



Being notoriously difficult on it, I find myself a prime candidate to review caving gear, as my steady use apparently constitutes a “torture test.” Beginning with this issue, I will begin assessing cave-specific equipment as it performs in real-world use by yours truly, and don’t intend to sugar-coat the results.

I’ll only review gear that I’ve used for a suitable amount of time, unless I’ve managed to destroy it in an inordinately brief fashion. All gear purchased at full retail prices, although if there are vendors crazy enough to offer up their wares for imminent destruction: I dare you.

Please be aware that there is likely a “conversion factor” at play here, and many will experience a longer lifespan, or a more favorable result, from identical products than I do.

GERBER INFINITY ULTRA

In November 2007, I found myself reading instruments on a survey crew with Walter Meurer. At the time, I didn’t own my own Suunto, and had forgotten my target light, so I borrowed the required equipment from Walt. This loan included a very small, sturdily built target light with a red bulb, by which Walter swore and claimed to have owned for at least ten years. I noted the letters “CMG” on the scarred, mud-caked barrel and decided I would buy one for myself.

Upon arriving home after a good weekend of caving, I sought more information and found that CMG had

been acquired by Gerber, the Oregon-based knife company, and this light was now being sold as the Gerber Infinity Ultra (formerly, of course, the CMG Infinity Ultra). These lights are available with white or red LEDs, the red of course being an excellent choice for cavers who need a station light but don’t want to use a white light and risk confusing the instrument reader.

I was looking for a light that was small, cheap, simple, as close to indestructible as possible, and wouldn’t chew through batteries. I’d been using an LED Mag Lite as a target light, which was quite large and heavy for the intended purpose and happily devoured my batteries. I bought the Infinity Ultra for \$16 from amazon.com.

Gerber markets the Infinity Ultra as waterproof to 10 feet, and they epoxy-coat the internal circuitry for shock resistance. The housing is anodized aluminum, and the emitter is recessed in a deep bezel, although the lack of a true “lens” to shield the bulb worried me a bit at first. It came with a pocket clip that struck me as essentially useless, and did not include a lanyard despite having a hole for one; that part was remedied easily enough. The light takes a single AA battery and claims “upward of 100 hours” of runtime, which sounds slightly ambiguous but is high enough that a few hours in either direction are of no consequence. There is a single mode of operation, actuated by twisting the tailcap, and if you arrange the tailcap appropriately it can be pressed with a thumb for use as a momentary switch.

I began using the Infinity as a target light immediately, and in the year or so since it has come on every survey trip. It feels solid and bulletproof in the hand, and is compact enough to be worn around the neck. In fact, I’ve begun wearing it around my neck as an emergency backup, should anything happen to my Stenlight while I find myself separated from my pack (or helmet) in a tight crawl or ear dip.

It’s been cracked on rocks, dropped into pools of water, and caked with mud. I’m still using the alkaline battery I put in there when I bought it; while there’s no real way to keep track, I don’t dispute Gerber’s runtime claim. The only maintenance I’ve ever performed on it is to take the tailcap off periodically to clean the grit out of the threads and make sure the O-ring is free of debris. Even after repeated dunking in wet caves, the battery compartment doesn’t show any signs of ingress, a testament to the quality of manufacture in an

era when quite a few devices are on the market as “waterproof” but prove themselves to be unworthy of this designation once brought underground.

Frankly, after extended testing, I can't find anything about this target light I don't like. It probably wouldn't be much use as a backup in non-emergency situations, as a single red LED is even less enjoyable to cave with than a single white LED. The red light is bright and excellent for use in-cave, however, and Walter attests to the visibility of a red LED in daylight when overland survey is required. The unit is compact, lightweight and easy on batteries, qualities desirable in a target light, and appears to be overbuilt and clearly rugged enough for caving use. In addition, it costs half as much as a 2-cell LED Maglite (Gerber does sell a military-spec version as the Infinity Ultra-M series, in case you're just dying to spend \$32 instead of \$16). All in all, a robust light and I'd be hard-pressed to find a flaw.

Verdict: strongly recommended it for cavers seeking a dedicated target light to survive the next decade.

HOWITZER KNEE PADS

My first pair of caving kneepads were the long-style Bomber Gear pads everybody raved about. This seemed like a safe bet, with several LRG members owning them and recommending them to me.

They lasted two trips.

Well, that's not fair – they lasted seven trips, shredded and held together by all manner of duct tape jobs, before they could no longer be used at all. But it was the

second trip, a short survey near the entrance of Chinn Springs Cave, when the rips first appeared, and when the time came to purchase a new pair of kneepads, I knew for sure that I didn't want to spend very much money, and I definitely wasn't going to give the Bomber pads another trial run ¹.

At the beginning of 2008, when I found myself back in the market for knee protection, there were, by my count, five types of caving kneepads:

- Crawladdies, via Inner Mountain Outfitters, \$60
- Expedition Essentials, via their own website, \$60
- Dirty Dave's kneepads, via Karst Sports, \$44-\$50
- GGG kneepads, multiple vendors, \$33-\$40
- Howitzers, via Howie's Harnesses, \$25

Disappointingly enough, all three options appeared to be made from varying grades of uncoated nylon fabric, which may be wonderful in TAG or Kentucky but sure doesn't seem to last long in the chert-laden Ozarks. Other, higher-quality options are available from custom makers of caving kneepads, but were well beyond my price range. \$50 or above seemed excessive for a product I'd come to think of as relatively disposable, and it seems everyone I've met with the GGG pads complains that they fall down too easily. As such, the \$25 Howitzers sounded like a pretty good deal, and I made my decision.

The Howitzers pads have a striking similarity to the short-style Bombers, right down to their most notable

Left: A Gerber Infinity Ultra after dozens of cave trips, ready for hundreds more. I haven't had any luck breaking it. Right: The fabric on a pair of Howitzers begins to give out. A valiant effort, but cloth will always lose a fight with chert.



weak point: a pair of horizontal seams across the wear area. It would appear that Howie sought to reproduce this product when the original ceased to be available. However, the quality of construction in comparison to my Bomber pads was a noticeable improvement. The ballistic material Howie uses is very rugged, especially when compared to what some other retailers pass off as “ballistic nylon.” The padding is soft and comfortable, and it’s notable that the lower of the two around-the-knee straps is not stretchy, which seems to prevent the kneepads from sliding or being pulled down. Strap closures are the button type popular in cheap hardware-store kneepads, with a nylon hook and a steel button.

On the recommendation of Dave Taylor, I wore them once as-is, then brushed a 50/50 mixture of Seamgrip and thinner onto the front of the pads, with hope of increasing their longevity.

My experience with the pads in-cave has been rather positive. They absolutely will not slip down my legs, a primary concern with most caving pads, and the straps are relatively comfortable. Once they are muddied up a bit, it’s difficult to make in-cave adjustments to the strap length, but the straps also don’t slip around during use, making this only a matter of proper adjustment beforehand. The closures have weathered well and only once, after an extraordinarily gloppy Cushman trip, did they give me any trouble; even then, the only trouble I had was trying to get the pads off post-trip!

They do have a bit of a tendency to move laterally around the knee, but nothing too bad, and will bunch up slightly in belly crawls if the top of the pad should catch on an obstacle. Neither is a pronounced issue, and in each case this is an acceptable side effect of their resistance to slipping downward. Comfort is good, comparable to the aforementioned Bomber pads. The steel buttons rusted quickly, without causing any observable issues. On one pad, the orientation of the padding material within the “sleeve” caused a hole to wear in the soft backing material, but I was able to re-orient things well enough to prevent additional damage.

I keep meticulous records of my cave trips, which surely betrays me as being a nerd, but it’s nice to be able to say “I’ve been caving 47 times this year” or “this is my tenth trip to this cave.” A side benefit of keeping a good record, useful here, is that I’m able to pin down rather accurately how many times I have used a par-

ticular product before wearing it out.

At the time of this writing, I’ve only owned the Howitzer pads for 8 months, but in those 8 months I’ve taken them caving 26 times, logging a total of 195 hours underground in the process. As with all gear, your mileage may vary, but as I near the 200-hour mark, the seams have finally begun to separate on the front of the pads (see photo), exposing the foam underneath, and if my Bomber experience was instructive then I can expect another 4-6 trips from them in this state before a replacement will become necessary.

This test period did not include any particularly infamous crawls², although there was a pretty nasty 2000’ gypsum crawl out to Rope Pit in Unknown Cave that I managed to do four times (in, then out, then in again, then out again... don’t ask).

I’m hard on gear, I’ll admit it. I don’t know why, or how, but my equipment demonstrably suffers more abuse than identical equipment used by the cavers around me. Maybe I’m just not very graceful. In this light, I cannot say I’m at all disappointed by receiving 200+ hours from a pair of kneepads instead of 20+ hours; I would have to destroy two or three pairs of these to equal the expense of other options made from the same materials.

However, I cannot decide whether I’d like to purchase a second pair of these, or if I should try an alternative product. Cloth pads just seem to have a finite lifespan, and there’s not a whole lot I can do to alter the physics of chert versus nylon. One would be hard-pressed to find a less expensive option, with the short GGG pads being the closest competitor, and the ballistic material in the Howitzers is almost certainly more durable than the 1000-denier nylon used in that product. Yet I do not care to purchase 3 sets of kneepads every 2 years, the pace I now appear to have set, and cannot help but feel that a more Jeff-proof option may exist.

Verdict: a good value, especially for medium-duty use.

¹ – *Not to mention that they’re no longer available*

² – *Read: no trips to I Hate This Cave or Chilly Bowl*