

# JAVAD

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## Triumph-VS in focus



And now...

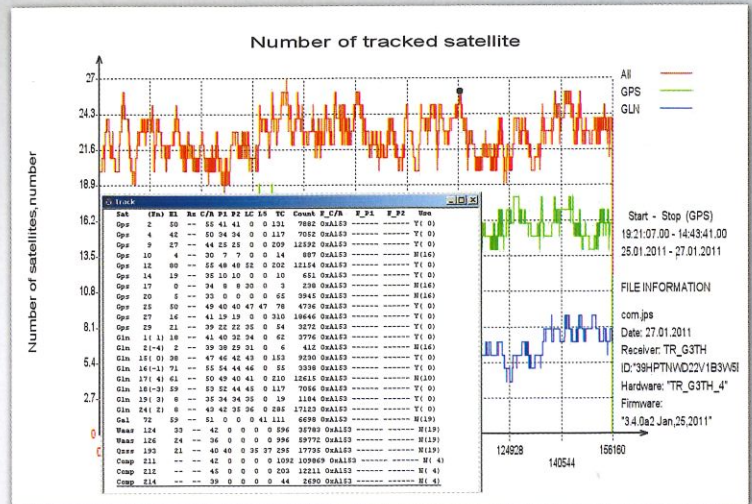
**We can track Chinese  
Compass Satellites  
(Beidou-2)**

# JAVAD GNSS receivers can track

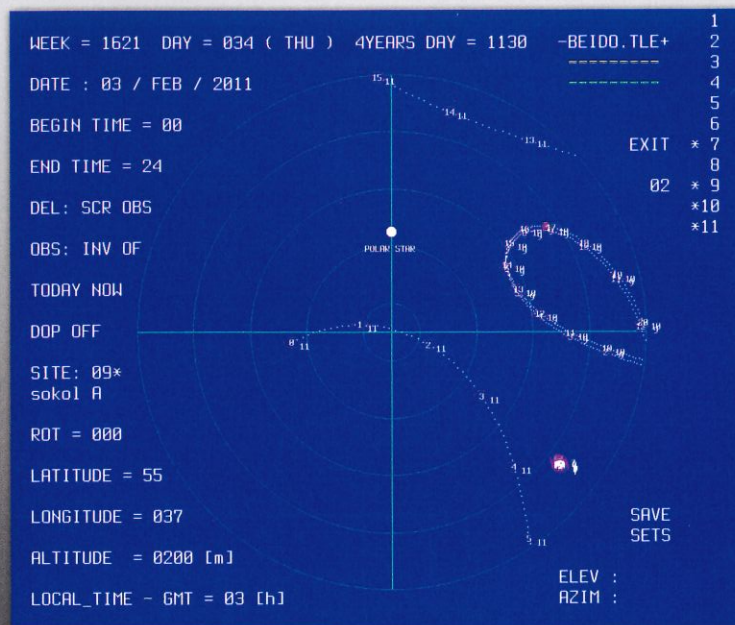
With modified firmware, all JAVAD GNSS receivers can track Chinese COMPASS B1 signal now. This is 6th GNSS system supported by JAVAD GNSS (GPS, Glonass, Galileo (Giove), SBAS (WAAS, EGNOS), QZSS, COMPASS). Log file, collected on TR\_G3TH board in Moscow during weekend, reported up to 26 (!) satellites 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, L2C, L5, L1C
- 3 Compass satellites with B1.

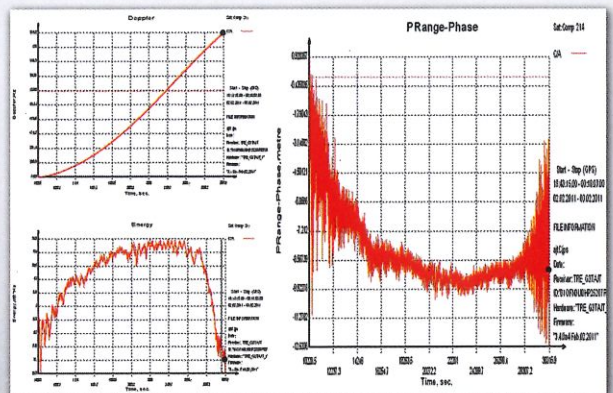
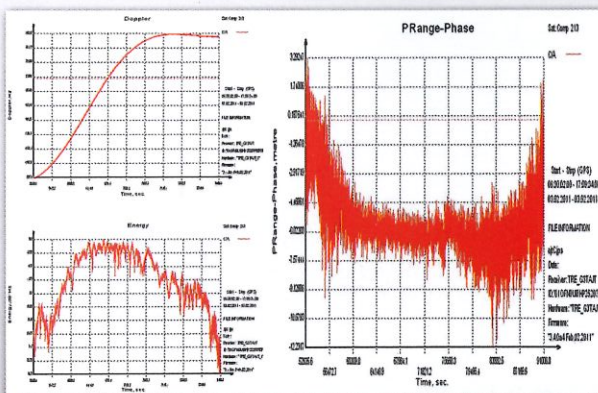
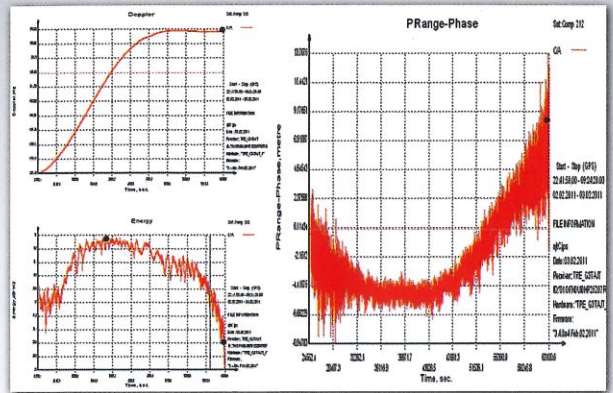
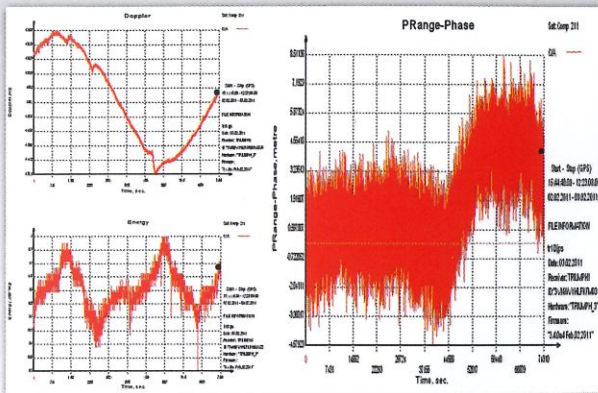


Compass system currently consists of 6 alive satellites, 4 of them are visible in Moscow: COMPASS-G3, COMPASS-IGSO1, COMPASS-IGSO2 and COMPASS-M1. Their day track is shown on next picture.



# Chinese Compass (Beidou-2)

Below are Doppler, SNR and “code-minus-phase” graphs for all these satellites (G<sub>3</sub>=211, IGSO<sub>1</sub>=212, IGSO<sub>2</sub>=213, M<sub>1</sub>=214), collected during their pass:

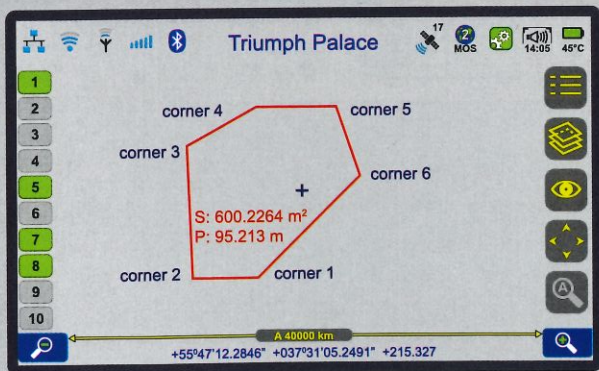


JAVAD GNSS will add COMPASS tracking to almost all receivers in near future (firmware upgrade).

# TILT

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

# LIFT

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.



Patents pending

# TILT

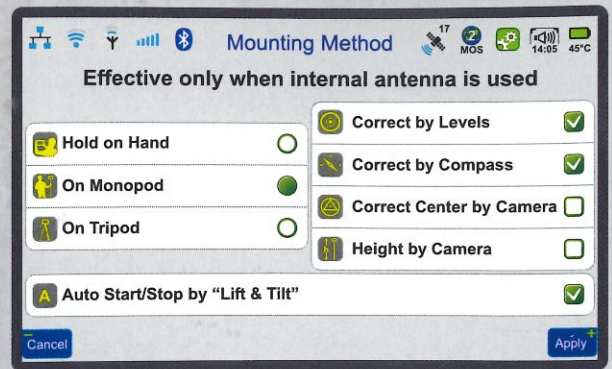
When you are happy with the survey result, just tilt the TRIUMPH-VS (more than  $15^\circ$ ) and walk to the next point. TRIUMPH-VS will close files automatically.



Patents pending

# LIFT

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.

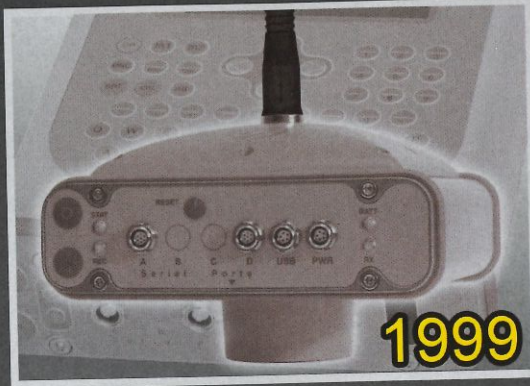
Patents pending



1983



1989



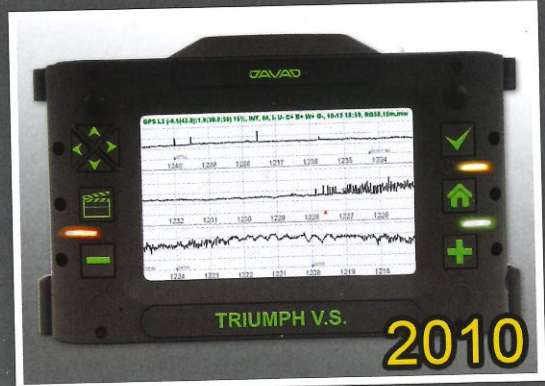
1999



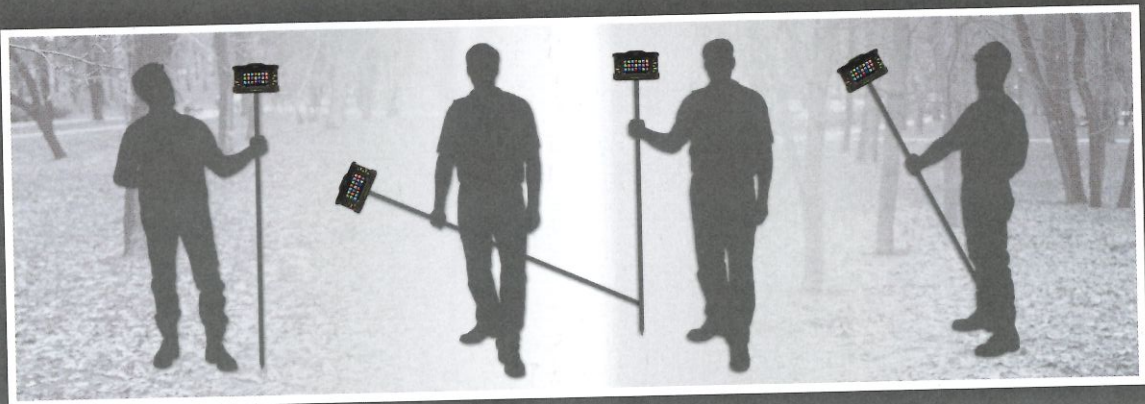
2007



2010



2010



Sarad Ashjee