

Service Atlas

Atlas™ is a worldwide GNSS differential correction service, offering the most innovative base station-free



corrections via L-Band satellites at accuracies ranging from meter level to a few

centimeters. The Arrow 200 GNSS, with its L-Band option, provides worldwide

decimeter positioning to your smartphone, tablet or notebook computer. With

approximately 200 reference stations worldwide and L-Band satellites distributing coverage from 75°N to 75°S, all of the earth's landmass is covered.

Service Levels

Three levels of service are currently offered by Atlas, H100, H30 and H10. They offer the

following accuracy:



- **H100:** 1 m 95% (50 cm RMS)

- **H30:** 30 cm 95% (15 cm RMS)

- **H10:** 8 cm 95% (4 cm RMS)

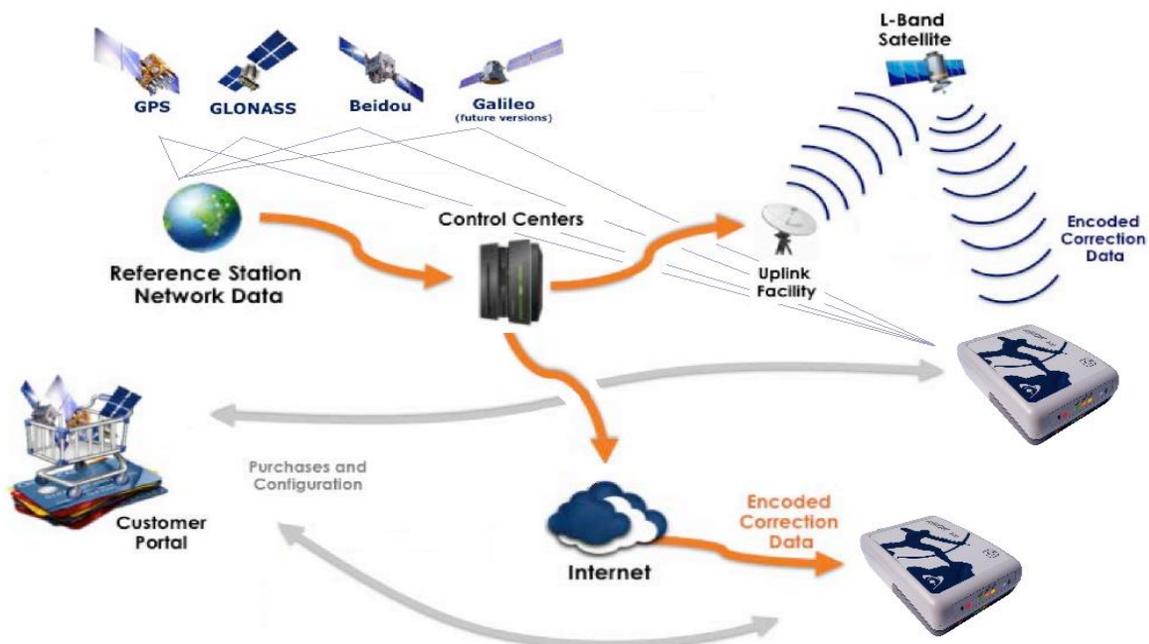


How it works

GNSS data are collected from approximately 200 base stations spread all over the world. Data is then processed at the Control Centers and corrections are uplinked to strategically located geostationary satellites.

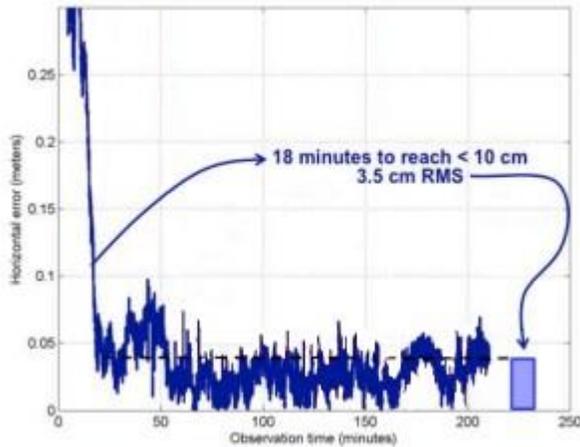
Each satellite broadcasts corrections for its region over specific L-Band frequencies.

The Arrow 200, when subscribed to an Atlas service, receives both GNSS signals and the L-Band corrections on the same antenna and outputs a corrected position to your mobile device.



Atlas corrections are also available over the Internet. In this case, the Arrow's integrated L-Band radio is not necessary but internet connectivity (eg. Wifi, cellular, etc.) is a must.

What to Know about Atlas Convergence



The Arrow 200 uses the Atlas signal in a similar way of using carrier phase from an RTK network, with the difference that the corrections are global as opposed to local. Because of this, Atlas requires a longer convergence time than RTK to achieve the specified accuracy.

For the H100 service, reaching submeter is nearly immediate. For H30, an average of 4-5 minutes is required. For the H10 service, typical convergence time

varies between 12 to 20 minutes depending on the GNSS constellation.

Once convergence is achieved and since carrier phase is used, the accuracy will remain consistent (even improve) as you collect data as long as the Arrow's antenna maintains a clear, unobstructed view of the sky.

Benefits of using the Arrow 200™ GNSS with Atlas

The Arrow 200 using the Atlas service offers the following benefits:

- World-wide real-time coverage
- 3 levels of service: sub-meter, sub-foot and decimeter
- Uses all constellations (GPS, GLONASS, Galileo, BeiDou) in view for faster and more robust convergence
- Very compact field solution with integrated battery and L-Band radio
- Competitive subscription pricing