

## What Do You Use the TRIUMPH-LS For?

In some ways, I would use the LS for any of the items you list, but my specific work is boundary and topographic. About the only thing I won't use the LS for is precise vertical (hard surface topo for example) that requires better than a centimeter, particularly if I have to collect a lot of points with that accuracy requirement. This is pretty uncommon for my needs though.

I would use it for many types of construction layout. I don't do a lot of construction layout work though. It's the way to layout utility corridors.

#### Shawn Billings, PLS Kilgore





The more fitting question for me would be what don't you use the LS for.

I even used it to set the locations for the post holes on my construction project and then drilled them. I did not have to shave out any of the holes. The posts went in perfectly.

The LS is a workhorse when it comes to open sky topo. I finished the field in just a few hours and never cut anything. I was able to crawl around and get to where I needed then let the LS work.

Adam Plumley, PLS

### TRIUMPH-LS vs. R-10 Stephen K. Drake, PLS, CFedS

JAVAD TRIUMPH-LS rover, TRIUMPH-2 base, with spread spectrum radio, and a set of pods I have hiked up mountains all over the country, even at a 115 degrees in the desert, thankful the whole set weighs less than my R8 tripod.



Trimble R-10 rover, TSC3 controller, and R-8 base, with its bonus (heavy) tripod. (yea I want to hike that up the mountain for my setup...) The market heavy weights! (yea pun intended)

We used to be Azule Land Surveying in Kingman, Arizona. We have relocated to the North Coast of California were the **Redwood forests** thrive operating now as Lost Coast Land Surveying out of Eureka, California.

Desert surveying has it's unique challenges but really are light weights when compared to trying to obtain precise measurement in the coastal **rain forests**.

We are **veterans of Land Surveying** having experience in many jurisdictions, environments/eco-systems from the tropics in south Florida, upper Midwest forests, desert southwest, and Alaska's arctic and coastal rain forest environments. **40 years of wondering in the wilderness** to be sure. We have used **most of the equipment and methods from the top vendors,** including traditional methods which remain the normal methods used in this part of California for obvious reasons. 300' tall trees and dense underbrush in coastal mountains make using anything else almost useless. One could almost remain competitive with a Gurley mountain transit and chain.

We have discovered though that where GPS is even remotely possible, **the TRIUMPH-LS is far superior** to any other system in it's ability to remain useful in this challenging environment.

Time after time finding it able to produce even when a competitor's top unit failed. I'd like to share an experience I recently had.

Back ground: ALTA survey in Miranda, California. After living on the north coast for a year and half, I returned to northern Arizona for a 1 year tour, I then returned to the north coast to support a new local survey effort with a company whose experience was elsewhere. Expectations where a little off to say the least. I was task to complete the job using the companies standard Trimble equipment set-up which in their opinion was second to none.

The site of this survey was 85% heavily wooded, mostly redwoods, steep terrain, and included a riparian boundary element, needing verification. Within an hour of being onsite I had the first monument recovered at the southeast corner of the parcel. I tried in vain to get a position with the Trimble R-10 in my arsenal.

Well being the boy scout I was I was prepared for this. Having been a part of the JAVAD TRIUMPH beta program, discovering previously the benefit of this amazing machine in the forests, and desert mountains, already purchasing it, I carried it with me, just in case.

So I pulled it out knowing pretty much I would have a position somehow with it, but what's more, I decided it was a stellar opportunity for me to do **a side by side test**.

#### The survey:



The record parcel map from 1992 being retraced. Followed by the topo sheet from mine.



We did a survey sheet but the topo sheet shows terrain plus most of the survey data, the company name is removed to protect the innocent, if any, since this was not recorded.

You will see the southeast corner of the parcel, this being the first monument found, the controlling lines being the south line of the parcel and the tie to the 6x6 concrete right-of way monument to the south. We ended up within tolerance at 0.09' and 0.11' M vs. R.

**R-10** occupying southeast corner.



**No fix!** 1m18 waiting 180 remaining preset.



## **TRIUMPH-LS** same point.



### Fix!

So with the TRIUMPH-LS I located the southeast corner of the parcel and verified it's record ties to the southwest corner and 6x6 monument to the south. The R-10 could not locate any.

Shot at the southwest corner. We got it with hybrid RTK PPK! Thank you Javad!



Shot at the 6x6 R/W monument. We got it RTK!



This is about 50' up creek from the northwest corner of the parcel. The reference point is about the center of this photo. We got it! Hybrid RTK. The creek is seen at the lower left of the photo, which is our north line, and the terrain and trees the same all the way to road, or worse.

**Guess what?** I located the creek and verified it to the record! Very rugged and tight canyon, but we got it!

#### And on a recent job, we got it!:





## Down in a 60 foot deep canyon, we got it!

JAVAD GNSS Note:

Beware that R10 system is much much more expensive than the TRIUMPH-LS system. TRIUMPH-LS not only saves your job, your money too.

### What a beautiful picture!

## Have fun guys.

## Make lots of money Twice as much!

# And how ugly competition can get!



A competitor's dealer at a state show takes one of our happy TRIUMPH-LS customers to his booth and tells him when Javad dies we will buy his company and close it.

Se vy

How ugly a person can get! Instead of promoting innovation, he wants to kill it for his personal stupid benefits.

Also the idiot does not know of two things:

1. That I am healthy like a horse and have no intention to die anytime soon.

2. That JAVAD GNSS is not a start up company. Over 130 people working on the TRIUMPH-LS alone. It is a solid deep rooted institution which does not depend on any one person, including myself.

#### TRIUMPH-1M



864 channel chip, equipped with the internal 4G/ LTE/3G card, easy accessible microSD and microSIM cards, includes "Lift & Tilt" technology.

#### **TRIUMPH-2**

Total 216 channels: all-in-view (GPS L1/L2, GLONASS L1/L2, SBAS L1) integrated receiver.

#### The one and the only Digital Radio Transceiver in the world!

Unique adaptive digital signal processing, which has benefits: the full UHF frequency range and all channel bandwidths worldwide • the best sensitivity, dynamic range, and the highest radio link data throughput • embedded interference scanner and analyzer • compatibility with another protocols. Cable free Bluetooth connectivity with GNSS receivers and Internet RTN/VRS access via embedded LAN, Wi-Fi, and 3.5G



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