

# **Triumph-VS in focus**



## And now...

We can track Chinese **Compass Satellites** (Beidou-2)

# **JAVAD GNSS receivers can track**

With modified firmware, all JAVAD GNSS receivers can track Chinese COMPASS B1 signal now. This is 6th GNSS system supported by JAVAD GNSS (GPS, Glonass, Galileo (Giove), SBAS (WAAS, EGNOS), QZSS, COMPASS). Log file, collected on TR\_G3TH board in Moscow during weekend, reported up to 26 (!) satellites locked simultaneously see picture below.

Among them:

11 GPS satellites with C/A, P1, P2, L2C, L5; 8 Glonass satellites with C/A, P1, P2, L2C; 1 Galileo (Giove) satellite with E1, E5A; 2 SBAS (EGNOS) satellite with C/A; 1 QZSS satellite with C/A, SAIF, L<sub>2</sub>C, L<sub>5</sub>, L<sub>1</sub>C 3 Compass satellites with B1.



Compass system currently consists of 6 alive satellites, 4 of them are visible in Moscow: COMPASS-G3, COMPASS-IGSO1, COMPASS-IGSO2 and COMPASS-M1. Their day track is shown on next picture.

> WEEK = 1621 DAY = 834 ( THU ) -IYEARS DAY = 1138 DATE : 83 / FE8 / 2811 BEBIN TIME = 88 END TIME = 24 DEL: SCR OBS DES: 1NV OF TODAY NOU DOP OFF: sokal A ROT = 888 LATITUDE = 55 LONGLTUDE = 837 RETITUDE = 8288 [m] LODAL TIME - GHT = 83 [h]



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

💤 🛜 🖣 💷 🚷 Mountin	g Method 🛛 🕺 🧟 🥵 🌆 💭
Effective only when internal antenna is used	
	Orrect by Levels
	Correct by Compass
	Orrect Center by Camera 🗌
	Height by Camera
Auto Start/Stop by "Lift & Tilt"	
Cancel Apply*	

# TILT

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

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.

Patents pending



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.



## **Patents pending**

# **Chinese Compass (Beidou-2)**

Below are Doppler, SNR and "code-minus-phase" graphs for all these satellites (G<sub>3</sub>=211, IGSO1=212, IGSO2=213, M1=214), collected during their pass:





JAVAD GNSS will add COMPASS tracking to almost all receivers in near future (firmware upgrade).

















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