



## The Value of the Right Connections: Thrush Aircraft

### OVERVIEW

Thrush Aircraft, Inc.—based in Albany, GA—is the world leader in providing aircraft for agricultural spray operations. Their exceptional line of aircraft helps operations of all sizes control insects, weeds and diseases that threaten crops and orchards. In addition, Thrush Aircraft is depended upon for fire control—dispersing fire retardant chemicals and water to save human and animal life, and preventing the loss of property and forestry.

The use of crop dusting aircraft began in the 1920s, and over the years, the agribusiness world has seen technology evolve in order to maximize agricultural operations and increase efficiency. Thrush Aircraft, Inc. stays on top of these industry trends and pioneers the innovation and manufacturing of first-class aircraft to compete in the global market.

### CHALLENGE

When Thrush Aircraft, Inc. decided to expand its models to include a plane that could carry its own weight in load, they needed to find a more powerful engine to include in the new model.

Once a new engine was selected, Thrush would then need to certify the vehicle through flight testing, as required for all new aircraft by the Federal Aviation Administration (FAA). Faced with these two challenges, Thrush turned to the Center of Innovation for Aerospace for assistance.

### SOLUTION

Under the umbrella of the Georgia Department of Economic Development, the Center of Innovation for Aerospace provided deep technical expertise, connections and innovative solutions to help Thrush Aircraft, Inc. reach these goals. Most importantly, the Center was able to bring together the right combination of business, academic and government resources to ensure that Thrush Aircraft could make the connections needed to become a leader in this market.

### Company:

Thrush Aircraft

### Facility Type:

Aircraft manufacturing

### Number of Jobs Added:

40 new jobs

### Significant connections for the project include:

- Contract with GE Aviation for the outfitting of the H-80 engine on the 510G model.
- Flight-testing partnership with Middle Georgia State College.
- Access to the FAA Certification flight-testing equipment.
- A OneGeorgia grant that purchased the flight-testing software.
- Workforce recruiting
- International and in-state contacts

### Economic Impact for Georgia:

- Added 40 jobs for Thrush Aircraft, Inc. and \$1 million in payroll.
- The first implementation of the H-80 engine on an aircraft, combined with strong agribusiness, aerospace and manufacturing industries, allow Georgia to be a world leader in pioneering new innovative aircraft.
- The sale of these aircraft helped increase international exports for the state. Aerospace products were the number one international export from Georgia in 2013 at \$7.8 billion.



Executives from the Center introduced Thrush to the right engine partner needed to successfully produce the improved aircraft. With the partnership in place, the Center then provided Middle Georgia State College matching funds for the flight-testing research through a Center of Innovation grant.

## RESULTS

The Center of Innovation for Aerospace capitalized on the industry expertise and relationships it already had in place and put Thrush Aircraft in contact with GE Aviation. GE had recently acquired an aircraft engine company that built the type of engine Thrush Aircraft would need for its new plane. This led to a partnership and contract with GE and ultimately to Thrush Aircraft producing the 510G model, the first plane worldwide to be outfitted with GE's new H-80 turbine engine.

Following the successful implementation of the new engine, the Center connected Thrush Aircraft to Middle Georgia State College (MGSC) to assist in the necessary flight testing of the new model. Through a Center of Innovation grant, MGSC purchased specialized test equipment needed for the flight-test program. This partnership between MGSC and Thrush provided 'real-world' flight-testing experience for the MGSC staff and students, along with equipment to support future joint MGSC/industry flight research programs.

Overall, the new 510G brought 40 new jobs and nearly \$1 million in additional payroll to Thrush Aircraft, Inc. and increased their sales by more than 40 percent.

What the Centers of Innovation offer the agribusiness, aerospace and manufacturing industries:

- Industry experienced staff that provides expertise, and connects businesses to new technologies, research, business partners and industry trends.
- Collaboration of leaders from academia, business and government.

“[The Center] facilitated the conversations, got us a contact inside GE, which ultimately led to our contract and to the Thrush Aircraft being the first plane worldwide to be certified with the new H-80 engine.”

- Payne Hughes, President, Thrush Aircraft, Inc.



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