

# HORIZONS

Views and Perspectives from  
WEST MICHIGAN  
AVIATION ACADEMY

Summer 2018

## Meet One of Our “Leading Students”

We think it’s important to cultivate leadership skills in our students, and Nick Katerberg is a great example.

Nick hopes to translate his childhood love of planes into a career as an aviation mechanic. “I used to build planes out of Legos, and watch every plane that came over our house on final approach to Grand Rapids airport,” he says.



Nick Katerberg sets a high bar for leadership and compassion.

Nick’s “final exam” in last fall’s Leadership class required students to implement a community service project. Nick knew exactly what he wanted to do. “I heard a powerful speaker at the Hand2Hand dinner last fall,” Nick says. “He talked about a principal who found students foraging in the dumpsters on a snow day because they didn’t have a food source outside of school lunches. That really hit me. I knew I probably had some classmates that were hungry, and I wanted to help feed them.”

Hand2Hand focuses on providing weekend food for kids through church-school partnerships. The church buys supplies, and the volunteers assemble nonperishable food kits. Kids can pick up a kit on Friday that will help feed them over the weekend when they are not eating school meals.

This project required a lot of coordination and some thoughtful implementation. Nick talked to the school administration and received their support. He formed a partnership with Fair Haven Ministries and Thornapple Community Church. Then he worked with the staff to invite qualifying students, and he set up a discreet pantry in an accessible spot within the school. “Kids are in and out of here all the time,” he says. “They can put food in their backpacks privately. I wanted this to be about feeding kids, not embarrassing them.”

“Approximately one in four of our students qualifies for free or reduced lunch,” says Jaclyn Iacco, Dean of Student Services. “Based on our best estimates, we probably have about 50 students who could self-identify for this program.”

The program kicked off on April 20, and Nick was responsible for managing it until the end of the semester. He also was responsible for finding someone to take his place so the program could go on after his graduation.

Leaders take on difficult challenges and stick with them. We’re proud of Nick’s personal commitment to others and his demonstrated leadership skills. They will take him far in life and in his career!

“I wanted this to be about feeding kids, not embarrassing them.”

Nick Katerberg



“For someone with a computer science degree, the question is not ‘Will I get a job?’ Instead, the question is, ‘Which job do I want and where do I want to live?’”

Brandon Paradis, Computer Science teacher

## The Most Essential 21st Century Skill

What do a 3D artist, a help desk tech, an animated filmmaker and a game designer all have in common?

Surprisingly enough, the answer is computer science. Unfortunately, the computer science talent pipeline is frighteningly empty. There are more than 500,000 unfilled computing jobs in the United States, despite the fact that the average developer makes \$102,000 per year. We are so far behind as a country that it’s difficult to even find a qualified teacher in this subject!

The problem starts in high school, where students begin exploring career options. Only 25 percent of United States high schools teach any kind of computer science. Only five percent of them offer an AP computer science course. If kids don’t have a chance to try out computer science in high school, they’re probably not going to invest in a college-level course to learn about it.

In this, as in so many other areas, West Michigan Aviation Academy is a leader. Teacher Brandon Paradis offers students a one-semester introduction to computer science, and two year-long AP courses. “Computer science is about creative problem solving,” he notes. “Any kind of engineer needs some level of computer science knowledge. So does anyone in gaming, animation, social media and more. For someone with a computer science degree, the question is not ‘Will I get a job?’ Instead, the question is, ‘Which job do I want and where do I want to live?’”

WMAA prepares students for success. “Students who successfully complete our AP courses are learning first-year college material,” Brandon says. “If they succeed here, they have a huge advantage over their college peers. I have had

several students completely change their life plans because they discovered an aptitude and love for computer science.”



Scan this QR code to play Ben’s game!

Student Ben McCallum has taken all of the computer science classes. He is what you might call “extremely fluent,” given that he can program in five different languages! “Programming is the ultimate puzzle,” Ben says. “There’s no single solution, just a problem to be solved. While code can be frustrating, at the end of the debugging process there’s a sense of satisfaction that is hard to beat.” Ben created a card matching game as his final project this year. You can check out his work by scanning the QR code on the left.

Brandon leverages resources from around the country to help WMAA students gain an advantage. “We have had speakers from Spectrum Health, Kawasaki, Cascade Engineering and more come in to talk with our kids about career opportunities,” he says. “We also had a relationship with Microsoft, in which they provided volunteers from the industry to come in and help teach. We even have remote Teaching Assistants for our more advanced students. They can open up a Google Hangouts chat and get assistance from teaching assistants there as well.”

Computer science is an essential 21st century skill, and WMAA students have a solid set of classes to explore and embrace as part of their career planning.

## Come See What Your Support Can Do!

Want to learn more about how your support can help our students? Join us for a Soaring Together tour. Please contact Kelsea Wierenga at least one week in advance to reserve your spot. All tours begin at 8:30am and last for one hour.

### Upcoming Tour Dates

**September 6 & 25**

**October 4 & 23**

**November 1**

**January 29**

**February 5 & 26**



WEST MICHIGAN  
AVIATION ACADEMY



WMAA is the only high school in the nation where a student can earn a private pilot license as part of the high school curriculum.

## Celebrating Eight Years of Aviation Education

You may not have thought about this, but the future of the aviation/aerospace industry hinges on having qualified talent. According to leading experts, the commercial pilot shortage in the United States will reach 15,000 in just eight years (2026). The worldwide demand for new pilots will exceed 637,000 by 2036, with corresponding demand for certified aviation maintenance technicians. These shortages are compounded by several factors, including global economic expansion, pending retirements, and a lack of qualified replacements. These shortages will impact the U.S. economy unless more young people are inspired to pursue careers in aviation/aerospace.

Similarly, aerospace companies are experiencing a shortage in skilled trade positions and engineering. The aerospace industry offers careers with high demand, stability, and excellent long-term earning potential. It also poses a strategic opportunity for partnerships between education and business. This is especially true with corporations that are seeking to fill their prospective aerospace employee pipeline.

WMAA is the only high school in the nation where a student can earn a private pilot license as part of the high school curriculum. Sixty-two students achieved this goal from 2013–2018. We’ve experienced rapid growth, as you can see from the chart. We enroll approximately 55 students

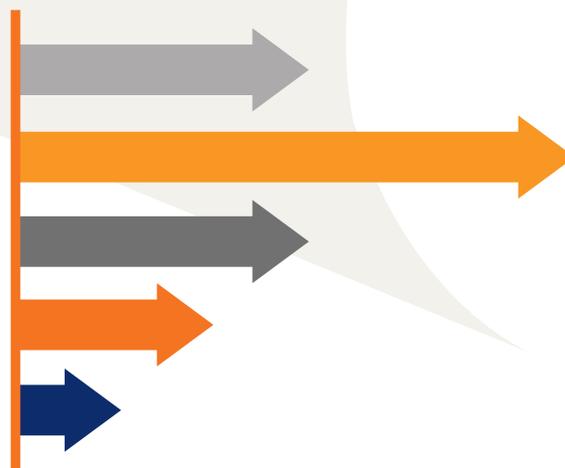
in ground school annually. From past experience, we know that this will yield approximately 20–25 students pursuing a private pilot license each year.

This growth, while fantastic, creates some challenges. We can reasonably instruct approximately 14 students with two planes. The philosophy has always been that if a student passes the medical and written exams, and has the money for flight hours and written tests, they can pursue their license. In order to maintain that inclusive policy, the school will need to have a third plane and more hangar space. We also need to find more room for our robotics teams, and the excellent engineering programs that continue to attract more than two-thirds of our students each year. We are beginning to evaluate a capital campaign that would help us address these opportunities.

No one else in the country is doing what we are doing. We are forging strong partnerships between education and industry. We are filling crucial and documented professional shortages with qualified and passionate graduates. We are opening undreamed-of doors to students whose only opportunity to soar is in this place, in our programs. We are leading the way, not only in Michigan but also in the United States, through our innovative programs and open access for all students.

### WMAA Graduates Earning a Private Pilot License

<b>2018</b>		14 Pilots
<b>2017</b>		21 Pilots
<b>2016</b>		15 Pilots
<b>2015</b>		9 Pilots
<b>2014</b>		3 Pilots



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WEST MICHIGAN  
AVIATION ACADEMY

Development Office  
5363 44th St SE  
Grand Rapids MI 49512

## Soaring Together

This school creates amazing and unparalleled opportunities for students. The per-pupil allotment we receive from the State as a charter school is not nearly enough to cover the true cost of our programs. Donors like you make it possible to provide the exposure and experiences that produce thriving, well-prepared high school graduates each year. We invite you to get on board with us by committing to an annual gift. Learn more by contacting us, or check out the Development Office online.

### Community Partners

Bigby Coffee (2700 Kraft Avenue)  
IT Partners (3070 Broadmoor Avenue)  
Marco New American Bistro (884 Forest Hill Ave SE)  
Bluewater Technology (4245 44th Street)

## Broadening Horizons Breakfast



WEST MICHIGAN  
AVIATION ACADEMY

**Save the Date:**

**September 20, 2018**

Contact Meggan George for  
sponsorship or table information.

### Development Office Contact Information

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## How You Helped Us Soar



### Silent Auction's Generous Sponsors

We are grateful for the generosity of our Silent Auction's sponsors. Their gifts provide our students with exciting experiences throughout the year.

**Greg and Claudia Evans**  
**Dick DeVos**  
**Patty Wagstaff**  
**Louis C. and Christine Seno**  
**WACO Aircraft**  
**Patrick J. Cwayna, Sr.**  
**Thousand Oaks Golf Course**  
**Aviation Staff at WMAA**  
**Benz Aviation**  
**Muncie Aviation Company**



Proceeds from prior Galas have funded a variety of special opportunities for our students. These were activities which our general budget based on per pupil funding from the State would not have been able to cover. This is what has allowed WMAA to be such a unique school!

#### 2017

- 48 Student Summer Incentive Flights
- 17 Aviation Competitive Excellence (ACE) Award Incentive Flights
- 836 Flight Hours
- 465 Redbird Simulation Hours
- 21 Private Pilot Graduates / Cumulative total of 36 since inception
- 5 Glider Camp Solo Pilots / Cumulative total of 51 since inception
- 6 Students participated in the National Flight Academy in Pensacola, FL – Summer Camp
- Wildcat Restoration Project at the Kalamazoo Air Zoo
- Michigan Capitol Fly Over
- Support for Engineering and Robotics Programs

#### 2016

- 54 Student Summer Incentive Flights
- 30 Aviation Competitive Excellence (ACE) Award Incentive Flights
- 513 Student Training Flights
- 887 Flight Hours
- 561 Redbird Simulation Hours
- 15 Private Pilot Graduates / Cumulative total of 27 since inception
- 10 Glider Camp Solo Pilots / Cumulative total of 46 since inception
- 4 Students participated in the National Flight Academy in Pensacola, FL – Summer Camp
- Lynx NGT-9000 ADB and AOA Aircraft Upgrades provided by L3 Communications and Mayday Avionics
- Wildcat Restoration Project at the Kalamazoo Air Zoo
- Delta Air Lines Field Trip to Detroit Metro
- American Airlines Field Trip to Chicago O'Hare
- Air National Guard Field Trip to Battle Creek, MI
- Remote Control Demonstration Team Performance at VanAndel Arena for Griffins Hockey Team
- Support for Engineering and Robotics Programs

#### 2015

- 70 Student Summer Incentive Flights
- 36 Aviation Competitive Excellence (ACE) Award Incentive Flights
- 488 Student Training Flights, 645 Flight Hours
- 470 Redbird Simulation Hours
- 9 Private Pilot Graduates / Cumulative total of 12 since inception
- 9 Glider Camp Solo Pilots / Cumulative total 36 of since inception
- Capstone field trips to Kalamazoo Air Zoo for 9th grade, Henry Ford Museum in Dearborn for 10th grade, and to Wright-Patterson Air Museum in Dayton, Ohio for 11th grade
- Summer New Student Orientation
- Support for Engineering and Robotics Programs



# Taking Flight With Our Sponsors

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The Edgar and Elsa Prince Foundation

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Extended University Programs

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## Gala Planning Committee

Rick Fiddler, Chairman  
Dick DeVos  
Robin Koop  
Pat Cwayna  
Larry Fisher  
Meggan George  
Kelsea Wierenga  
Betsy Pott  
Tom Meier

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