick McRedmond got their asses whooped, totally soaked to the skin. Me? Essentially bone dry. Thanks John Deucey Middendorf for your D4 technology rain fly! Worst storm in over 700 nights on El Cap but AOK.



Pete's Facebook post from the wall

Tree Climbers: Our D4 Portaledge has also proven to be a favourite with tree climbers, mostly due to its lightweight, strong, and compact folding features, and has recently been used on an two-week educational series in Tasmania. Links:

- [Tree House Challenge](#)
- [Video](#)
- [Local News Article](#)



The Tree House Challenge

PRODUCTION NOTES

We have now produced and shipped over 35 D4 Portaledges all over the world. We are currently only a few weeks away from our promised goal of the first 28 discounted Kickstarter D4 Portaledges offered for September delivery. Only four people who ordered the "September Ledges" are likely not to receive their portaledges by the end of this month, and we apologise to those four, but they should be shipped in the first couple weeks of October. The final batch of Kickstarter portaledges originally promised for 2018 will also likely be shipped in the next month or so, and we look forward to then accepting new orders for the over 50 requests on our D4 Portaledge waiting list (sign up at <http://www.bigwallgear.com>).

SUPER ALPINISM TOOLS

Below, another shot of Marek Reganowicz looking very comfy on the very first D4 Portaledge prototype, which he used for 30 nights completing two first ascents in Baffin Island earlier this year. Marek is currently in Yosemite with his latest D4 portaledge.



Marek is one of the leading super big wall alpinists that Chouinard predicted way back in 1963: *"Yosemite Valley will, in the near future, be the training ground for a new generation of superalpinists who will venture forth to the high mountains of the world to do the most esthetic and difficult walls on the face of the earth."* --Yvon Chouinard, 1963 AAC Journal

We are driven to help these superalpinists achieve their goals with new lightweight tools being developed at the D4 ("Deuce4") prototyping shed in Tasmania. Our latest invention is a superlight compact-folding, instant-deploy belay seat, which is currently being tested by product testers worldwide. We plan to offer this new patent pending tool in an upcoming Kickstarter.



New prototype D4 Mini Portaledges

Update 14 D4 Portaledge October Update--Rave Reviews

John Deucey Middendorf **Creator**

November 1, 2017



Good news! Last month, we completed all the "September Ledges" (the ones ordered at a significant early bird discount), as well as made headway into the Kickstarter ledges originally promised for 2018. In fact, we only have eight more to build to fully complete the Kickstarter, then we will begin building ledges for the 56 people currently on the 2018 D4 Portaledge waitlist (sign up at <http://bigwallgear.com>).

It has been a great year for D4 portaledge development and innovations, there are now over 40 D4 portaledges currently in use, and solid evidence coming in almost daily that the D4 is changing the game of big wall adventuring. No longer is a portaledge considered a huge heavy encumbrance, following the philosophy "*Good design is obvious ... great design is transparent*". Here are some highlights:

Robbie Brown

"The ledge is so comfy and light that we brought it on the one-day ascent of Wet Denim on Leaning Tower. This is a new style I've been thinking about for years, to enable the max comfort for walls in a push. I've never felt so good after completing an all-day

push with hanging belays! I really like the cornerless design, and the strength of the ledge is unquestionably better than the old design when it comes to hourglassing and pole flex--super stable and confidence inspiring with three monkeys in the ledge."



Robbie Brown on Wet Denim Daydream, Leaning Tower, during a 9-hour "party" ascent.

Rob Miller

Using two D4 two-person portaledges--each had their own--Rob Miller and Roby Rudolph recently completed an all-free new route on El Cap which is unique as it climbs over 70% completely new ground. A few years ago no one could have dreamed that all-free routes would be going up via mostly new terrain (i.e previously unaided) on El Captain. Perhaps this is why

the Direct Line is so spectacular, as it really consolidates the new genre. Rob writes:

"I was extremely pleased with the ledge and fly during the storm. It wasn't an epic amount of rain that fell but I was beside a 400' black streak that pummeled me pretty good throughout the windy night. I expected that I'd take on a fair bit of water but not so. Totally dry. Whatever the rainfly material is... it's friggin' awesome!"

More details on Rob's route [here](#).



Rob Miller kicking back on the D4 Portaledge during his free ascent of The Direct Line, 5.13+

Pete Zabrok

Pete continues to be our most prolific product tester, with another three walls this fall season with the D4 portaledge, to which he credits with saving his life in a storm on the Waterfall route. Pete recently modified an earlier prototype to his preferred 6-point suspension configuration. Many thanks to John Verbeck who made this modification possible, who writes:

"Testing the stability of the D4's new 6 point suspension system in the most asymmetric way, and its solid! Innovation occurs when many people come together to improve some aspect of the world around us... and the D4 is truly an innovative piece of climbing technology! Hats off to John Deucey Middendorf for designing this ground breaking ledge!"



Pete Zabrok, John Verbeck, and Tom Evans photos.

Marek Reganowicz

The D4 is designed with lightweight expeditions in mind, to enable climbers to push their dreams on remote walls where every ounce counts. Marek is one of the world's leading remote big wall alpinists, and we continue to outfit Marek with D4 portaledges, here he is on a recent training route in Yosemite:



Marek Reganowicz on Aurora (top right Tom Evans photo).

SETTING UP THE D4 PORTALEDGE

The D4 is definitely the easiest portaledge on the market to setup, but it still takes a bit of practice. We have a new video

starring Malcolm Matheson (HB) on how to set up the D4 Portaledge [here](#). Even though he had never set one up the D4 before, he did it quickly and efficiently, proving the quick deploy aspect of the new D4 innovations.

If you have a D4, please take the time to watch the current setup videos:

- [HB Hanging Setup](#) (4 minutes)
- [HB Fly Deploy and Take Down](#) (3 minutes)
- [Steve Quinlan Setup](#) (more tips explained in this video)
- [Setup Manual](#) (PDF)



HB after his first hanging setup of the D4, which took about 10 minutes.

Here is a report from a first time portaledge user, Kevin Kent:

"The ledge was great! Set up really easily and was super comfy! I love it! I've never owned or used a ledge before so I can't

compare it to anything but I'm definitely a happy customer. Initially I had a little difficulty getting the frame setting into place, but after a few times it seemed to break in and is really easy to set up now. I love how light it is and that it fits in the haulbag for the way down! I did watch the setup video which was helpful!"



Happy Customer Kevin Kent in Yosemite

More Feedback:

Love the D4 ledge! The D4 is the better portaledge by far! --Matt Lambert

Just got back from Yosemite. I picked my ledge up from the post office in Yosemite on Monday and immediately ran over to Washington column for some solo "cragging". I spent Monday night to Thursday night on the D4 and loved it. I really didn't find anything that wasn't outstanding on it. I love the 4-point suspension and was surprised how stable it was. Even when I hung it in a poor position to test it, it was rock solid. Set up was a piece of cake. The integrated fly and compact haul sack save a ton of space and I really appreciate the build/material quality.

Looking forward to spending many more nights in the D4. Truly bomber ledge. A+ Thanks! -Chris Lorimer

Hey John, Just got off El Cap a few days ago, did Native Son for 5 days with the D4. I didn't take the fly, the ledge weight with no fly is pretty impressive! --Tito Krull

I just wanted to drop the two of you a note about my new portaledge. It's obvious that the level of work both in design and construction is first class. I'm happy to have been part of your initial Kickstarter launch. You guys shaved ten pounds off of you ledge in comparison to the next best product. Innovation in industrial design should always be signified. I was once an inmate at an arts and design college so I get it about how hard the work really is. Thanks ! --Jim Brennan

NOTES ON THE DYNEEMA BED FABRIC

Several users have expressed concern for the lightweight bed fabric we are using. Initially we chose the Dyneema despite its high cost because we felt we wanted to supply the lightest and highest quality materials, but we will likely revert to a heavier and more traditional portaledge bed fabric. Here is a note I recently sent to Tito about his concerns and is worth a read for our Kickstarter supporters:

The Kickstarter was really a way to help develop the lightest ledge possible, and the Dyneema fabric saves almost two pounds over traditional portaledge pack cloth. One of the first D4 ledges, used in some Tasmania Tree camps, then by Marek, then passed onto another tree climber in the UK, has been used for about 50 nights and is still going strong. For your ledge, if you keep taking care of it, it will last for many walls. Dab any wear spots with ShoeGoo after each wall, and maybe bring some nylon sticky patches too. The Dyneema is tougher than it looks, tears don't propagate as easily as in other fabrics like pack cloth. We know it seems light and probably too stretchy (regarding stretchy though, I found it actually more comfortable in a way over a stiffer fabric), so we do plan to beef up the bed fabric (and the weight) for

future production as most people are using the ledge for routes where the extra pounds are not a major issue. Again, the Kickstarter was touted as a way for supporters to help develop the ultimate lightweight ledge and I think what it proves is that if I ever can fully fund my dream of creating the ultimate, sub-10 pound remote alpine expedition double ledge, the four-point suspension and the dyneema will be the way to go to save weight. Your support has made this dream more possible!

The new MiniMe and Other News

We continue our shack culture of innovation and have been developing a new instant setup belay seat (the patent pending MiniMe Insta-Ledge™), and a super cool innovative single ledge. As always, for more of the latest news on these and other developments, visit our Facebook page at: <http://facebook.com/bigwallgear>

Appendix --LINKS:

- [All Kickstarter Updates](#) (documents the innovation process)
- [Business Insider: The secret to conquering the toughest climb in the Himalayas may lie in a shed in Tasmania](#)
- [ABC News: Big wall climbing being reinvented in John Middendorf's shed](#)
- [Simon Mentz's Portaledge Orgy Movie](#)
- [John Verbeck Review](#)
- [Steve Pearce Interview](#)
- [The Tree Projects](#)
- [Bob Brown Foundation](#)
- [Gripped Magazine](#)
- [Gear Junkie](#)
- [Vertical Life](#)
- [El Cap Reports \(lots of pics of the D4 on El Cap\)](#)
- [Wikipedia Portaledge](#)
- [The D4 Portaledge Kickstarter](#)
- [D4 BigWallGear Homepage](#)
- [D4 Facebook Page](#)

Update 15: D4 Kickstarter Completion and Supporter Notes



John Deucey Middendorf **Creator**

January 5, 2018

Kickstarter Complete!

We did it! All Kickstarter orders were shipped and delivered in 2017, ahead of schedule. It has been a great adventure and journey since we reached our initial Kickstarter goal back in April within the first 72 hours!

Many thanks to all our supporters:

Huge Thanks to those who purchased a 2017 D4 Kickstarter portaledge: Quincy Milloy Riley McDonald Wade Morris Sam England Connor Brown Justin Davis Matt Sourisseau Peter Drzymala-Balzer Nicola Martinez Vasile Dumitrica Wang Lei Roby Rudolf Jim Brennan Michael Rieser Robert Hayes Mike Libeck Seth Dilles Steve Wakeford Tito Krull Bill Coe Larry Arthur Kevin Kent Tim Frankl James Arnold Ryan Gillespie Cole Bradburn Braden Downey James Donigan John William Middendorf II Chris Lorimer Kristen Anderson Michael Kavanaugh Jason P Hall Jerry Greenleaf G.W. Barrett Jonathan Wachter Matt Lambert Oliver Laker

Also big thanks to D4 Swag financial supporters: Matthew Newton Simon Mentz Iain Clarke Amy Givler Allison Morris Zacharias Jon Rigg Frances Middendorf Geoff Couser Cameron Abraham Bill Hatcher Eliza Kerr Rob Caron Josh Temes

Kirk Bland Klaas Ebel Robert Francis Noonan Stacy Papp Jeni Middendorf Bob van Velzen Tim Preston Lesley Gardner Stuart Teague

Special thanks to our main product testers of the early D4 Prototypes: Marek Raganowicz John Verbeck Pass the Pitons Pete Zabrok Rob Miller Robbie Brown Steve Pearce As well as climbers who provided quality feedback and photos: Eliza Kerr and Calliope Chris Trull Jon Rigg Steve Bosque Cam Burns Kevin DeWeese Dave Alfrey Mike Libeck Twid Turner Matt Lambert Jim Reynolds Jon Griffin Becca Saurus Kevin Kent Micheal Sanderson Patrick Cicero Chris Lorimer Sam England Tito Krull Jerry Greenleaf Jeff Constine The Pines crew in Arapiles Cedar Wright Tomas Huber Andy Kirkpatrick Greg Child Malcolm Matheson Andy Kuylaars

For support and encouragement during the last SLC OR show. Kurt Smith Randy Leavitt Stevie Haston Liberty Mountain Gear Chris Kalous Steve Quinlan Bob Palais

Thanks also to supporters who helped through photography, reviews or interviews: Bill Hatcher (National Geographic) Tom Evans (El Cap Pics) Peter Farquhar (Business Insider) Helen Shield (ABC Radio) Ross Taylor (Vertical Life) Brandon Pullan (Gripped) Chris Kalous (Enormocast)

For help in creative branding and the initial website: Hudson Paine Elliot Kirk Tyler Miller

And many thanks to Werner Braun who supplied the encouragement, refuge and tools that allowed me to create the first functional D4 curved-corner hybrid-diameter compact-folding prototype in his Yosemite shop. Also thanks to Simon Mentz for doing a wall with me to test the design and for his fine video of the adventure. And last but not least, super special thanks to the D4 Production Team: Barry Ward Jason Brooks Kim Morris John Middendorf

What's next?

Barry Ward of Durango Sewing Solutions will be continuing to produce the D4 full-size portaledge design in Durango, Colorado.

The wait list (sign up at BigWallGear.com) is currently at 89 people (as of today) and growing, as the word is out that the D4 is by far the best portaledge ever, but Barry is confident he will be able to fulfil all orders within a reasonable timeframe. John Middendorf will be continuing to research improvements in the design and manufacturing, and also to develop new products--soon he will be offering some specialty portaledge designs from his shop in Tasmania (keep posted of news on the [Facebook page](#) and BigWallGear.com).

Warranty and repairs of Kickstarter Ledges

As described in the Setup Manual included with each Kickstarter ledge, *"This product is supplied as a reward for Kickstarter supporters to foster ongoing and future development of a new suspended tent system. As such, this product has no warranties, expressed or otherwise, and should therefore be considered experimental and extreme care taken if used in any situation where harm may result. Understand and accept the risks—you are responsible for your own actions and decisions."*

The first Kickstarter production ledges, shipped in September 2017, were the aftermath of hundreds of cumulative nights spent in D4 prototype portaledges around the world, beginning in late 2016 with the first D4 prototypes built in Tasmania. Since then, over 100 people have directly involved with the design and feedback process in the past year.

During the Kickstarter production, we made two significant changes: we switched from the lighter 4-point suspension to the traditional 6-point suspension. We also ditched the light and strong 210d Dyneema fabric to a more robust 420d ripstop packcloth. The Dyneema beds have stood up well over multiple walls, but being lighter, require a bit more care--be sure to attend to any incipient wear spots on the beds with nylon adhesive patch tape and/or Shoe Goo (or Aquaseal). Based on user feedback based on actual use, we also beefed up a number of reinforcement points, as well as making the ledge "ambidexterous", meaning either side can be used against the wall. The net weight of the current production D4 double portaledge, including haulsack, flypole, and expedition fly, comes in at 19 pounds (up from 15.5 pounds of the initial prototypes, but still about 10 pounds lighter than the competitor's similar size ledge). And of course it is the compact folded size of the D4 that really sets it apart--it is the most compact full size portaledge ever.

For any big wall adventure, especially those involving a portaledge, we highly recommend taking a repair kit, including (Amazon links below):

- [Repair Tape](#)
- [ShoeGoo](#)
- [Zipper Lube for waterproof zippers](#)
- While you are at it, order a [Speedy Stitcher](#) for any haulbag or strap repairs.

We stand behind our product, and any issues will be attended to reasonably. Repairs will be done for time and materials. Contact Barry directly at gear@sewdurango.com

We also remind users to review the following information carefully:

- [Setup Manual and Tips](#)
- [Setup Video](#)
- [Fly Deployment and Take Down Video](#)
-

Why no photos in this update?

There were just too many! We compiled all the D4 photos from 2017 into one 3 minute movie here: [D4 Movie 2017 Youtube](#)

Thanks, thanks, and thanks again!

Thanks to everyone again for a great adventure. The ability to tinker again with new concepts and create new folding hanging camp systems has been a great reward of this project, and I am very excited about the new climbing tools spawned by this Kickstarter and currently being developed in the D4 shop--thanks to everyone for their support.

As a final note, check out the latest Enormocast, which includes some stories about the development of the [D4 Portaledge](#) (Thanks, Chris!):

<https://enormocast.com/episode-142-john-middendorf-built-it-and-they-will-go/>

UPDATE 16

One year anniversary of the D4 Portaledge

John Deucey Middendorf **Creator**

April 11, 2018

Kickstarter reminder to post an update! Lots has happened this year, primarily the production at several facilities of the new curved corner, hybrid diameter, eight-piece frame design which is the beginning of the curved corner revolution. One small step for humans, one big step for big wall climbers and anyone who needs a fast assembling, compact packing, single point platform for surviving even the fiercest storms on the vertical.

Here is a recent press release:

NEW CONCEPT IN FOLDING PLATFORMS FOR ROCK CLIMBING

Building on the recent Kickstarter success of the full-size D4 Portaledge, widely regarded as one of the all-time greatest innovations in big wall gear, Big Wall Gear, LLC announces the new multi-purpose D4 Trapezium, a whole new paradigm in foldable platform technology built for climbers.

The D4 Trapezium is light and fits into a daypack, and has already opened new vistas for adventure, uses include ultra-light big wall solo climbing storm shelter, BASE jumping platform, stealth tree-activist perch, and instant tree-cubbie for kids on family camping trips.

The D4 Trapezium is the first of its kind, the “1.5 ledge” inspired from input by climbers and BASE jumpers such as Rob Miller, Regan Raganowicz, Ivo Ninov, Joshua G., Robbie Brown, and Andy Kirkpatrick. For more information, visit <http://www.bigwallgear.com/d4-trapezium.html>

D4’s new patent-pending 8-piece, hybrid-diameter, curved-corner, Bullet Frame™ is the most compact folding, largest deploying, lightest and strongest folding platform ever designed, and virtually self-assembles thanks to the exclusive D4 Bullet Joiners™.

The D4 Trapezium joins the line of D4 branded equipment, including the D4 full-size Portaledge manufactured by Durango Sewing Solutions, and the D4 MiniMe, available soon from Tufa Climbing. D4 is also proud to announce membership in the new HandBuilt Alliance, a consortium of small businesses who hand-build their products, share ideas, and co-promote excellently crafted equipment. <http://handbuiltalliance.com>

In closing this chapter of innovation, we thank again the Kickstarter supporters who helped get this project started. The inspiration to evolve the portaledge design has come from many, it has been a gift to help create useful tools for wild adventures.

We are looking for more design partners to share ideas and create handbuilt product. There are lots of ideas in the wild, some that require some hard work and perhaps funding to get off the ground, but the community always rallies for the worthwhile.

Hope to talk to you all soon, and to hear about your experiences with your D4 product.

Cheers

John Middendorf
Hobart, Tasmania



[Tarkine with the Trapezium](#)

MAILCHIMP UPDATES--MORE D4 Designs

2018-2021

- 05/09/2021 - [May 2021 D4 BigWallGear Update--winding down](#)
- 02/26/2021 - [Delta2p Availability from D4 BigWallGear](#)
- 02/02/2021 - [Delta2p's now available at BigWallGear.com](#)
- 10/15/2020 - [D4 Design Portaledges--Update from BigWallGear](#)
- 08/27/2020 - [D4 Delta2p Portaledge Availability](#)
- 12/18/2019 - [New D4 portaledge design available to big wall product testers](#)
- 09/20/2019 - [D4 Octapod Update-please read if you own a D4 Octapod](#)
- 09/20/2019 - [D4 Portaledge Update from BigWallGear](#)
- 09/19/2019 - [BigWallGear D4 Portaledge annual report 2019](#)
- 12/15/2018 - [D4 Portaledge Update from BigWallGear](#)
- 10/17/2018 - [D4 Portaledge Update from BigWallGear](#)
- 10/17/2018 - [D4 Trapeziums available](#)
- 09/26/2018 - [D4 Portaledge Update from BigWallGear](#)
- 05/01/2018 - [D4 Trapezium Update](#)
- 03/26/2018 - [D4 Press Release March 27, 2018](#)