TERRASTAR-C

TERRASTAR-C is an advanced GNSS correction dataset delivered globally from our high availability infrastructure. It complements the other **TERRASTAR** datasets, and allows our Partners to further improve the accuracy and robustness of the real-time solution they provide.

TERRASTAR are providers of data which is used to improve the performance of GNSS based positioning in land and airborne applications. In partnership with GNSS hardware manufacturers, we deliver a range of datasets which allow sub-decimeter levels of accuracy and improved robustness in the end user solution. These datasets include corrections to satellite orbits and clocks, bias information and other variables that allow the reduction of position errors at the receiver.

Dual-frequency code and carrier-phase capable receivers combine the TERRASTAR-C data with state-of-the-art error models and positioning algorithms to remove and reduce errors to the maximum possible extent. Using both GPS and GLONASS satellites helps maintain the expected level of accuracy even in more difficult user environments, and reduces the solution convergence time.

The TERRASTAR-C dataset contains information that enables carrier phase ambiguities to be resolved to their true integer values within the receiver position solution, such as orbit and clock corrections, and bias information. It also uses an improved data update rate in the message broadcast. "Fixing" ambiguities in this way is a cornerstone of the most accurate GNSS techniques and allows absolute positioning accuracies of a few centimeters to be achieved.

TERRASTAR-C not only allows another step forward in positioning accuracy, but by fixing ambiguities it also enables a more robust positioning solution with the ability to quickly regain its full accuracy following a temporary loss of GNSS signals. This offers benefits for users who suffer temporary signal blockages.

The dataset is generated using TERRASTAR's global network of tracking stations and its multiple and redundant Orbit and Clock Determination Systems (OCDS) infrastructure. These facilities have been further upgraded to support this new level of performance, while maintaining the same high level of service robustness and reliability, as already offered by the TERRASTAR-D dataset.

The method of computing and distributing this data means that it can be used at any location, irrespective of the user's proximity to the TERRASTAR tracking network or availability of cellular communications.

For more information on the TERRASTAR-C dataset and the receivers which support it, please visit our website, or use the contact information below.
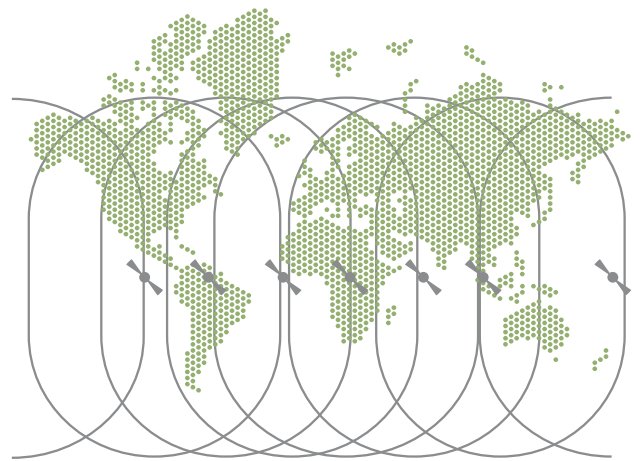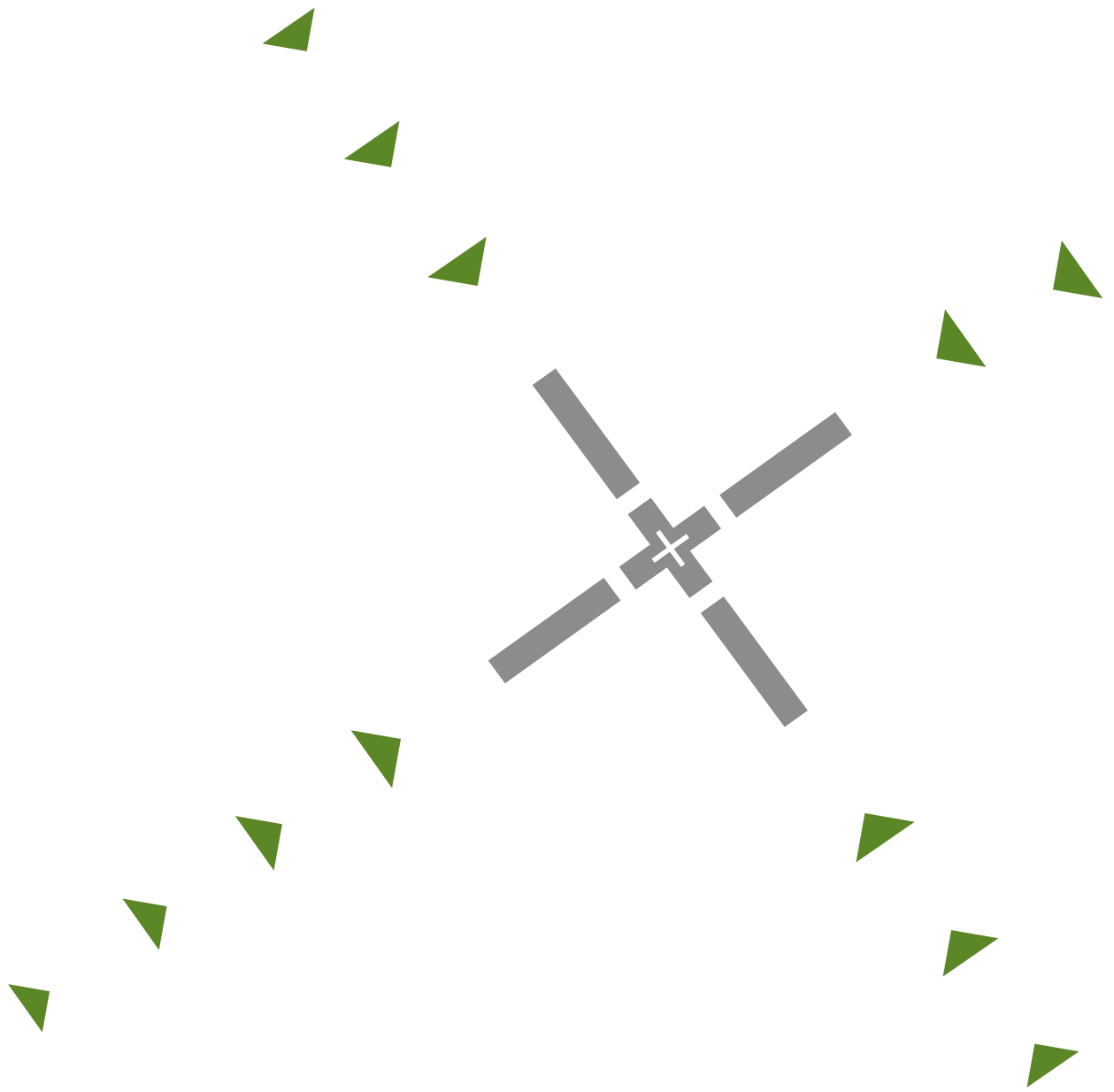
TERRASTAR   info@terrastar.net   www.terrastar.net

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