UTDOORS The old fashioned compass

For Christmas last year, my wife got a new watch. It is called a "smart watch" and is made by Garmin. This watch has GPS, pulse monitoring, breath-



Tips from the Posse By Mark Rackay

ing rates chart, counts steps, counts calories burned, monitors your sleep, tells you when you have not moved in awhile and vibrates when you receive text messages or get a phone call.

The way I see it, this watch actually goes out each morning and exercises, then heads off to the woods for a hike. All the while, you stay home and drink coffee and eat cake. I guess, the "smart watch" returns home at the end of the day and reports back on the hike, game it saw and how much exercise it had.

The one thing the smarty thing did not have was a compass. I pointed this out to my wife and her answer was so common amongst younger, techie type outdoor people. "It has a GPS."

I come from a time, so long ago, before GPS and electronic navigation. My Grandfather gave me a compass and a 15-minute class on how to use it. My little compass always got me home, never ran out of batteries and was never wrong.

The first compasses were made of lodestone, a naturally magnetized iron ore, in China around 200 BC. Later an iron needle was introduced, and magnetized with lodestone. The dry compass came into use around 1300, in Medieval Europe. The modern compass, which has a liquid filled crystal to minimize the bounce of the needle, has been in use since the early 20th century.

Everyone should use a handheld GPS when outdoors. The newer ones have topo map programs built in, and are very user friendly. Always carry extra batteries because without power, the GPS is useless. Point is, never rely strictly on that GPS to get you home.

What if there is a real crisis, and the Russians take down the entire power and communications infrastructure? More likely, what if your GPS breaks or gets waterlogged from a quick trip into the stream, or you run out of batteries? If Murphy, of Murphy's Law fame is along on the trip, these are likely to happen.

First, it is important to understand the basic parts of a compass. The base plate is the support for the compass and is clear so you can see through it when using it on a map for orientation. On the base plate, you will find a direction-of-travel arrow (DOT), pointing to one edge of the base plate.

The liquid filled compass housing contains the magnetized needle. On the bottom is an orienting arrow. The Outer edge of the compass is the dial, which displays the directions and degrees.

A quick look at any compass will show just how easy it is to identify these features. The basic design is similar for all compasses, and has not changed much in centuries.

If you want to pinpoint your location using a map it is a relatively simple process.

First: Hold your compass at eye level with the DOT arrow pointed at one of the landmarks you can find on the map, such as a mountain peak. Keep the compass still as you turn the dial until the north of the magnetic arrow lines up with the orienting arrow.

Second: Lay your map flat and place the compass on it so that one of the long edges of the base plate intercepts the landmark. Turn the compass on the map until the arrow lines up parallel to one of the vertical lines of longitude, and draw a line down one side of the base plate.

Third: Repeat this process for a second landmark. Where the two lines intersect is the position on the map where you are standing.

It sounds more complicated than it really is. Try it sometime when you are out in the woods and see just how easy it is. The compass and map method is a great backup to your GPS.

As I have often said, the secret to not getting lost is to stay found. It does no good whatsoever to bring out the compass once you have lost your way. Orient yourself before and all throughout your backcountry trip. This is the perfect chore for your compass whether you use a GPS or not.

When you strike out on your trip with the compass in hand, try and keep the needle pointed in the direction you want to travel.



This old fashioned compass has lived on my backpack for more years than I care to remember. It has never failed me and I use it regularly for navigation. (Special to the Montrose Press/Mark Rackay)

Having the compass in hand is the best way to navigate through dense woods or a fog, when your visibility is very limited.

When limited visibility is not a problem, you can use what is called the intermediate objective method of travel. Holding the compass up to your eye does this and sighting down the DOT arrow to a prominent landmark somewhere in a middle distance along the route you intend to take.

A large rock, big tree, building or a mountain peak will all work. Keeping the intermediate object in your sight as you walk will keep you from straying off course. Feel free to look around and enjoy the scenery or stray off course a little bit to explore something, as long as you don't lose sight of vour marker.

This method eliminates the worry about whether or not you are walking in a straight line. Once you reach the marker, repeat the process to select the next marker on your intended course. Keep this up until you reach the final destination.

A straight line is the shortest distance between two points, over a level surface. All of us in Western Colorado know that straight and level are imaginary here in the mountains. Even on relatively flat ground, you will be dealing with obstacles that will slow your progress and drain your energy.

A longitudinal terrain feature that more or less follows your intended direction of travel is called a handrail. Anytime nature offers you a handrail, use it to your

advantage; a handrail could be a road, stream, fence line, ditch or ravine.

Using a handrail usually increases your travel distance, but will make for much easier going and keep you from having to keep your eyes constantly glued to the compass. I use this method when I need to work my way around a bunch of downed timber or a swampy area, rather than having to navigate my way through the tough terrain.

I have a small compass attached to one of the straps on my pack. Before I take off into the wilds, I glance at it and do a quick orientation as to where everything is around me. I don't necessarily spend the entire day navigating with it, but check it often so I know a general direction of where I began.

It is doubtful you will ever see me with a "smart watch." My daily watch has hands and a date. It does not tell me when to sleep, eat, and walk around or anything else. I will continue to figure those things out for myself.

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complete loss of the toenail itself four to five months later. This injury can be prevented by effectively lengthening the big toe, either by purchasing a set of silicone toe caps, or taping a bit of dense foam to the end of that toe



Outdoors By John T. Unger

Would you prefer to run up a snowfield, or down a rocky mining road? Maybe neither.

During the 42nd annual Kendall Mountain Run this July, hundreds of participants did both.

Starting in Silverton, with the turnaround point being the 13,066 feet elevation summit of Kendall Mountain, this 12 mile round-trip course boasted half a mile of snow each way. That meant both ascending over snowfields, and descending another half of a mile on snow, often at a fast pace.

These were quite unusual conditions for this annual race, which has been run annually for more years than most of its participants have been living. From teenagers to runners in their seventies, during this race most were able to smile broadly when any cameras came out.

As for running several miles downhill on rocky, wet mining roads at race pace, how does a person keep that smile from turning into a grimace of pain from a bad ankle sprain, the heel pain of strained plantar fascia, or worse?

For one thing, everyone should hope for a good, soaking rain.

That is, everyone should hope for a good, soaking rain the day before the



Montrose native Kendall Cox was running up to the summit of Kendall Mountain and dodging an age group winner who was descending the same snowfield in the race on July 13th. (Special to the Montrose Daily Press/John Unger)

event. It sounds counterproductive, I know, but the moisture on a dirt road full of rocks actually binds the soil together rather well, resulting in less slippage.

As for the larger, flatter rocks themselves, it is best to try to not step directly on them when wet. Details, details, but important ones.

The eyes have it

Many joggers, walkers, and runners nowadays are wisely and intentionally avoiding asphalt (and especially cement). This necessitates readying oneself for the challenges of trails studded with tree roots, gravel, and rocks the size of Fido's head.

Small gravel can act much like ball bearings beneath a shoe if the trail or mining road has much slope. Experienced eyes almost unconsciously evaluate the size and depth of gravel and small stones. This can help us to develop a sense of how long a foot needs to remain in contact with the ground in order to transfer muscular effort into forward thrust.

Other simple measures can reduce or nearly eliminate the chance that we will lose our footing.

Avoid sudden changes of direction, even a change as little as twenty degrees or less from the direction of travel. Inertia carries the runner or hiker forward. On a dirt road or trail, any attempt to make a cut around a dip in the road or around another runner may lead to a side slip on these gravel ball-bearings.

Running at faster speeds, of course, will magnify both the pleasure of locomotion and the consequences of a misjudgment in foot placement and direction. Such an error can produce a nasty case of abrasions which the road cyclists have named "road rash".

Know thyself

This is a fragment of the quote from the Greek philosopher Socrates, a decorated war veteran who was known to routinely walk barefoot year-round, even in ice and snow. For our purposes of staying upright and avoiding

downhill on snow and rocks, knowing thyself and thy course is a practical necessity.

Both the Kendall Mountain Run and Imogene Pass Run from Ouray to Telluride contain a downhill component involving a six mile descent of 4,000 to 5,000 vertical feet. Many local hikers from our area routinely take on such descents during their hobby hikes on the peaks in these San Juan Mountains and other Colorado ranges.

Knowing one's fitness level and one's ability to tolerate timberline's decreased air pressure and it's less available oxygen is a very important prerequisite. Acute Mountain Sickness is a distinct clinical diagnosis and a miserable condition that can

partially be avoided by this foreknowledge of fitness.

The appeal of a six mile downhill run may have the drawback of the temptation to allow gravity to do most of the work. Injury here may be avoided by ignoring the urge to over-stride on the downhills. Such control may spare not only the ankles and the three arches that make up each human foot, but also the knees, kneecaps, and hips.

Is your second toe longer than your big toe? This common variation, termed Morton's foot, can force the longer toe into the shoe's toebox thousands of times on a downhill run. A bruised toenail bed results.

Several days of pain, swelling, and limping may then be followed by

Our beautiful region's trails and roads may be calling your name, whether for a race or just for fun. Answer that call, stay fit, and have fun doing it.

John T. Unger is a Diplomate of the American Chiropractic Board of Sports Physicians, with over twenty-five years of practice in Montrose. He has successfully treated hundreds of such overuse injuries, several of which have been on himself. Ideas for future columns are welcomed at sportsdocunger.com.

