

2021 WSGC AEROSPACE INDUSTRY PROGRAM

Associate Director Report, Dr. Robert Morrow

Note: Sierra Nevada Corporation has spun off their Space Systems Group as a new company called “Sierra Space”. Sierra Space in Wisconsin is comprised of two discipline groups, Rocket Engines & Propulsion, and Environmental Systems.

Industrial Internships and NASA Internships for 2021 are provided in the table below:

Award Date	Program Year	Award #	Title	Last Name	First Name	Institution	Project Title	Notes
January 1, 2021	IIP21	1.0	Dr.	Treichel	Todd	Sierra Nevada Corporation	Project #A10320: WSGC Industry Internships	WSGC 2021 Interns: -Noah Anderson, Environmental Systems -Melanie Solomon, Environmental Systems -Meagan Carney, Environmental Systems
May 10, 2021	NIP21	1.0		Rorabeck	Casey	University of Wisconsin-Madison	Ames Research Center Virtual Summer 2021 Aeromechanics Internship Program	
May 10, 2021	NIP21	2.0		Schneider	Nicholas	University of Wisconsin-Madison	Goddard Space Flight Center Virtual Summer 2021 Stratospheric Ballooning for Astrophysics Internship Program	
May 24, 2021	NIP21	3.0		Jackson	Payton	University of Wisconsin-Madison	Goddard Space Flight Center Virtual Summer 2021 RST Spacecraft Thermal Design Internship Program	

This year Sierra Space supported three interns from WSGC affiliate organizations with WSGC IIP award funds. Additional interns from WSGC affiliate schools were also supported in 2021 as shown in the table below.

Last Name	First Name	Job Profile Name	Cost Center	Fields of Study
Keip	Jacob	Engineering Aide	ENV SYSTEMS	Astronautical Engineering
Sterns	Morgan	Engineering Aide	ENV SYSTEMS	Engineering Mechanics
Kimball	Zachary	Engineering Aide	PROPULSION	Aerospace Engineering
Rorabeck	Casey	Engineering Aide	ENV SYSTEMS	Aerospace Engineering

Two of these interns, Zach Kimball and Morgan Sterns, have been brought on by Sierra Space as full-time employees. All Sierra Space internship and co-op open opportunities are listed on the Sierra Space website (<https://sierraspace.com/careers/>), with the positions usually identified as “Engineering Aide”. These opportunities are generally supported during Spring and Fall academic sessions.

Internships continue to be an issue during COVID as onsite/hands-on project opportunities are more limited due to many staff working remotely. Design and analysis work can be done remotely, with time on-site as needed. However, this has adversely impacted the mentorship dynamic with interns due to reduced face-to-face interaction with engineering mentors. This issue has started to ease as more employees return to work on-site.

I have begun participating in the *Wis AERO (Aviation Resources & Opportunities)* group that was established in late 2019 (and is advisory to the Wisconsin Department of Transportation, Bureau of Aeronautics) as a mechanism to identify possible ways to increase industry participation in supporting Wisconsin aviation and aerospace opportunities.

We continue to explore a range of disciplines for internship opportunities, including areas like quality and industrial engineering, logistics, skilled technical labor, and technical writing in addition to traditional electrical and mechanical engineering. A mechanism to increase internship opportunities for all UW system schools is being explored with Sierra Space talent acquisition (Dr. Todd Treichel will discuss at this year’s conference). Also, I am interested in hearing from other industry members about how to increase interest and broaden participation in providing internship opportunities.