You've come a long way, Survey!

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- **Try TRIUMPH-VS and Compare!**
- **Sign the petition to President Obama**

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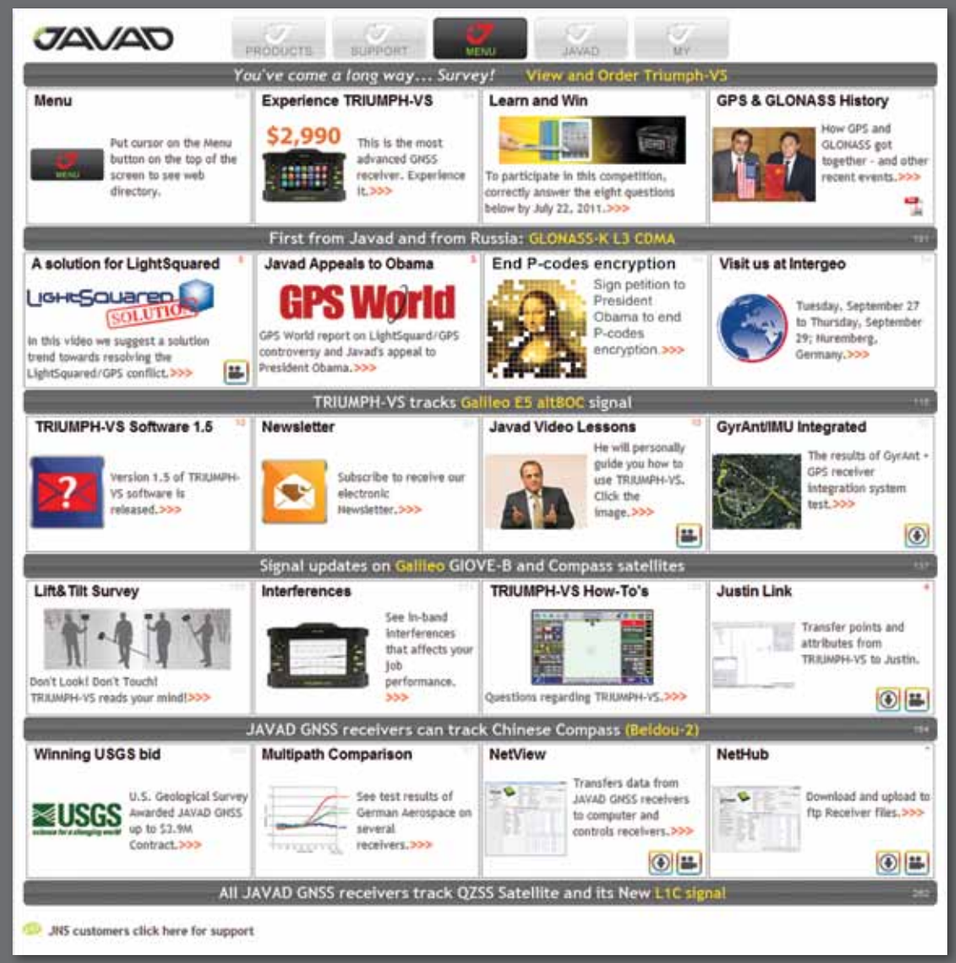


Introducing TRIUMPH-VS

Revolutionary new GNSS complex that combines high performance 216-channel GNSS receiver, all-frequency GNSS antenna, and a modern featured handheld.

- Complete RTK rover unit

TRIUMPH-NT

- Where you don't need internal GNSS antenna

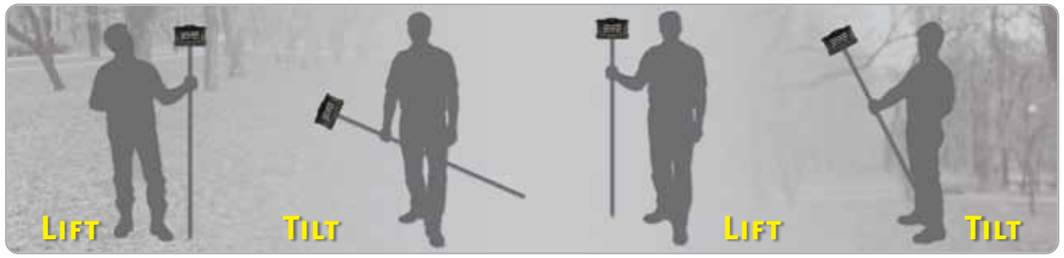
Same as TRIUMPH-VS but without internal GNSS antenna, inclinometers, compass and cameras.

VICTOR-VS

- 4.3-inch display of 800x480 pixels
- Integrated camera 3 Mpixels

We complete our receivers with an ultra-rugged Windows CE controller for Field Applications. VICTOR-VS is powerful, waterproof, shockproof and versatile.

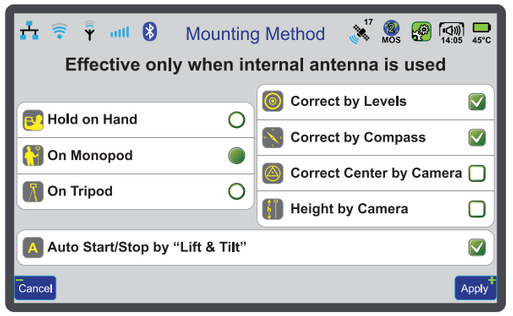
Don't Look! Don't Touch! ... Survey with Lift&Tilt



It seems TRIUMPH-VS reads your mind! Many sensors, intelligence, and innovations inside TRIUMPH-VS bring this new revolution to surveyors.

You don't need to look. You don't need to touch.

First, put TRIUMPH-VS in "Lift & Tilt" mode.



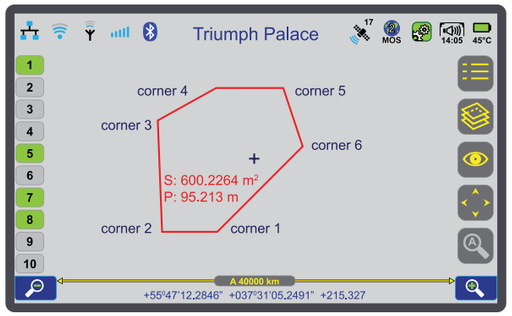
- Then, go to the survey mark, lift TRIUMPH-VS to near vertical (better than 5 degrees). Survey will start automatically and sensors continuously compensate for leveling offsets. Audio tones keep you informed of the survey progress. You can use a headset if you are in noisy area. You can also take notes by talking to TRIUMPH-VS.

- When you are happy with the survey result, just tilt the TRIUMPH-VS (more than 15°) and walk to the next point. TRIUMPH-VS will close files automatically.

- Then go to your next point. Lift it up and do again as you did in the previous survey point: Do Nothing! Just lift it up to near vertical.

- When you are happy again, tilt it again, and walk to the next point. Points and file names will auto-increment. You can over-write names if you like.

- If you are doing a parcel survey (for example) after the last parcel point, push "Parcel End" and see the parcel map, parcel area and parcel perimeter instantly.



See who jams your GPS/GNSS

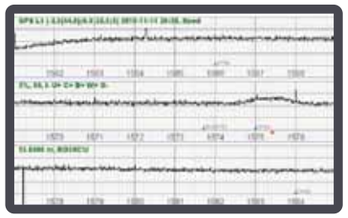
TRIUMPH-VS

shows interferences in all GNSS bands
Including LightSquared possible interferences

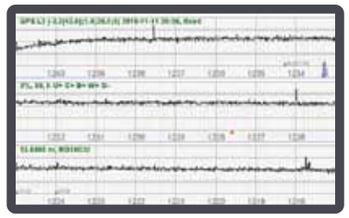
Your GNSS receiver sometimes does not track satellites? Sometimes RTK solutions get stuck in “Float”, or take longer to converge to “Fixed”? You may have interferences in one or more of your GNSS bands. In addition to harmonics of signals like local TV and radio stations, now there are $10 GNSS jammers on the market that interfere with GNSS signals as well!

The GNSS interference analyzer feature of TRIUMPH-VS does much more than a generic $30,000 spectrum analyzer. TRIUMPH-VS shows interferences by analyzing signals before RF and after digital sections and quantifies how much interference is in your neighborhood. See the reverse side for more detail.

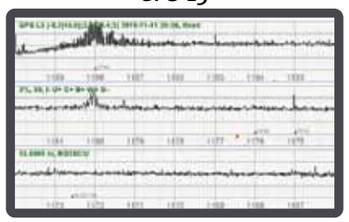
GPS L1



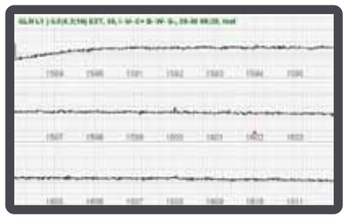
GPS L2



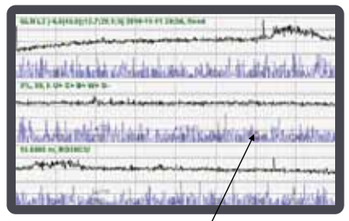
GPS L5

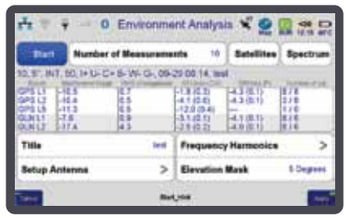


GLONASS L1



GLONASS L2





Center of the Band

TRIUMPH-VS not only scans the GNSS bands and shows the shape and frequencies of the interferences, but it also quantifies the magnitude of the interferences in two distinct and complementary ways: a) by analyzing the analog signal and determining the “Interference Magnitude”, and b) by analyzing the S/N (Signal-to-Noise ratio) of all satellites’ signals after they are digitized and processed (after code and carrier correlations) and determining the “Satellites S/N loss” due to interferences.

“Interference Magnitude” is determined by analyzing the amount of gain that we can apply to the GNSS signal before digitizing it. The more interference there is, the less we can amplify the signal to avoid saturation. We can determine the “Interference Magnitude” by comparing the actual amplification magnitude with our nominal amplification magnitude (when no interference exists).

“Satellites S/N loss” is determined by comparing the actual measured S/N of each satellite (for each of its signals) with its nominal S/N at that elevation angle and then averaging all such deviations for all satellite signals.

TRIUMPH-VS not only analyzes and shows interferences, it also has In-Band Interference Rejection option that removes in-band interferences.

Try TRIUMPH-VS and Compare!

First visit www.javad.com and view our 21 GNSS Video Lessons (total of about 4.4 hours). It will be a good learning experience, even if you do not proceed with the following offer:

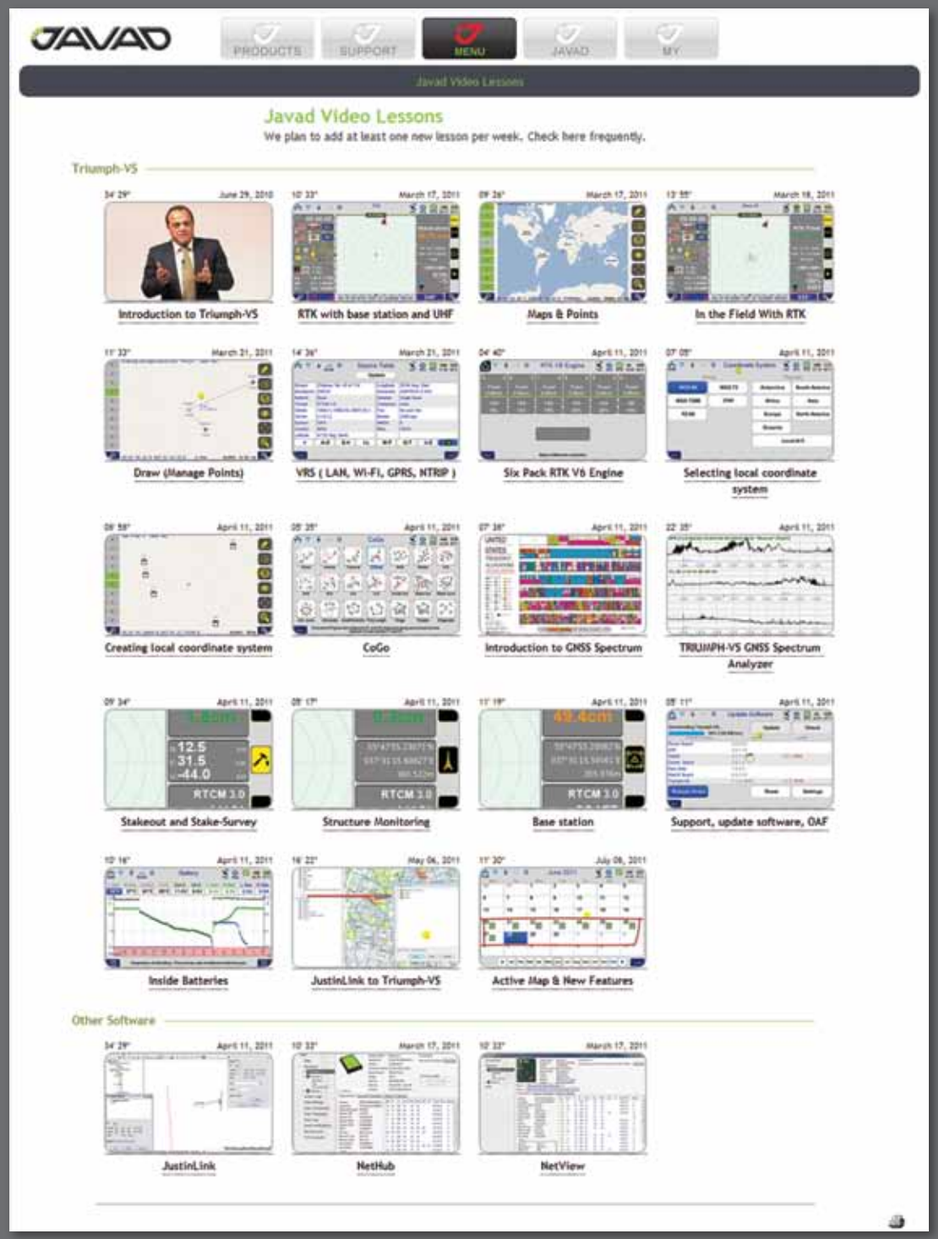
- **To experience the TRIUMPH-VS, pay $2,990 and receive one complete system with all accessories for RTN/VRS RTK, or RTK using your own base station (like a TRIUMPH-1 or another TRIUMPH-VS).**

- **Experience it for one month. To purchase it, send us three additional monthly payments of $2,990. Or send it back for a full refund.**

Visit our dealer near you or www.javad.com

Limited time offer and subject to credit approval.

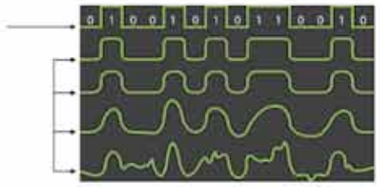
www.javad.com
Video Lessons



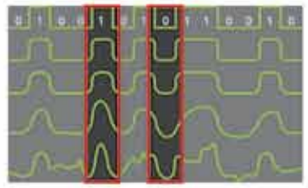
Mona Lisa is back ...

GNSS is affected more by interferences

High precision GNSS receivers are more sensitive to interferences because GPS digital signals are used for "ranging".



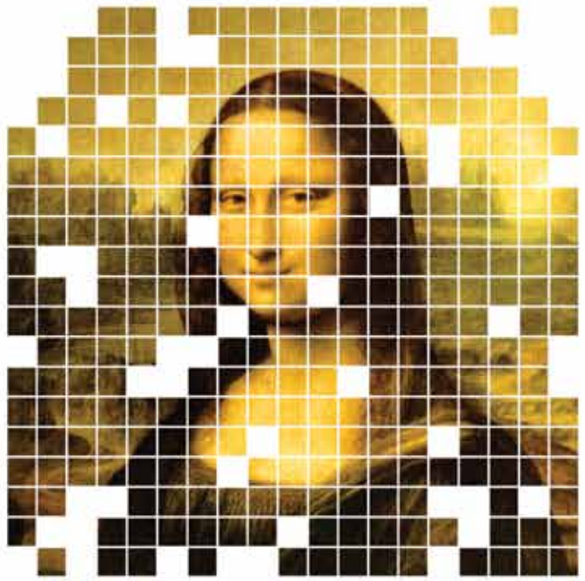
Communication devices recover "1"'s and "0"'s of a digital signal in all signal examples shown in this graph.



GNSS receivers need to measure distances by marking the arrival times of signals. Hence signals need to have clean and sharp edges to clearly mark the arrival times.

P-codes encryption, bad science and bad politics

Our campaign against Selective Availability was successful. Please join the efforts to end P-codes encryption now.



Encrypting GPS P-codes is a step backward in providing the best of this excellent work of science and art. As the leader in GPS technology, we consider P-codes encryption as being neither good science nor good politics.

Policy to encrypt P-codes is outdated

Encrypting P-codes has made GPS 1,000 times more vulnerable to interferences, especially for high precision applications. Encrypting should be done only where and when needed.

Policy to Encrypt P-codes is over 30 years old.

Then it was against Soviet Union. We had missiles targeted at each other. Now Soviet union is gone and Russia is our friend.

Then Russia did not have GNSS. Now Russia has its own GLONASS with un-encrypted P-codes.

Then there was "Iron Curtain". Now Presidents Obama and Medvedev signed 3-year visa exchange programs.

Then the concept of using GPS for high precision application did not exist. Now GPS is used in high precision applications with huge economical benefits.

Then there was no concept of broadband usage (like LightSquared). P-codes encryption makes GPS much more vulnerable to LightSquared.

Then P-codes were the only codes for military usages. Now U.S. Military has a new plan for its signals.

Since its inception, GPS in general and P-codes in particular was never used to attack U.S. national security.

GLONASS P-codes never encrypted and Russians national security did not suffer. Reliable RTK is not possible without combining GPS and GLONASS.

Since the inception no benefit came from encrypting P-codes, but all precision users suffered by a factor of 1,000.

Petitions to President Obama