



Serge Bitboul
Founder and CEO
Geci International

The GEI Aviation strategy is clear: to be counted among the major players in the global aerospace industry. It is an ambition reflected in the next Skylander development project, an innovative and unique twin turboprop aircraft capable of operating in remote areas, on short and basic runways, and on behalf of government or civilian missions. To achieve its vision, GEI Aviation chose the Dassault Systèmes PLM platform, which integrates and manages data at key stages of the aircraft lifecycle, including design, manufacture and maintenance.



The Skylander: A plane for 4/5th of the globe

By Corinne Hirzel



Serge Bitboul, founder and CEO of GECI International, describes himself as “passionate about airplanes and driven by the desire to create a new product that is both attractive and useful. I wanted the Skylander to meet global market demand currently unsatisfied by existing aircraft. Our studies have demonstrated the existence of a new growth area, and our group teams have been working for several years to make this concept a reality.”

meets the demands of four fifths operators worldwide – areas largely unserved by traditional craft – providing operators with a powerful aircraft capable of operating in extreme altitudes, temperatures and landing conditions.

To achieve this, Bitboul has assembled an experienced multicultural team and equipped them with robust Dassault Systèmes Product Lifecycle Management (PLM) solutions to optimize costs, time and quality of production. “Our expertise in aeronautical engineering, built up over 30 years of working with major clients, gives us undeniable credibility in our areas of expertise,” he says.

MEETING 80% OF THE WORLD DEMAND

Skylander SK-105, developed by GECI Aviation subsidiary Sky Aircraft, is a new twin turboprop aircraft concept designed to operate in hostile and extreme environments on a variety of missions: passenger and cargo transportation, medical evacuation, maritime surveillance, humanitarian and medical. Reflecting its slogan – Born to be free – the Skylander has been designed to be versatile, economical, lightweight, rugged and powerful. Able to carry 19 passengers or 2.7 tons of cargo,

it is intended to set a new standard for payload, range and versatility.

“The Skylander is a multi-mission plane of entirely new design able to operate in remote and inaccessible areas,” Bitboul says. “By 2030, its outstanding performance will have opened up a market for 1,500 aircrafts in its various versions, for international-level civil and government operators alike.” Bitboul’s goal is to develop and bring on the market an aircraft that

Technical Director for the program at GECI. “CATIA and ENOVIA are the most advanced tools in the aviation industry for the identification, investigation and control of the multiple iterations required for the aircraft to reach maturity.

“The solution manages the development of more than 4,000 design items, from draft to manufacturing stages. The digital model then becomes the main tool in implementing the industrialization process of the mechanical packages and systems to be produced. A common language selected by GECI Aviation is used and shared with key partners to produce the structural packages and major systems, including avionics, electrical and landing gear

To date, the design phase of the unit is complete and construction of ground and in-flight test aircraft has begun. Select industrial partners deliver their packages to Sky Aircraft for final assembly at the Chambley site. “We are approaching the construction phase and need to coordinate our actions for the final assembly and certification of aircraft components,” Bitboul says. “This implies a significant increase in communication with our various subcontractors and suppliers. For us, PLM solutions are a real catalyst for innovation and transformation. They provide a structured and coherent methodology for our ecosystem.”

THE BIRTH OF A NEW AIRCRAFT MANUFACTURER

The Skylander adventure is only just beginning. Sky Aircraft is preparing to produce nine aircraft per month. “The sales portfolio of the SK-105 includes nearly 570 aircrafts, including 14 formal agreements,” Bitboul says. “We have changed strategy at GECI International, going beyond our engineering services role to that of an aircraft manufacturer with a range of machines including Skylander.”

The F406, produced by Reims Industry, was acquired by GECI International in 2008. The F406 is particularly well-suited for surveillance missions, and the No. 97, equipped with mapping systems, made its first flight on March 14, 2011 and was delivered to Tunisian OTC on April 19, 2011.

“Capitalizing on our aeronautics expertise and PLM tools has helped us facilitate the transition to the industrial development stage, mastering all the essential tools from the supply chain to manufacturing and operational support,” Bitboul says.

The Skylander, “born to be free,” is designed to operate without the support of heavy airport infrastructure. It highlights the expertise of the French aerospace industry and aims at meeting economic, social and sustainable challenges in the 21st century, helping to make air transport a reality for the entire globe.

GECI International

The GECI International Group is active in two sectors. GECI Engineering, the heart of the business group, has acquired international technological expertise in the field of systems integration and project management for major industrial players. 80% of GECI Engineering’s activities are dedicated to aerospace industry. GECI Aviation develops innovative solutions for the global market for regional air transport of passengers and cargo. In 2008, the teams at Sky Aircraft, a group subsidiary, moved to a 22-hectare former NATO air base in Chambley, Lorraine, France, to develop the Skylander programme. The company now employs 200 people from 15 different nationalities who, under the leadership of experienced aviation industry professionals, are using PLM solutions to optimize the Skylander production process.

For more information:
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