

Lynnlee Bestul

1517 N 5th Street – Grand Forks, ND 58203 – (386)-843-1115 – lynnlee.rosolino@und.edu

Education

University of North Dakota – John D. Odegard School of Aerospace Sciences

- **Ph.D. in Atmospheric Science** (Expected: December 2029)
- **M.S. in Atmospheric Science** (Graduated: December 2024)

Embry-Riddle Aeronautical University

- **B.S. in Meteorology** (Graduated: May 2022) | Minor in Mathematics and Chemistry
-

Professional Experience

Graduate Research Assistant

–

University of North Dakota – Grand Forks, ND
January 2023 – Present

- Conducted research on cloud seeding effectiveness.
- Applied multiple methods of hail-size detection including satellite-based, radar-based, and index-based algorithms.
- Developed a machine-learning algorithm to fuse hail detection methods.
- Published thesis: [Analyzing The Effects Of Cloud Seeding On Hail Suppression During The North Dakota Cloud Modification Project](#)
- M.S. & Ph.D. Advisor: Dr. Marwa Majdi (marwa.majdi@und.edu)

SARPEC Cloud Probe Operator

–

Riyadh, Saudi Arabia
November 2023 – April 2024

Saudi Aerosol-Cloud-Precipitation Enhancement Campaign

- Conducted ground testing, repairs, installation, and uninstallation of in-situ cloud microphysical probes on Weather Modification International Citation Research Aircraft.
- Analyzed cloud probe data during research flights for IOP2 and IOP3, ensuring optimal instrument performance.
- Coordinated with flight scientist and engineer, and contributed to the collection and post-processing of data.

Graduate Teaching Assistant

–

University of North Dakota – Grand Forks, ND
August 2022 – December 2022
August 2025 – December 2025
May 2026

- Driver and teaching assistant for Storm Experience Field Trip (ATSC320) | Summer 2026
- Instructor of Record for Introduction to Atmospheric Science (ATSC110) | Fall 2025
- Taught 2 lab sections including lectures, hands-on lab experiments, and grading for Introduction to Atmospheric Science Lab (ATSC11L) | Fall 2022
- Assisted with grading, creation of homework and quizzes for Atmospheric Thermodynamics (ATSC350) | Fall 2022

Radar Meteorologist

–

North Dakota Department of Water Resources – Bowman, ND
May 2022 – August 2022

- Conducted a summer cloud seeding project with a team of pilots and meteorologists.
- Tasks included operation of a C-band radar, operational decision making, communication via two-way radios, and training intern meteorologists.

Intern Meteorologist

–

North Dakota Department of Water Resources – Stanley, ND
May 2021 & August 2021

- Worked alongside a team of pilots and meteorologists to conduct a summer cloud seeding project.
 - Tasks included communicating daily forecasts with project personnel, assisting with directing pilots over two-way radios during seeding operations, and producing a written forecast for the day.
-

Skills

- **Programming Languages:** Python, MATLAB
- **Scientific Software:** TITAN, IRIS, ADPAA, GR2-Analyst, BUFKIT, CM1, WRF Model

- **Technical Expertise:** In-situ cloud probe troubleshooting and analysis, C-band radar operation and maintenance
- **Operating Systems:** Linux, Windows
- **Communication:** Experienced in public speaking and presenting at conferences (e.g., AMS).

Publications

Journal/Scholarly Articles

- 1) **Bestul, Lynnlee Storm;** Majdi, Marwa; Langerud, Darin; Brothers, Daniel; Delene, David J.; and Chrit, Mounir. Analyzing the Effects of Cloud Seeding on Hail Suppression: A Preliminary Analysis of Radar and WRF Model Data in Western North Dakota. 2026. Website URL: <https://doi.org/10.54782/001c.162115>. Persistent identifier: <https://doi.org/10.54782/001c.162115>. Other relevant citation information: The Journal of Weather Modification, published June 7, 2026.

Other

- 1) Delene, David, Skow, A.; **Rosolino, L.,** Majdi, Marwa; and Nairy, C. Data in Delene et al. (2025) publication entitled “Cloud Microphysical Observations of Seeded Clouds during the Saudi Arabia Aerosol-Cloud-Precipitation Enhancement Campaign (SARPEC)”. Dataset. 2025. Website URL: <https://commons.und.edu/data/37>. Persistent identifier: <https://commons.und.edu/data/37>. Other relevant citation information: Datasets, 37. DOI: N/A.

Presentations

Oral

- 1) **Bestul, Lynnlee;** Majdi, Marwa; and Chrit, Mounir. A Radar-GOES Fusion Method for Evaluating Hail Suppression in Western North Dakota. Oral presentation. American Meteorological Society Madison Summit, August 5, 2026. Website URL: [A Radar-GOES Fusion Method for Evaluating Hail Suppression in Western North Dakota](#). Persistent identifier: N/A. Other relevant citation information: N/A.
- 2) **Rosolino, Lynnlee;** Majdi, Marwa; Langerud, Darin; and Brothers, Daniel. Analyzing the Effects of Cloud Seeding on Hail Suppression during the North Dakota Cloud Modification Project. Oral presentation. Weather Modification Association Annual Meeting, January 17, 2024. Website URL: N/A. Persistent identifier: N/A. Other relevant citation information: N/A.
- 3) Detwiler, Andrew; **Rosolino, Lynnlee;** Delene, David J.; et al. Cloud Observations and Processes in Convection over Central Saudi Arabia. Presentation. Weather Modification Association Annual Meeting, Las Vegas, NV, April 16–18, 2024. Website URL: N/A. Persistent identifier: N/A. Other relevant citation information: N/A.

Poster

- 1) Majdi, Marwa; **Bestul, Lynnlee S.;** Delene, David J.; and Schneider, Mark. Development of a Machine Learning System to Emulate WRF Forecasts for Thunderstorm Nowcasting in Support of the North Dakota Cloud Modification Project. Poster presentation. 106th American Meteorological Society Annual Meeting, Houston, TX, January 28, 2026. Website URL: N/A. Persistent identifier: N/A. Other relevant citation information: Hall B3.
- 2) Majdi, Marwa; **Rosolino, Lynnlee;** Delene, David J.; and Langerud, Darin. Development of a Machine Learning System to Emulate WRF Forecasts for Thunderstorm Nowcasting in Support of the North Dakota Cloud Modification Project. Presentation. 11th World Meteorological Organization Scientific Conference on Weather Modification, Pune, India, November 3–7, 2025. Website URL: N/A. Persistent identifier: N/A. Other relevant citation information: N/A.
- 3) **Rosolino, Lynnlee;** Majdi, Marwa; Langerud, Darin; and Brothers, Daniel. Analyzing the Effects of Cloud Seeding on Hail Suppression during the North Dakota Cloud Modification Project. Poster presentation. 105th American Meteorological Society Annual Meeting, New Orleans, LA, January 15, 2025. Website URL: N/A. Persistent identifier: N/A. Other relevant citation information: N/A.
- 4) **Rosolino, Lynnlee,** Shawn Milrad, Lightning-Sparked Wildfires in the Arctic: Recent Events and Associated Meteorological Conditions, Poster presentation given at the American Meteorological Society (AMS) Annual 2022 Student Conference on 23 January 2022. <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/400501>

Service

- University of North Dakota Atmospheric Science Graduate Student Association
 - M.S. Student Representative – 2024-2025
 - PhD Student Representative – 2026-2027

- University of North Dakota SCALAR Conference
 - Planning Committee – 2025-2026
 - Session Chair – April 2026
- American Meteorological Society
 - Session Chair, Madison Summit – August 2026