

### **Experiences of using TerraPos positioning system**

TerraPos is a new GPS post processing software package developed by the company TerraTec. TerraPos utilizes GNSS published ephemerides and clock corrections together with observations from high quality GNSS-receivers to compute accurate positions.

TerraPos has been in full production for over a year. The experiences with the system are absolutely positive and show a high degree of stability, although some minor issues have been raised – and solved.

The achieved accuracy from the system depends upon several factors: The type of ephemerides used, the GNSS geometry, number of satellites observed and multipath conditions. The accuracy is typically better than 10cm (95%) for the vertical and 6cm for the horizontal.

NHS has developed some programmes to integrate TerraPos into NHS production line, among which is a programme that makes the post processed positions available in the Neptune system. These programmes have been made available to those interested, free of charge.

TerraTec is currently developing a differential solution for the NHS. This solution will make it possible to use post processed GNSS solutions as a reference for a GNSS rover system, improving its accuracy drastically compared to stand-alone. Both solutions will be post processed when ephemerides are available. This option will be used for surveying of on-shore objects, such as piers, quays etc. where stand-alone TerraPos is less suitable due to the requirement for 2-3 hours continuous observations