

Protecting India's forests and wildlife with u-blox precision satellite location technology

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u-blox M8 GNSS chips provide new Sxtreo T51 PDAs with “tree-level” precision.

u-blox, a global leader in wireless and positioning modules and chips, announced that its advanced navigation and positioning chip is at the heart of a new high-tech initiative that protects forests, wildlife and endangered species, and promotes sustainable resource development.

The Forest Minister of Odisha has unveiled a locally-developed handheld GNSS device, the Sxtreo T51 PDA, based on the u-blox M8 GNSS chip, which will be used by thousands of rangers to protect and manage forest resources. The Indian state of Odisha is larger than most European countries, but 30 percent of its area is forest, including national parks that are home to protected wildlife, tiger reserves and over 100 species of wild orchid.



The T51 was developed by India's Stesalit Systems Ltd., which worked with Swiss-based u-blox to create a unique handheld PDA for the Indian sub-continent, where GNSS can be enhanced by signals from India's own GAGAN (GNSS Aided GEO Augmented Navigation) system to improve standalone accuracy down to the 2-meter range – potentially making a u-blox M8-equipped device precise enough to geotag locations of individual trees and animals.

“u-blox provided the right kind of GNSS chips with the features needed for India,” confirmed Hemant Khemka, Stesalit's Managing Director.

The 72-channel u-blox M8 chip acquires up to three global navigation satellite systems (GNSS): Galileo, BeiDou, and GLONASS, concurrently. This makes it ideal for challenging environments where the sky may be partly obscured by thick forest cover, mountainous terrain, or buildings. In addition, the u-blox M8 GNSS chip is flexible and future-proof, because of accuracy upgrades and support for new positioning systems or augmentation systems, such as GAGAN, can be added via firmware updates – even out in the field.

India's forest rangers and guards will use the rugged T51, which is designed for harsh outdoor conditions, for foot patrol navigation, geospatial validation of forestry accounts, incident reporting, monitoring of poaching and tree-felling, and surveying and demarcation of forest land. The Linux and Android-based T51 provides functions similar to a mobile phone, including communications and a camera, all fully-integrated with the u-blox M8's advanced navigation and location support.

Niyaz Majeed, Business Development Manager at u-blox, said:

“India is seeing major investments in infrastructure. The Government is the largest spender and it is beginning to insist on location-based technology to monitor these projects and its spending.”

The Odisha Forestry Department is already readying its plans to equip 3,000 forestry staff with GNSS PDAs so that field offices and the public can keep updated on their work. The department has targeted delivery of the first 600 u-blox M8-equipped PDAs to forest divisions by early September.