



Using Multiple GPS Units on one Mobile in HYPACK® 2014

By Jerry Knisley

To use multiple GPS units on a single mobile (so you have a backup in HYPACK® 2014) the hardware must be configured with two GPS drivers *recording position only*. If the GPS units are producing heading, set up a NMEA.DLL for the HDT string on the same port as one of the GPS units.

The SURVEY program checks for multiple position devices using the position driver. When you launch the SURVEY program, a new window — the BOAT MULTI POSITION window—appears.

On the map, you see two circles. One of them is a red circle with a line through it. The other is a green circle around the position currently used by SURVEY. In Figure 1, the primary GPS is selected in the Boat Multi-position window. SURVEY uses the position from this device to position the vessel and update the Data Display; that data is stored in the POS record in the RAW files.

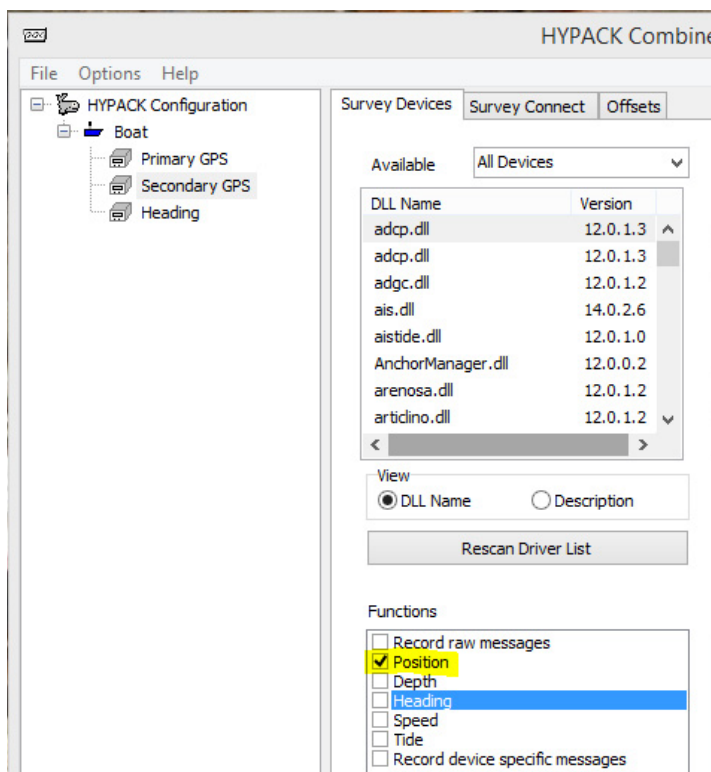
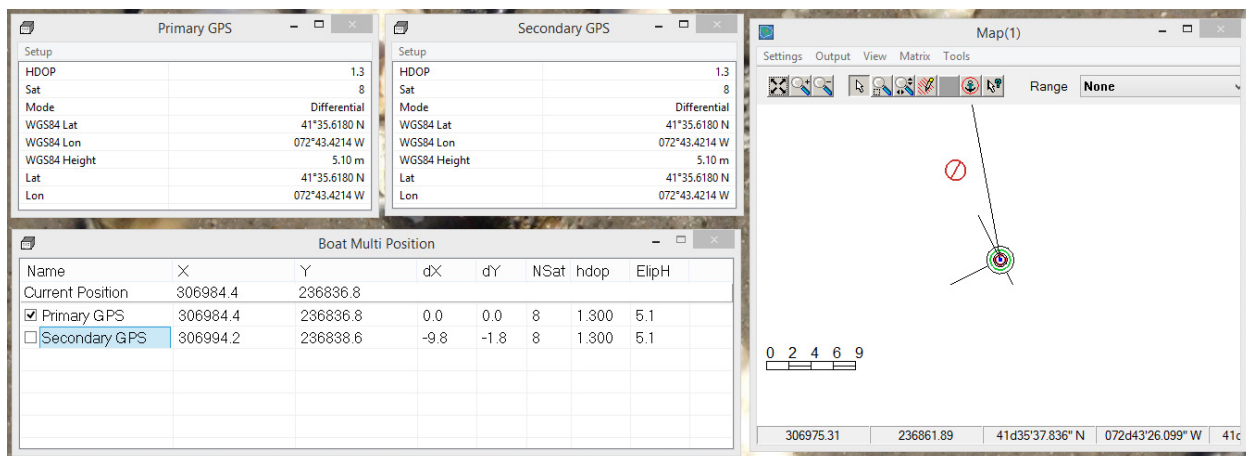


FIGURE 1. The Primary GPS is Set in the Boat Multiposition Window



The RAW files record the location of all three positions, generating an added device number for the averaged position.

Note: All actual GPS readings are RAW without offsets applied. The offsets are applied in real time and the data is stored as *raw* Easting and Northing. The offsets are *reapplied* in editing.

Sample Position Records—
2 Position Devices (devices
#0 & 1), and the Average
Position (device #3) in 1
Raw File

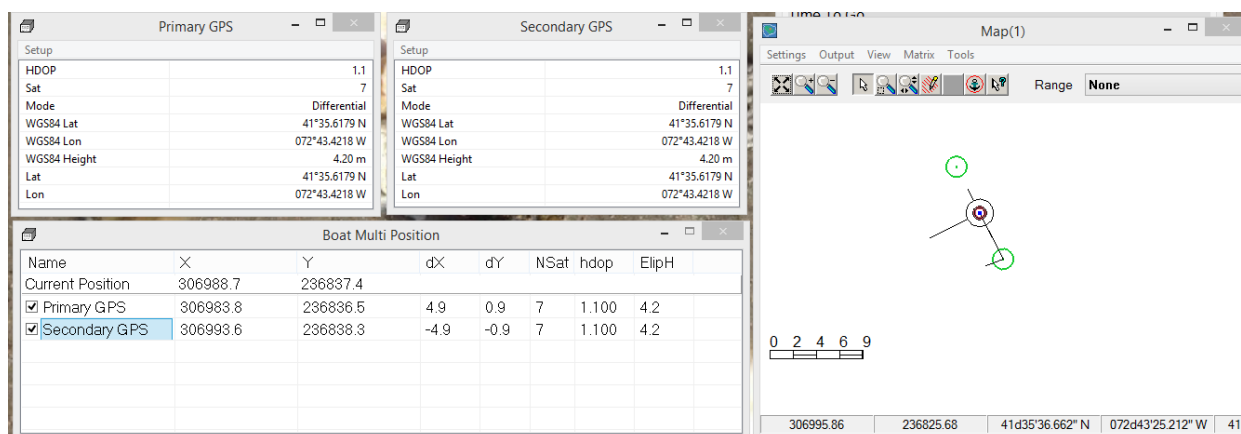
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POS 1 47510.392 500059.135 2999827.068
POS 0 47510.386 499817.643 3000026.255
POS 3 47512.395 499998.389 2999994.161

```

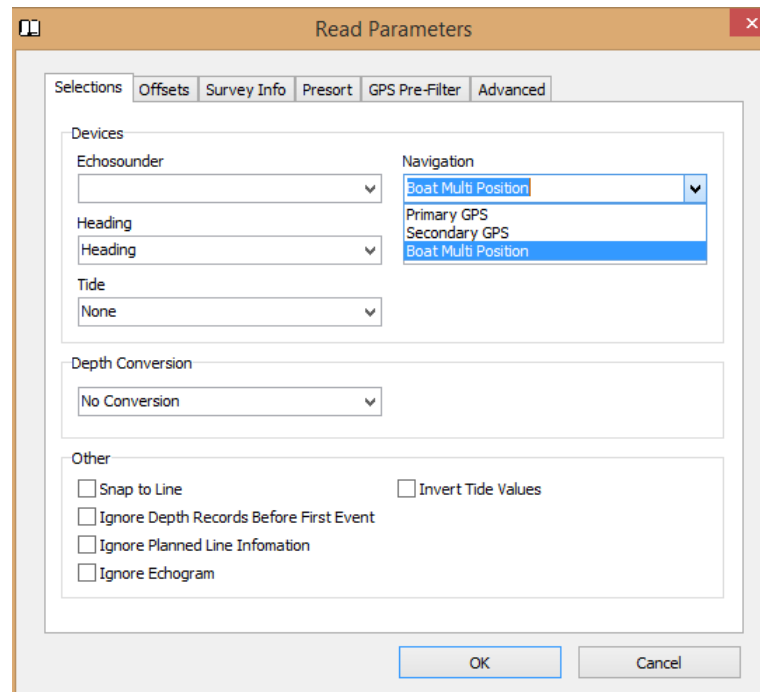
If both positioning devices are checked, the current position is the average of the two GPS units. On the map display, both GPS positions are circled in green, but the vessel is shown at the average position.

FIGURE 2. 2 Position Devices Checked—Current Mobile Position is the Average of the Selected GPS Units



When you open the file in the SINGLE BEAM EDITOR, you may choose the Primary GPS, the Secondary GPS or the averaged Boat Multi-position location.

FIGURE 3. Choosing Position Records in the SINGLE BEAM EDITOR



This location is the position that was chosen throughout the recorded file. If you selected different sources in the survey, the current position selected was stored in this navigation devices location.

Figure 4 shows four GPS units displayed as green circles because they are all checked. The position in the middle is the average position.

FIGURE 4. The Mobile Position is the Average of all Currently Selected POS Devices

