



Press Contact:  
Sarah Guffey  
Dadascope  
sarah@dadascope.com  
815.630.9557

## Swift Navigation Announces Full GLONASS Support for Piksi Multi

### *Firmware Release 1.4 Provides Step Change Improvement in its Centimeter-Accurate GNSS Technology*

San Francisco, CA—March 13, 2018—**Swift Navigation**, a San Francisco-based tech firm that is building centimeter-accurate GPS technology to power a world of autonomous vehicles, today announced the latest firmware upgrade to its flagship product Piksi® Multi GNSS Module. This marks the fourth improvement since Piksi Multi began shipping one year ago. The firmware release also enhances Duro®, the ruggedized version of the Piksi Multi receiver housed in a military-grade, weatherproof enclosure designed specifically for outdoor deployments.

The upgrade is available at no cost to Piksi Multi and Duro users and provides full support for GLONASS, in addition to the GPS satellite constellation. Access to dual constellations greatly improves availability, reliability and range between GNSS base and rover devices. This firmware release also adds NMEA GGA output capability to existing NTRIP (Networked Transport of RTCM via Internet Protocol), enabling Piksi Multi and Duro to seamlessly position by sending and receiving data from CORS (Continuously Operating Reference Station) base stations over the Internet.

#### **Firmware Version 1.4 Enhanced Receiver Performance Highlights Include**

- **GLONASS + GPS Support**—The new firmware provides full and reliable Integer Ambiguity Resolution for GLONASS (G1/G2) + GPS (L1/L2C) for use with Swift Navigation products and most third-party base stations
- **RTCM 1230 and 1033 Interoperability**—allows Piksi Multi and Duro to communicate with many third-party industry-standard receivers
- **NTRIP NMEA GGA Support**—enables network RTK solutions and Virtual Base Network (VBN) services
- **Additional Fundamental Improvements**
  - Full position and velocity covariances now published for advanced users for use in autonomous systems
  - Carrier phase reacquisition was improved by seconds

- Fix reliability and availability was enhanced for extremely precise positioning
- Accuracy in SPP mode was increased when RTK is not available

"The 1.4 firmware release is a step change improvement for our customers deploying Piksi Multi and Duro," said Fergus Noble, CTO of Swift Navigation. "The addition of a second GLONASS satellite constellation enhances reliability and centimeter-accurate positioning in challenging environments, better supporting ground applications in precision agriculture, robotics and autonomous vehicles. Best of all, our customers benefit from new features delivered as a software update, at no additional cost and with no changes to their Piksi Multi or Duro hardware, underscoring Swift's commitment to continuous improvements in our product lines."

For more detailed information about these upgrades, please refer to the [Piksi Multi 1.4 Firmware Release Notes](#). For detailed instructions on how to upgrade your Piksi Multi device, refer to Section 7 of the Getting Started Guide entitled [Piksi Multi - Upgrading Firmware](#). For firmware release binaries and product support documentation visit [support.swiftnav.com](http://support.swiftnav.com).

## ABOUT SWIFT NAVIGATION

**Swift Navigation**, Inc. was founded in 2012 to make GPS positioning technology more accurate and affordable. Today Swift Navigation has gained a reputation for defining a new category of GNSS systems as the industry's first low-cost, high accuracy real-time kinematics (RTK) receiver. Its GPS and GNSS positioning products are available a fraction of the price of the competition and deliver 100 times better accuracy than the GPS in a cell phone. Swift Navigation's technology benefits a multitude of industries and applications—including autonomous vehicles, unmanned aerial vehicles (UAVs), precision agriculture, robotics, surveying and space. With its innovation and technology honored by [Inc.'s 2016](#) and [Forbes 2017](#) 30 Under 30 lists, Swift Navigation is enabling a world where fields farm themselves, drones fly safely and autonomous transportation can take you home. Learn more at [swiftnav.com](http://swiftnav.com) or follow Swift on Twitter [@Swiftnav](#)

# # #