

Cobham SATCOM

Cobham is a leading global technology and service innovator, respected for providing solutions to the most challenging problems.



Cobham SATCOM is engaged in the development, delivery and support of leading-edge aerospace and defence systems in the air, on land and at sea clients and partners trust Cobham SATCOM to deliver the mission-critical technology they need. Cobham SATCOM has recognised that acting responsibly and sustainably creates value for their stakeholders.

Cobham SATCOM's business is split into four business units:

- Cobham Advanced Electronic Solutions
- Aviation Services
- Communications and Connectivity
- Mission Systems

Challenges

Cobham SATCOM was developing a new (D)GNSS receiver for the professional maritime segment with build-in beacon receiver for differential corrections. They needed the possibility to test the (D)GNSS receiver in accordance to the applicable standards for this specific market.

Some of the features required to get through the test successfully are travelling speed up to 70 kn, simulated travel scenarios and the possibility to adjust the number of satellites, power

level, HDOP, RAIM and pseudorange errors. Further a simulator able to simulate GPS, GLONASS and Galileo for a later use with intuitive user interface was essential. Most important for Cobham SATCOM was the option to simulate the differential corrections from a beacon station for both frequencies - GPS and GLONASS.

The Solution

After a global research Cobham SATCOM decided to collaborate with IFEN GmbH, a leading provider of GNSS testing products since 2010, and chose the company's NavX-NCS Essential GNSS Simulator to support their project. The NavX-NCS provides an intuitive user interface, support of radio beacon stations as well as an unbeatable price-performance-ratio – this unique combination was the reason for Cobham SATCOM to choose IFEN simulators vs. others on the market.

Merging their existing equipment with the NavX-NCS Essential GNSS simulator, Cobham SATCOM was able to successfully complete all necessary pre-tests in R&D to prepare their maritime products for type approval.

IFEN has been producing GNSS satellite navigation systems for more than 15 years. Aside from

IFEN's in-depth expertise and track record for delivering reliable GNSS equipment, one of the reasons Cobham SATCOM chose the NavX-NCS was its 'easy-to-use' user interface. Further with the NavX-NCS Essential simulator, Cobham SATCOM is enabled to generate various GNSS signals in the upper L-Band (e.g. GPS, GLONASS, Galileo) and upgrade to a maximum of 42 channels in total by extending the hardware if necessary.

The NavX-NCS Essential GNSS simulator also provides Cobham SATCOM with flexibility for the future. Using IFEN's NavX-NCS simulator, Cobham SATCOM can easily simulate additional satellite navigation system constellations. NavX-NCS only requires a simple software license upgrade to support other GNSS signals, such as Galileo, BeiDou and QZSS.

Cobham SATCOM's overall opinion: "The simulator made us able to do all the tests needed to prepare our products for type approval. So we have been very satisfied with the simulator and the support from IFEN. We always get a quick and precise answer to our questions and we feel that IFEN has been very interested in finding a solution to the very few issues with the simulator."

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