

# SAC

# NOTAM

THE OFFICIAL STUDENT PUBLICATION OF THE JOHN D.  
ODEGARD SCHOOL OF AEROSPACE SCIENCES

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**President** Arjun Jagada

**Vice President** Julianne Lore

**Secretary** Josh Salmi

**Treasurer** Aidan Lally

**Direction of Technology** Mateo Garcia

**Director of Student Outreach** Kal Wachi

**Director of Public Relations** Julia Raker

**Director of Industry Relations** Carson Calhoun



The Student Aerospace Advisory Council was founded in 1974 by the school's namesake, John D. Odegard. Its goal is to facilitate the communication of new ideas, questions, and concerns among the faculty, students, and administration of the Aerospace College at the University of North Dakota.

The student-led council collaborates closely with the Dean of Aerospace to drive its dual-fold mission. SAAC channels student suggestions into actionable projects that enhance the collegiate experience while also serving as a conduit, translating faculty and administrative policies for the student body. Both work to increase the quality of life for aerospace students.

As a UND Aerospace student, your insight is invaluable. If you have concerns going through the program or suggestions to improve the lives of your peers, SAAC would be honored to act on your feedback. Your words possess the potential to shape the trajectory of the John D. Odegard School of Aerospace Sciences for years to come.

## FALL 2023 MEMBERS

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Arjun Jagada

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# Weather Modification

by David Delene, PhD | ATSC Research Professor



## Did you know that there are careers for pilots and meteorologists in the field of weather modification?

Weather modification refers to the deliberate alteration of atmospheric conditions to achieve a desired effect such as suppressing hail formation or increasing precipitation. There are careers working for private companies that provides weather modification services. Such services provide opportunities for pilots, technicians, and meteorologists to participate in cloud seeding projects. Additionally, government agencies and research institutions conduct weather modification experiments that employs meteorologists and pilots to fly research aircraft into convective storms, hurricanes, and snow storms.

If you are interested in pursuing a career in weather modification, you need a background in aviation and meteorology that includes understanding the physics and mathematics of

weather modification methods. Weather modification is a complex and interdisciplinary field that requires working with diverse teams. For students interested in learning more, the John D. Odegard School of Aerospace Sciences offers a spring semester course, AtSc252 – Applied Weather Modification. AtSc252 provides the foundation for students to apply for co-pilot internships funded by the North Dakota Atmospheric Resource Board. The University of North Dakota (UND) has a formal memorandum of understanding (MOU) in place where by 5-10 co-pilot interns work on the North Dakota Cloud Modification Project (NDCMP) each summer. Additionally, UND students have the opportunity to be project meteorological interns each year. While the meteorological interns are not exclusive to UND like the co-pilot interns, many non-UND



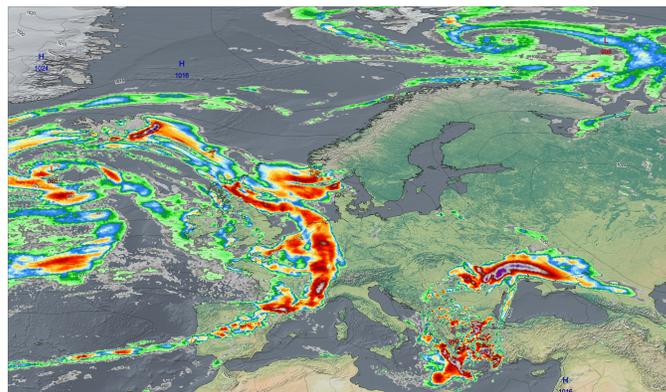
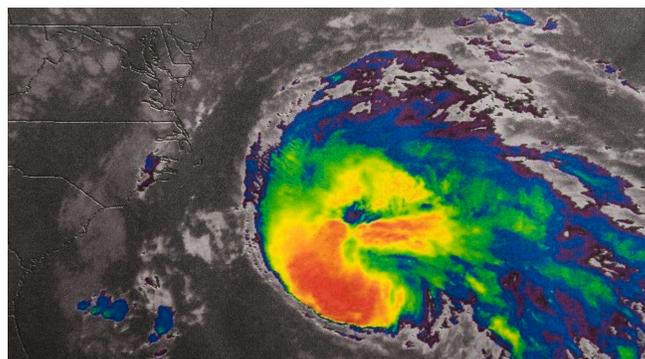
## Weather Modification (cont.)

meteorological interns learned about UND's Graduate School because of the program. The UND co-pilot internship program has a long history, which started with a National Science Foundation grant in 1973. Since then, more than 400 UND student pilots have participated in the internship program.

UND has a long history of weather modification and cloud physics, which “took off” in 1974 when the school acquired its first weather radar. Recently, Dr. David Delene and Dr. Andrea Neumann-Skow, along with former NDCMP intern and current Maser of Science (MS) Graduate Student Lynnlee Rosolino, participated in the second Saudi Aerosol-Cloud-Precipitation Enhancement Campaign (SARPEC) field project. The SARPEC field project was based out of the Thumamah, Saudi Arabia airport (OETH) and conducted between October 18 and November 25, 2023. The field project obtained observations on 21 research flights that are useful for determining the effectiveness of operational cloud seeding techniques for rainfall augmentation within the arid climates of the Kingdom of Saudi Arabia. Cloud penetrations were conducted at various levels (-10 °C, -15 °C, -20 °C)

above cloud base to determine how liquid water content properties vary with vertical development and to observe the effects of ice crystal aggregation processes. The cloud penetrations focused on the developing regions of convective storms and obtain measurements in updraft of up to 2,000 ft/min.

If you are interested weather modification operations or research, you may want to consider the AtSC 252 class. Information about previous classes is available at the class website, see for example, [http://aerosol.atmos.und.edu/AtSc252\\_Spring2023/index.html](http://aerosol.atmos.und.edu/AtSc252_Spring2023/index.html). Please contact David Delene if you would like more information about careers in Weather Modification or the AtSC 252



# Girls in Aviation Day

by Julianne Lore | UND WAI Vice President

## On September 23rd, 2023, Women in Aviation International hosted their 9th annual Girls in Aviation Day (GIAD).

Thousands of young girls around the world were able to experience this astonishing event that inspires dreams of a future aviation career. The free event for youth to learn about aviation opportunities was hosted by WAI chapters and Corporate members. This year was especially unique for UND's chapter, as members were in attendance and volunteering in Fargo, ND, and Eden Prairie, MN. The Northern Planes Chapter in Fargo hosted their first ever GIAD event. UND's members were honored to help plan and volunteer for their first event.

Over 10 UND members traveled to Eden Prairie and volunteered at Flying Cloud Airport for their event hosted by the Stars of the North Chapter. The event went from 10:00 AM to 3:00 PM and time flew as our members worked hard throughout the day volunteering in various positions



The day was filled with numerous areas for young girls to experience. The Discovery Hanger included aerospace hands-on activities that highlighted STEM aspects in the industry. The Exhibit Hall featured numerous airlines, universities, the FAA, and many other professional aviation businesses that showcase the countless career opportunities in the industry. Presentations of inspirational conversations of several women's remarkable journeys about overcoming obstacles and pursuing their aviation dreams were presented throughout the day as well. Girls in Aviation Day encourages and helps foster female participation in aviation-related careers. It is inspiring to notice the gradual increase in participation each year at this event. Our chapter members are excited to volunteer and see participation grow at next year's 10th annual GIAD!



UpLift Chair Mark Volk Porter and Vice Chair Carson Calhoun attending IPAAC

## UpLift Travels Near and Far

by Carson Calhoun | UpLift Vice Chair

This Fall semester, some of the UpLift peers traveled to different conferences and symposiums to increase their knowledge on various elements of peer support as well as connect with other established, and up-and-coming, peer support programs. For those who don't know, UpLift is a confidential mental health peer support program for the students and flight instructors of UND Aerospace. Although supported by the UND College of Aerospace, UpLift is completely independent of the UND Aerospace College. The peers attended the Mental Health Symposium hosted by Middle Tennessee State University and the International Peer Aviation Assist Coalition Conference. These were multi-day events that gave peers the

opportunity to discuss support programs at the collegiate level, program development, and participate in workshops to help further the UpLift program. Participating in both the IPAAC Conference and the Mental Health Symposium proved to be a valuable educational experience. Between the two events, the presence of airline personnel, maintenance professionals, and air traffic control representatives representing nearly every continent offered diverse perspectives, unique topics, and cultural insights into the intersection of mental health and aviation education. Reflecting on the events and considering how the lessons learned can enhance the UpLift program for students, adjustments will be made to refine the way specific training aspects and procedures are carried out. Additionally, the peers now have increased insight that they can bring back and further spread among the other individuals that are part of the UpLift program. There is no doubt that attending these events was educational, valuable, and inspirational. The UpLift program is extremely grateful for the selfless donors and supporters that believe in changing the stigma of mental health in aviation and made attendance of these incredible conferences possible!

**upLIFT**



# SAMA Attends NBAA BACE

by Josh Salmi | SAMA President



The Student Aviation Management Association embarked on an exciting, networking-intensive trip to NBAA-BACE in Las Vegas this past October. With no record of previous SAMA members attending on behalf of the school, five members attended the three-day conference which included everything from a wide variety of aircraft manufacturers to flight support services and forums reflecting on leading-edge industry news and practices. The National Business Aviation Association (NBAA), who hosts the conference, worked closely with SAMA to generate endless opportunities while in attendance and created a seamless experience amongst the other 25,000+ attendees. The main portion of the conference was held at the Las Vegas Convention Center, where exhibitors from around the world gathered to share industry-changing inventions and new practices with each other. Additionally, the conference itself boasted a full selection of business aviation aircraft at Henderson Executive Airport, with an impressive selection of everything from the newest turboprops to ultra-long range executive jets.



SAMA was incredibly impressed with the dedication and effort put into the conference; and would like to extend a special thank you Elayna Hall (20'), who currently works for the NBAA and ensured SAMA had a great experience through incredible support with planning and Daran Dorman (22'), who currently works in business development for Embraer, who was generous enough to allow our members to experience the Embraer business jet fleet firsthand. SAMA looks forward to returning to NBAA-BACE in the future and feels incredibly fortunate to have had the opportunity to attend.

# Updates from SAAC

This fall semester, SAAC's goal was to reestablish itself as a champion for students. We knew the students had a lot to say - so we started by increasing the communication channels open to us. The response we received was incredible - an amazing breadth of ideas and concerns.

With a bigger think tank, we got to work. I started "Flight Ops Update," a twice-monthly newsletter for students on the flight line. From holiday hours and closures, airport construction, parking updates, weak areas on stage checks, and aircraft availability, I'm proud to say our fellow aviators are more informed than ever before.

Julianne, SAAC's VP, collaborated with UND Career Services to create up-to-date resume and interview preparation documents to help our peers pursue their careers. Kal, our Director of Student Outreach, doubled the Collegiate Mentorship Program's active participation rate. The CMP links first-year students with upperclassmen, which eases the transition from high school to college. Josh, our Secretary, and I helped implement a new mentorship program in collaboration with the Aerospace Alumni Advisory Board - the Industry Mentorship Program ties our upperclassmen students with alumni in the industry with respect to their desired career track or place of employment.

In closing, I want to take a moment to thank everyone who brought up their concerns or shared their vision for a better future. Your words have helped create a better future for you and your peers. Know that there's work to do, and we'll need your help in ensuring that UND Aerospace continues to put students first.

Arjun Jagada  
President, Student Aerospace Advisory Council

## GRADUATING SENIORS

Congratulations! From everyone on SAAC, we wish you the absolute best in all your future endeavors. You have worked so hard over the last few years and your dedication doesn't go unnoticed. Through hard classes, tough instructors, and everything in between you persevered and made it to the end. Whether Grand Forks is home for you or you are moving across the world, remember that your UND family is so proud of you and always wishes you clear skies!

We also say goodbye to member **Aidan Lally** who will be graduated from the council this semester. We thank you for your service to the students of the Aerospace College!

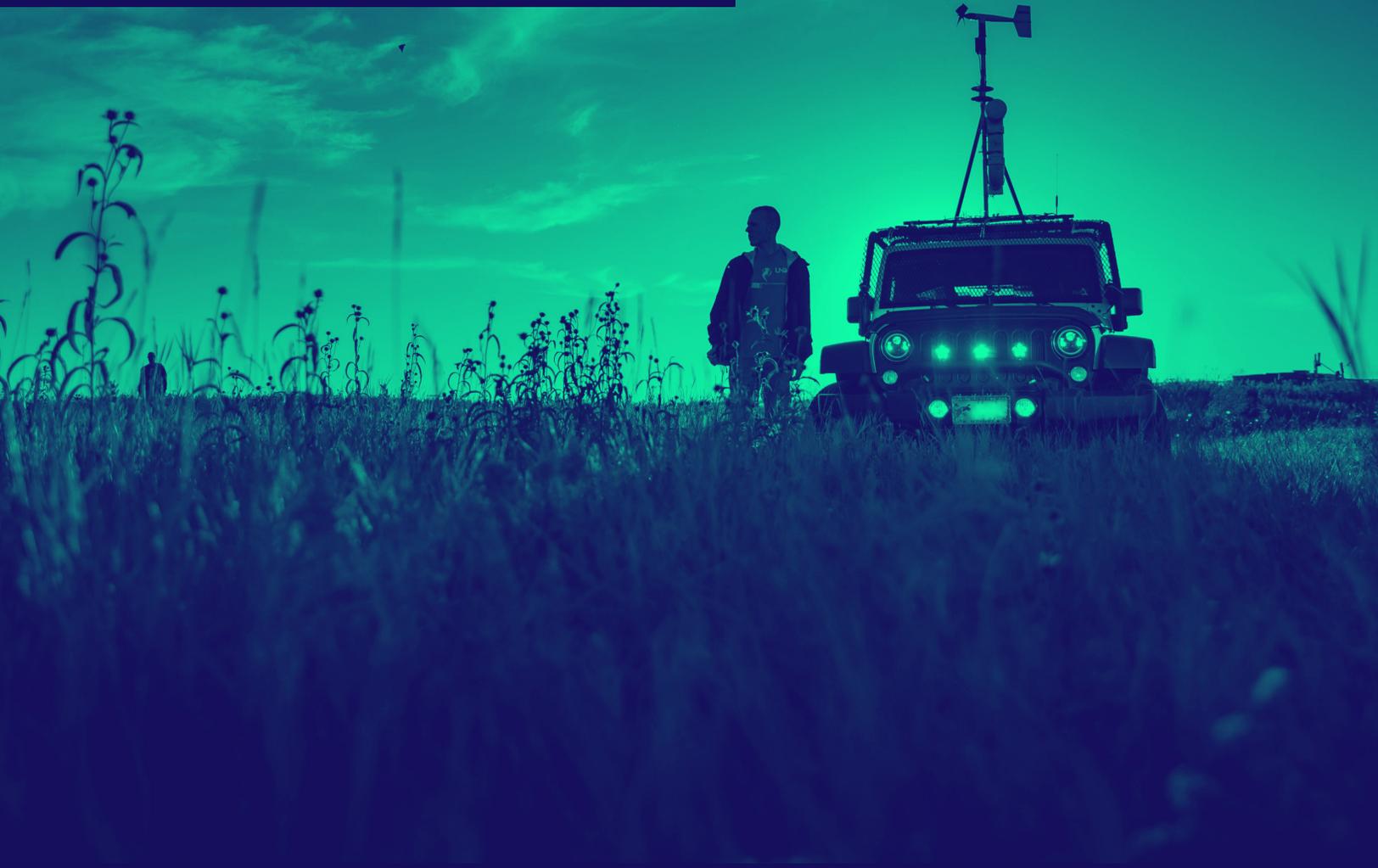
## NEW MEMBERS

This past month, current SAAC members had the pleasure of reviewing, interviewing, and choosing new council members! After a marathon 2-days of interviews, we are pleased to announce our newest members of SAAC:

**Zoe Bundy and Ethan Matthews**

JOIN US FOR A MEETING

Sundays @ 4:00PM | Robin 136



# SAAC

STUDENT AEROSPACE  
ADVISORY COUNCIL

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