CEESCOPEs for 2019 Now Exclusively With Hemisphere Eclipse GNSS with Atlas L-Band Differential Corrections

For 2019 CEESCOPE models onwards, built-in differential GPS receivers will be exclusively Hemisphere’s Eclipse OEM receiver. Replacing the older Crescent and NovAtel OEMStar GPS boards, the Eclipse represents a huge increase in specifications for even the most basic CEESCOPE models. The latest Eclipse receiver, integrated at the electronic board level inside the CEESCOPE, offers an enormous increase in available channels, with over 450 available for satellite signals on multiple frequencies, and an improved time to fix. However, the key benefit is the possibility of activating Hemisphere’s worldwide Atlas L-Band differential correction service on any non-RTK CEESCOPE, greatly improving flexibility for surveys world-wide. The CEESCOPE is often used by surveyors headed to remote locations away from RTK networks and differential corrections infrastructure such as WAAS and EGNOs SBAS corrections services. Having a worldwide differential corrections option through the Atlas system provides CEESCOPE users a cost-effective method to achieve 0.1-0.5m accuracy anywhere.

The basic CEESCOPE may be specified with a 10Hz Hemisphere Eclipse GNSS receiver without any supplemental Atlas L-Band corrections – for example, if submeter accuracy is adequate and surveying will be in a region with access to free SBAS correction signals, such as North America or Europe. This represents the lowest cost option. If the survey is outside a region with SBAS coverage, this option is not viable as the GNSS receiver would have to operate in a fully autonomous mode resulting in only 3-5m accuracy. To avoid this situation, improved accuracy and access to multi-constellation satellite data can be enabled by adding the Atlas BASIC subscription to the CEESCOPE. Atlas BASIC provides 0.5m accuracy and also offers the advantage of potentially using substantially more satellites in the position solution. The provision of multi-constellation positioning with the Atlas system means the Atlas BASIC-enabled CEESCOPE will provide a better solution, especially in restricted sky conditions, than an SBAS-only CEESCOPE. The Atlas BASIC subscription is loaded at the CEE HydroSystems factory and does not require any ongoing subscription repeat fees or maintenance; the activation lasts for the life of the receiver. For even greater accuracy, the subscription Atlas H10 service offers up to 8cm accuracy worldwide. Any CEESCOPE echo sounder with the Hemisphere Eclipse GNSS receiver option may be activated to receive H10 – independent of whether Atlas BASIC is activated.
More About Atlas, from Hemisphere:

Atlas is an innovative, industry-leading GNSS-based global L-band correction service, providing robust performance at market-leading prices. Atlas is a flexible and scalable service, delivering its correction signals via L-band satellites at accuracies ranging from meter to sub-decimeter levels. Leveraging approximately 200 reference stations worldwide and with L-band satellites distributing Atlas corrections, the entire globe is virtually covered. The Atlas GNSS global correction service provides correction data for GPS, GLONASS, and BeiDou constellations.

Atlas correction service is available on all Hemisphere Atlas-capable single- and multi-frequency, multi-GNSS hardware. Atlas complements third-party GNSS receivers by allowing them to use Atlas corrections with Hemisphere’s innovative BaseLink™ and SmartLink™ capabilities.

When using multi-frequency hardware, Atlas corrects more satellites than ever before, which creates faster convergence times and is robust and reliable in canopy or foliage covered areas. With both single- and multi-frequency hardware, Atlas achieves instant global sub-meter positioning accuracy, comparable to, and typically more robust than SBAS, since Atlas corrections contain data from multiple available constellations.