National Aeronautics and Space Administration

RED JENSEN

Master UAS Technician

Lexile Ranges
Level 1: Less than 810
Level 2: 810-1000L
Level 3: 1010-1200L
Level 4: 1210-1400L

Level
3

FLIGHT LOG
ENDORSEMENT
CODE:
LRREDJN

Educational Product

Educators & Students | Lexile Level: 1010-1200L

Robert "Red" Jensen is a NASA researcher who does a little bit of everything.

Officially, Red is the Master UAS Technician for NASA's Armstrong Flight Research Center in California. UAS is short for Unmanned Aerial Systems, which the public calls drones. Red helps NASA learn all it can about operating drones.

Red's "office" is the Armstrong Model Lab. Just outside the Model Lab is Rogers Dry Lakebed, where some of the most important aircraft in aviation flew. That includes airplanes like the X-1, which was the first plane to fly faster than the speed of sound. Many Space Shuttle missions landed there too.

Inside Red's workshop you will hear 3D printers buzzing in one corner, and see shelves full of small drones from past and current projects packing the walls. The shelves also are filled with aircraft parts and raw materials that can be used to build new models.

Other members of Red's team also work there. It's the kind of place that when you walk inside,

the excitement in the room can't help but inspire you to look for an available screwdriver, strap on a pair of safety glasses, and join in by getting busy with some hands-on work.

You might think that a guy like Red, who is responsible for so much, and who works with cutting-edge aviation flight test programs for NASA, spent years in school earning advanced degrees while writing papers for the most prestigious colleges in the nation.

You would be wrong.

It's an important truth about life: Not everyone realizes their dream job by taking the same path. Yes, many who work for NASA do follow the more typical route of high school and college. For most, that kind of formal schooling is the best way to train for careers in science, technology, engineering or math.

Others might graduate from high school and decide to skip college while they spend a few years working before figuring out what career path they want to take and how best to do it. For Red, it was a case of following his own unique

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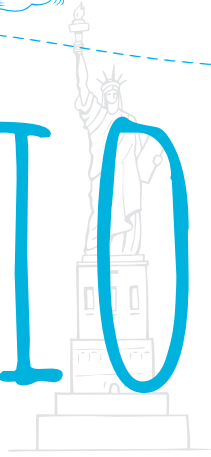
journey, bypassing the traditional college-to-career track, but never straying far from his love of flight that started at a young age when he flew model airplanes.

Red was always interested in building things and figuring out how things worked. Like many young people with those interests, he saw himself as growing up to become an engineer. That made the most sense to him. But after getting accepted into an intern program, he found that a formal engineering program just wasn't for him. He needed to find a different way to get involved with aviation.

Meanwhile, there still were bills to pay, so Red took jobs where he could find them. At one point, he swept floors in an auto body shop, then began training in an auto paint shop. With a good eye for detail, and relying on what he had learned about painting radio controlled (RC) airplanes, he soon became an expert at custom paint jobs on cars, and in working with special paints.

At the same time, he kept up with his hobby of flying RC planes, an interest that often brought him to his local model shop to buy parts and other supplies. Red soon established himself there as a loyal customer. He often struck up enthusiastic conversations with the model shop's owner. The two became such good friends that when the elder owner decided to retire, he offered Red the chance to buy the model shop – which Red did!

Running a small business, even one as dear to him as a model shop, wasn't exactly a role – or a career – Red had envisioned himself doing, but it was a chance for him to chase a new direction for his life. With some money coming in, and not being one to sit still for too long, Red went through pilot training and earned his private pilot's license.

At the same time, he started to work as a test pilot for a company that built drones, and wound up working there ten years while he also continued to own and manage his model shop. As a drone test pilot, his position sometimes required him to fly vehicles at Armstrong, which allowed him to get to know the people there – and for the people there to get to know him. His expert model making skills soon became obvious to everyone. So, when an opportunity

to join the NASA team and get paid to do the very thing he loved most came along, he applied for the job and won it.

Today, Red oversees many different projects in the Model Shop at Armstrong. He also manages the technicians and student interns who work there. They have never been busier.

With millions of drones offered as holiday presents each year, and major companies wanting to deploy their own fleets of drones for jobs such as package delivery, new designs must be designed and tested. The drones needed to support that research often falls to Red and his team at Armstrong to build.

At any given time, there are about 20 different aircraft in the Model Lab. Some are so small you can hold them with one hand, while the largest can weigh more than 200 pounds and have wing spans more than 20 feet long. Some are small scale models of proposed aircraft designs that aren't ready yet to be built full size. Test flying these smaller scale models is less expensive than building a full-sized airplane, which may or may not have some new design features that engineers are not ready to risk flying with a pilot on board until they prove it's safe.

All of this activity means it is an exciting time for anyone interested in aviation, and Red is thrilled to be a part of it. He counts himself lucky that his education and career choices gave him the hands-on skills, experience and opportunity he needed to land his dream job at NASA's premier flight test center.

Educators!
Guide/assessment files
for this reader are at
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