

# FOUR WAYS YOUR COMPASS CAN JEOPARDIZE YOUR MISSION

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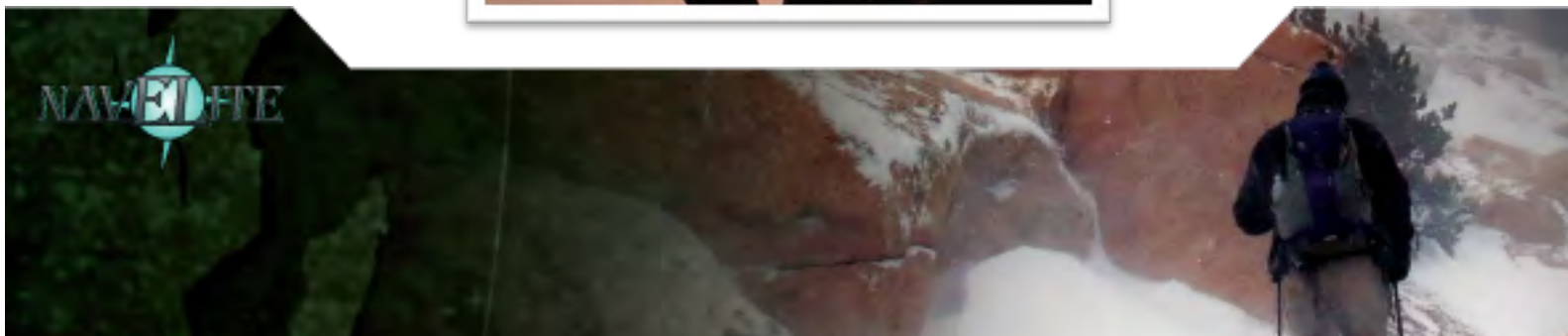


*The kid was still there, but at least he hadn't moved. Cortez watched him through his night vision goggles, silently willing the boy to turn and go home. So far it wasn't working and the kid just sat there. The sun would soon be up and it was too bright for night vision, anyway, so Cortez put away the goggles and turned away to check his team. Singlaub was at the top of the ridge, invisible, as always, but watching over the other side of the hill at the house they'd spotted earlier. Even from down where he was, Cortez could see cooking smoke rising from the house that had apparently awakened.*

*The team should have been four miles ahead by now, safely through the valley before sunrise. Cortez wasn't worried about being late to the safe house. His contact would be patient. But if they were spotted, the entire mission would be jeopardized—and, frankly, they didn't stand a chance of getting out.*

*Earlier that night one GPS was lost and the other had failed from depleted batteries. The team spent just over an hour looking for the lost GPS without success and decided to press on. Amira is a technical wiz, and had done everything from warm the batteries to practically rewiring the thing as they moved. But the ridgelines and the weather had won, leaving the remaining GPS unit as dead weight. The P.O.S. compass Cortez carried was also good for nothing. So, despite a sharp sense of direction and occasional landmarks, they had ended up in a dead-end valley and had to backtrack almost two hours around a village. Now, at dawn, they were way too exposed. Their last hope was to scurry through this gulley before the house woke up, but they hadn't expected a 10-year-old out for an early morning walk.*

*Cortez rechecked the boy, then mouthed a curse; the boy had disappeared—but to where? He looked left to where Deacon was laid out flat. Cortez signaled his question: The response was a frustrated hand gesture: "Not sure. Down. Behind. Not sure." More mouthed cursing. The situation was screwed up. Bad.*



# WAY #1 YOUR COMPASS CAN JEOPARDIZE YOUR MISSION: YOUR COMPASS IS UNRELIABLE.

You are called into unknown territory for many reasons. Sometimes it's for fun. Often it's for duty.

MILITARY, LAW ENFORCEMENT, AND GOVERNMENT	RECREATION AND TRAINING
PATROLLING	HIKING
LAND NAVIGATION	BACKPACKING
CLOSE AIR SUPPORT	TRAIL BIKING
ADJACENT UNIT COORDINATION	ADVENTURE RACING
PARACHUTING HALO/HAHO	SKYDIVING
SATCOM ANTENNA ORIENTATION	CAMPING
SEARCH AND RESCUE	MOUNTAIN CLIMBING
FEMA	HUNTING
SKI PATROL	SCOUTING
FOREST FIREFIGHTING	PREPPING / BUGGING OUT
	ORIENTEERING AND GEOCACHING

Whatever you're doing, wherever you're going, success depends on directional accuracy. Losing or getting an inaccurate azimuth can result in increased cost, delay, or even injury of you, your fellow operators, those you are serving—or, perhaps worse, those who risk their lives to come rescue you after you lose your way.

You owe it to everyone to maintain your navigational capabilities in all circumstances. For that, a magnetic compass is the only proven, durable solution. *Never* get stuck without a compass—and make sure it's one you can rely on.

Even if you have a compass, you are not guaranteed safety. The wrong compass for the wrong application can quite literally shut down your mission; here are just four ways this can happen:




1. Your compass fails to give you an accurate azimuth.
2. Your compass is not durable and fails to operate when you need it most.
3. Using a flashlight to see your compass creates too much light and requires an additional piece of kit (the flashlight).
4. Storing a compass in your pocket or pack causes you to get it out and put it back often.

The story above, about a SpecOps team in harm's way, was just one of countless situations where GPS devices fail. It could be because batteries die—especially in adverse or extreme weather. GPS failure can occur because terrain or trees are blocking the signals from the satellites. GPS failure can even occur because information was incorrectly entered—by manufacturer or user—into the GPS. The point is that relying on a high-tech device such as a GPS is dangerous. Sure, you should use a GPS as much as you want to, but always (always!) carry a reliable compass.

As one Search-And-Rescue expert put it, “We rescue people all the time who fail to bother with a compass and think their GPS will not fail them.... They are fallible in ways that no map can be, and if we followed them blindly we would on occasion lose members of our SAR team.... You need a compass. There is not any substitute. In SAR we are required to have an orienteering compass with us at all times.... We wouldn't spend all the hours teaching Boy Scouts and classes...otherwise.”<sup>1</sup>

Not all compasses are created equal. And the one you're given might not be the one you need. Are you willing to bet your mission on it?

Your compass can shut down your mission by failing to give you a correct azimuth.



NavELite compasses are affordable and easy to carry, so they are more likely to be used. Because they are wrist-worn, they are always there when you need them.

They are built from shockproof, high-grade Lexan plastic for maximum durability.

They are not dependent on satellites as GPS devices are and will work within forests, canyons, caves, and buildings.

Waterproof models can be submerged when crossing streams and in all weather.

A depleted battery does not render NavELite compasses unusable. They continue to function as designed without the backlighting.

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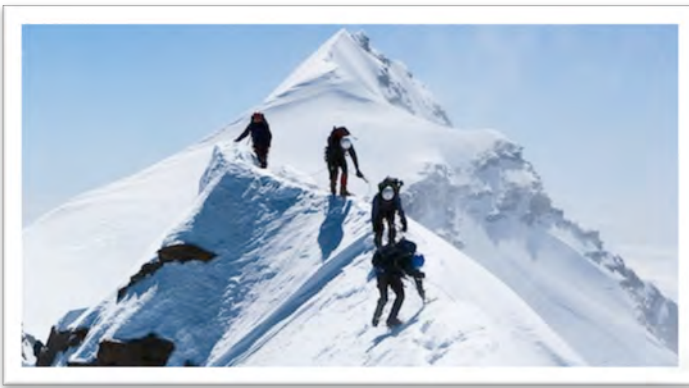


<sup>1</sup> <http://sectionhiker.com/when-was-the-last-time-you-had-to-use-a-compass/>



## WAY #2 YOUR COMPASS CAN JEOPARDIZE YOUR MISSION: YOUR COMPASS IS NOT DURABLE AND FAILS TO OPERATE WHEN YOU NEED IT MOST.

*Cortez suspected the reason they'd become so lost. That part of the world is one big rock with some sand sprinkled on top as decoration. Amira carried their only remaining compass in his chest rig. It took probably two hits as the pouch dragged and scraped on the rocks before the compass started sending them astray. It wasn't like the thing got smashed: Just scratches and an invisible bend in the needle. But, running behind schedule and desperate to arrive before daybreak, they weren't taking enough time to double-check the readings. It wasn't a stupid mistake because it was unavoidable given the equipment they had. But the error may end up costing them their lives if things didn't turn for the better, fast.*



Where will your next mission send you? You might not always be climbing rocks. You might not always be chewing sand. Maybe you'll HALO into an urban jungle. Or swim the last 50 yards to the beach. You've been through worse. You had better hope your compass is as tough as you are.

There are many ways compasses can be damaged. And with the wrong compass it doesn't take much to negatively impact functionality. If a compass is dropped, the pivot pin or needle can become misaligned. If a compass is scraped, the bezel can become cloudy and unreadable. Any water or even condensation inside a compass plays havoc with the needle's ability to spin freely.

A 5-degree error caused by a sticking needle is significant. For every mile you move forward, you'll be 500 feet off course. In a benign, high-visibility environment, that might not matter. But you're in the dark, headed into unknown and unseen terrain, with potential hazards, and can only hope that 500 foot difference isn't straight up or straight down.





NavELite compasses are designed and assembled in the US with the most rigorous quality control procedures.

The Lexan compass capsule is extremely durable and scratch-resistant.

The bezel is ratcheted so a desired direction can be set and kept, and serrations make it easy to rotate the bezel, even when wearing gloves.

NavELite compasses are worn strapped to a wrist, keeping the compass readily available yet out of harm's way.

H<sub>2</sub>O WaterBlock™ protection is available, allowing the compass to be submerged to 1 meter for 30 minutes without damage.

## WAY #3 YOUR COMPASS CAN JEOPARDIZE YOUR MISSION: USING A FLASHLIGHT TO SEE YOUR COMPASS CREATES TOO MUCH LIGHT.

*Cortez knew Amira was angry about getting lost and was blaming himself, despite his diligent efforts to revive the GPS and the fact that Amira was an excellent navigator. If anybody was to blame, it was Cortez—both as team leader and because he had poorly navigated due to using a flashlight to light the compass. Their route was way too exposed to be creating flashes of light for anyone to see. The team would have been spotted countless times throughout the night. At one point Cortez had even flashed the compass without warning and the resulting night vision goggle bloom blinded everyone behind him. So Cortez started limiting his checking of the compass to only when deep in narrow gullies and holes, making it virtually impossible to discern useful landmarks. The lack of frequent checks was enough to lead them right into that dead-end valley. Cortez was now desperate to find a way not to have the mission be a dead-end, too.*

NAV-ELITE





If you could travel in the daylight you would. Everybody would. It's easier, it's safer, and it's faster. But you're in the dark for good reason. Maybe you didn't choose the time, but are searching for a lost hiker who can't survive the night. Maybe you did choose the time because at night you're less likely to draw unwanted attention—or enemy fire. Maybe you're moving at night because, although you know the risks, you're the one in trouble and wouldn't survive the night sitting still. Whatever the reason, it's dark and you deal with it.

Using a flashlight at night to see your compass creates too much light. The bright light blinds you—especially if your team is using night vision goggles—and the bright light alerts everyone in the area around you that you're there. It's a double whammy: You can't see and they can see you. So not only will your movement forward be compromised, but your position will be compromised, too!

A triple threat is that the spill of the flashlight might illuminate the rest of your patrol. So observers will not only know where you are, but who you are with and how you are equipped.


Some operators avoid the flashlight and use a small chemical light stick, instead. A light stick can be tied to your wrist, making it easy to use to illuminate your compass. Unfortunately, the swinging light stick is a non-stop beacon for several hours, visible from great distances.

A better solution—more efficient and safer—is a backlit compass. The backlighting is usually on-demand, with either an intermittent switch or a toggled on/off switch. The backlighting isn't bright enough to be seen from very far. Even if you are concerned that it is, worst case you compass may appear as a brief flicker to anyone watching, but you won't be lit up long enough for them to confirm your position.

Backlighting is also ideally night-vision-goggle-friendly, so it won't force your naked eyes to readjust to the dark and won't bloom or whiteout others who are wearing goggles.

Flashlights are never a good solution. Even if you're just a group of Boy Scouts on a fun night hike, not in hostile territory, a bright light would interrupt your group's ability to see in the dark. So when the flashlight is turned off again you either have to wait for your eyes to readjust or take dangerous steps you can't see. Either way that risks the mission—and, perhaps, your life.





NavELite compasses are backlit with just enough light to easily read and adjust the compass. They come in a choice of intermittent press-and-hold-on or toggled press-on/press-off backlighting. Because of the low light intensity, there is reduced risk of being observed.

NavELite backlighting is night vision goggle friendly. The compass will not bloom or whiteout goggles.

The long-lasting batteries can be changed when needed.

And even if the backlighting batteries failed during a mission, the needle is painted in Luminova for easy visibility.

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## **WAY #4 YOUR COMPASS CAN JEOPARDIZE YOUR MISSION: STORING A COMPASS IN YOUR POCKET OR PACK CAUSES YOU TO GET IT OUT AND PUT IT BACK OFTEN.**

Most compasses are loose and hand-held. They slip easily into and out of a pocket, which means they slip easily into and out of your hands.

You can store a compass on the front of your vest or in a readily accessible backpack pocket. But if you're navigating throughout the day then that access becomes more and more of a hassle. You'll refer to the compass less often, which means your route won't be as accurate.

At the same time, you risk dropping or losing the compass as you go back and forth from pocket to hand throughout the trip. You might set the compass down on a rock while checking the map and forget to pick it back up as you leave. Everybody has lost something at least once on a trek. Don't let it be something as vital to survival as your compass.

If you're operating in a threat environment, your hands might be busy with other tools—such as a weapon system or radio. A loose, hand-held compass forces you to choose what tool to put down. If you can avoid that choice, you should.






An option for some compasses is a neck lanyard. That solves some of the problems but creates another, perhaps worse problem—a dangling object around your neck. Your path over terrain and through ground cover and scrambling over obstacles might make a dangling lanyard extremely dangerous. Best case is that it annoys you and causes you to move the compass to a less accessible storage place.

Another option is a zipper pull. The pull is short enough not to be dangerous, but, unfortunately, the compass is almost always unreliable. Zipper pulls are usually relegated to cheaply made compass/thermometer/whistle combinations designed for kids just learning to day-hike. A zipper pull compass is not a professional tool you want to bet your life on.

Ideally the compass would be wrist-mounted. This is not a wristwatch compass—the compass sometimes built into watches—but a dedicated compass in a wrist strap. The strap must be long enough to fit over your gloves or sleeves, and comfortable enough to wear on a long mission.

An important benefit of a wrist-mounted compass is that it is quick and intuitive to level, even as you move and take various positions yourself, whether standing, seated, or prone. You just hold up your arm and twist your wrist to level the compass. It takes no distracting thought and you will be comfortable doing it again and again as you move. If your wristwatch (or altimeter, for airborne operators) is also on your wrist, you can easily check and relate both tools in one glance.



The core staff at NavELite has a combined experience of 40+ years in Special Forces and high risk operations. That experience is incorporated into the compasses.

NavELite compasses are mounted on a specially designed wrist strap.

The wrist strap is long enough to fit over gloves or sleeves, and perforated so it can be adjusted by the operator to preferred length.

The wrist strap is ergonomically designed to be comfortable through a long mission.

A wrist-mounted NavELite compass is small enough that it will not impede other tools or weapon systems.



# WHEN SURVIVAL COUNTS

*A sudden scream caught everyone's attention. Even the previously invisible Singlaub popped up his head—something Cortez hoped he would live to have the opportunity to give Singlaub Hell about later. A glance right to Amira: A shrug in return. He looked left to where Deacon was slowly panning the scene with his scope. Deacon's hand waved front and right. Cortez followed and could now see, through his own scope, the boy standing below, grasping the neck hair of a small goat—apparently the purpose of the boy's early morning search. The boy, doing his best to walk while pulling the goat, moved quickly back around the end of the hill, apparently eager to get back into the warm house for breakfast. After the boy was gone, Cortez watched for Singlaub to once again make himself visible with a gestured, "All safe. Clear down. Clear ahead." It wasn't time to relax yet, as dawn made the remaining four miles extremely dangerous. But at least they could move. Cortez knew that nobody on that team would ever again bet their lives on a GPS—or an unreliable compass.*

Legendary Alpine climber Hermann Buhl once said, "Mountains have a way of dealing with overconfidence."<sup>2</sup> Buhl knew there were many ways a compass can jeopardize your mission, so he always carried the best one he could get.

You owe it to yourself and to everyone to maintain your navigational capabilities in all circumstances. *Never* get stuck without a compass you can trust.

## ABOUT NAVELITE:

At NavELite we understand it is vital to maintain your navigational capabilities in all circumstances. With 40+ years of Special Operations experience, the core team of NavELite knows what it takes to survive.

The NavELite product line consists of reliable, user friendly, durable devices that were created based off of the specific situations the military and adventurers face daily. Unlike some of our competitors, all of the NavELite products are designed and assembled in the USA. The NavELite founders ensure quality by closely monitoring the production process while enforcing the most rigorous quality control procedures.



<sup>2</sup> <http://heroes.climbfind.com/post/12318866822/mountains-have-a-way-of-dealing-with>

