

Students take flight in Dominican science class

By Kim Roberts
Clarion Herald

Students in Crissy Giacona's eighth-grade physical science honors class at St. Mary's Dominican High School are learning that the sky's the limit as they embark on in-class flying lessons with the school's newly acquired flight simulator.

As an Aerospace Education Member (AEM) of the Civil Air Patrol (CAP), Giacona had been working on getting a flight simulator, valued at \$600, donated through the organization's STEM program for the past four years. She just needed to find a computer on campus that could support the simulator equipment.

She found it right in front of her nose: After checking with Dominican's IT manager Louis Negrotto, Giacona discovered that a computer attached to the 3-D printer in the school's robotics lab was capable of handling the flight simulator's requirements.

Helpful teaching tool

Giacona said the flight simulator is especially useful when she is teaching students about the dynamics of drag and thrust in relation to flying. Now, the students can get a real understanding of what goes into making a plane fly.



Photo | COURTESY DOMINICAN HIGH SCHOOL

In his presentation to Dominican students, Lt. Col. Floyd Miles of the Civil Air Patrol covered the history and mechanics of flying and incorporated the school's recently acquired flight simulator.

Giacona asked Lt. Col. Floyd Miles, a pilot with the CAP, to present an overview of how to fly, how the controls on the flight simulator work and discuss the different forces that are involved in flying.

"Using the flight simulator in the classroom has enhanced our students' understanding of how engineering, science,

physics and math are necessary in order for a plane to fly," Giacona said.

For more than 80 years, the CAP has been a champion of aerospace education across the nation. It is the official volunteer auxiliary of the U.S. Air Force and assists with search and rescue.

For a \$35 membership fee, the Aerospace Education Members of CAP have access to free aerospace/STEM educational opportunities ranging from a variety of K-12 curriculum materials and STEM kits to participating in a teacher orientation flight aboard one of their Cessna airplanes at a local airport.

The unique membership category is designed for formal or informal educators involved in promoting aerospace/STEM education in classrooms, home schools, museums, libraries or other youth organizations.

"Being an AEM has allowed me to not only bring a flight simulator into the classroom for the girls to use, but I also was able to go up in a plane

myself and bring that experience to the classroom," Giacona said. "That experience really helped me understand flight better and have the ability to educate my students on another level."

She said the students have been enjoying the opportunity to see what it's like to fly a plane themselves. It's special since this is an eighth-grade class, and most of these girls don't have a license to drive a car yet.

Like real-life flying

"The simulator is very realistic," Giacona said. "The girls feel like they are flying a plane. It consists of a yoke and paddles, and a laptop sits on top of it, so it feels like you're in an airplane. Some of the students were like, 'I never thought that I'd like this.' But maybe it's opening up some career opportunities that they're considering now that they weren't before this class."

Giacona said one of the cool things about the flight simulator is that it can replicate what

it feels like to fly over any area in the world. Currently, the simulator is set to fly over New Orleans and fly over the lake, taking off and landing at New Orleans Lakefront Airport.

"The flight simulator helped when we learned about forces in fluids because it gave me a way to visualize what we were learning about," said eighth-grader Charlotte Burke. "It's also fun to experiment with and adds a fun element to class."

Giacona hopes other physical science teachers at the school will utilize the simulator in their lessons as well, which is why she made sure it was mobile and could be easily rolled from one classroom to the next.

"So far, this has been an amazing experience for the girls," she said. "They have experienced what it feels like to be at the controls of a plane, and whenever they have free time, they are in the classroom wanting to use the simulator."

kr Roberts@clarionherald.org

Mule's Religious Books & Gifts, Inc.

First Communion and Confirmation Gifts

M-F 9 - 5
Sat 9 - 4

2627 David Drive
Metairie, LA 70003

504-889-1708
(Since 1973)

Email: mulesreligious@att.net


