



AIRINS mounted onboard IGN's Beechcraft

AIRINS

AERIAL INERTIAL NAVIGATION SYSTEM

AIRINS delivers faster surveys for France **A complete georeferencing solution for the French national mapping fleet**

iXSea, an iXBlue company, has installed and commissioned complete georeferencing systems for all of the aircraft operated by the Institut Géographique National (IGN), France's national authority for reference geographic information. The project work scope included providing AIRINS inertial navigation systems, a flight management system, an interface with a gyro-stabilized platform, data logging and processing and all equipment installation, cabling and commissioning.

IGN's main objective is to establish and maintain national reference geographic databases. When the organization was seeking to accelerate database production, it selected the AIRINS high-grade IMU/GPS designed by iXSea. The system is based on 0.01°/hr FOG gyroscopes and will integrate with any kind of GPS and any type of camera or lidar. In contrast to most of the other systems currently available, the high-performance inertial sensor in AIRINS virtually eliminates drift during long straight survey legs.

The new system enables IGN to increase the speed of database production without introducing major changes to the existing workflow. The addition of AIRINS enables faster georeferencing of data; IGN will now be able to renew its aerial-photo coverage of the country every three years instead of every five years.

A further benefit for IGN is that having the same equipment configuration in each plane improves operational convenience and interoperability because systems can easily be swapped between planes if needed.

This fast-track project presented many challenges and included non-standard features such as specific interfacing with purpose-built, multi-head cameras designed by IGN and providing a tailored flight management system. These unique features, and the system into which they have been integrated, were validated through a series of test flights over the Paris region.

"This is a significant project with airborne digital cameras and is a milestone for us," said Victor Rumoroso, Project Manager, iXSea. "This experience supplements that which we acquired during several airborne lidar integration projects earlier this year."

About IGN

The Institut Géographique National (IGN) is a governmental agency, which was created in 1940 and is under the authority of the MEDDTL (French Ministry of Ecology, Sustainable Development, Transport and Housing). Its mission is to describe, from a geometric and physical perspective, the surface of the French territory and its land use, to make all appropriate representations thereof and to distribute this information. IGN contributes to land planning, sustainable development, environmental protection, national defense, civil

security and risk prevention, as well as to the promotion and standardization of national and international applications of geographical information. It has successfully managed to adapt to today's major technological advances (moving into the digital era, the development of navigation and imagery satellites and so on). In this way, the agency is strengthening its position as a major player on the Internet in particular by operating the Géoportail, the French internet portal for geographical data. These changing practices are bearing fruit – IGN's e-services and digital products are used as much for professional activities as for leisure pursuits. To learn more about IGN, visit the company's website at www.ign.fr and www.geoportail.fr

About iXBlue

The iXBlue group is built around companies, well known for their continuous innovation. The group provides a range of fine, high technology equipments, systems and turn-key solutions in the areas of navigation and surveillance, underwater positioning and communication, seabed imaging and surveying. iXBlue is able to combine its unique technologies, products, systems and services from across its subsidiaries to provide the kind of solutions that cannot be found anywhere else in the industry. In 2010, iXBlue counts 500 employees for a turnover of 95 M€.

To learn more about about iXBlue, visit the company's website at www.ixblue.com

About iXSea

Formed in 2000, iXSea designs and manufactures navigation and positioning systems based on its state-of-the-art Fibre Optic Gyroscope technology, along with a complete range of mapping systems, software suite and acoustic releases for the scientific, civil engineering, offshore and defense industries. Solutions are designed for sea, land and air applications.

To learn more about about iXSea, visit the company's website at www.ixsea.com