Locata Unveils World’s First GPS-style Indoor Positioning Solution at Institute of Navigation GNSS 2011 Conference

-TimeTenna Technology to power new positioning applications in automation, commercial and other industrial markets-

PORTLAND, Oregon—ION GNSS 2011 Conference—September 21, 2011—Locata Corporation today announced it will unveil the TimeTenna, a breakthrough positioning antenna technology that – for the first time – allows centimeter-accurate, GPS-style positioning indoors. Building on the company’s ground-breaking new terrestrial positioning system, the Locata technology will enable new high-accuracy positioning, machine automation and robotics applications indoors and is initially aimed at warehousing and industrial applications. The company is demonstrating this revolutionary new technology in a ballroom deep inside Portland’s Oregon Convention Center, the venue for this year’s prestigious Institute of Navigation (ION) GNSS Conference being held September 19-23, 2011.

Locata’s unique high-accuracy terrestrial positioning technology LocataNet™ is already deployed outdoors by partners such as Leica Geosystems and organizations including the U.S. Air Force. Locata’s new indoor solution will enable businesses to automate, locate and direct equipment such as forklifts and other machinery, in radio navigation settings where it has previously been impossible. Locata has already taken steps to begin miniaturizing the core antenna technology to ultimately allow high-accuracy positioning indoors for personal devices like mobile phones.

“Today, Locata is instrumental in delivering the future of positioning technology, creating ‘indoor GPS’ that is just as complete and accurate as traditional outdoor GPS,” said Nunzio Gambale, CEO of Locata. “After years of development and testing, we have architected the only system in the world capable of providing precision positioning across large indoor areas where GPS signals can’t reach.”

To accomplish this incredible technical breakthrough, David Small, Locata’s co-founder, has had to overcome the problem of multipath – the fact that radio signals bounce chaotically indoors and therefore become impossible to track correctly. “Multipath has always been the bane of high-accuracy radio positioning indoors,” continued Gambale. “And I can sincerely say David has created a historic world-first with this invention of a completely new type of antenna that mitigates multipath. The TimeTenna is utterly unique in the way that it works.”

Satellite-based GPS signals were not designed to reach indoors and are therefore unable to pass through even minor obstructions. When this is added to multipath conditions with signals bouncing repeatedly off walls and/or other objects, accurate and reliable positioning becomes impossible. Locata’s patented Correlator Beam Forming technology, The Small TimeTenna™, named after its creator David Small, is the first system to overcome this multipath interference to enable accurate positioning indoors.
“It’s very hard for a layman to appreciate just how difficult multipath is to overcome,” said Gambale. “In positioning and radio circles it’s regularly called ‘the devil’ because it’s everywhere and impossible to defeat. Most engineers are in awe of David and the Locata team’s accomplishment. In the past few weeks, as we’ve begun to show select groups how it’s done, the accolades flowing to our team have been truly unstinting.”

Professor Chris Rizos, Head of the School of Surveying and Spatial Information Systems, University of New South Wales, and globally respected President of the International Association of Geodesy, recently stated in a blog post: “[Locata’s] antenna is really cool. Grown engineers go weak at the knees and gaze off into the distance when the principles are explained to them.”

The TimeTenna versions Locata is showing at ION are about the size of a soccer ball, and designed for machine automation use. The Locata team is now focused on taking this technology all the way to an iPhone. “If the industry thinks the TimeTenna they’re seeing today is too good to be true, just wait until they see what’s coming next,” added Gambale.

The TimeTenna technology will be unveiled, demonstrated publicly and explained in detail at the GNSS 2011 Conference. Next, Locata will bring to market a commercialized version of the technology through select integration partners.

About Locata
Locata Corporation provides terrestrial positioning networks which function as local ground-based replicas of GPS. The company’s LocataNets work alongside satellite-based GPS systems to improve reliability and expand coverage for modern industrial, commercial, government and consumer applications where GPS is erratic, jammed or unavailable. Partnering with large geo-informatics companies, including Leica Geosystems, the company is pioneering a new level of centimeter-accurate positioning – available anywhere, indoors or out. To learn how Locata can help you deploy a local, ground-based positioning system that complements or replaces GPS, visit www.locatacorp.com

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