

*Jonathan Beck*  
**Northland Community and Technical College**  
**13892 Airport Drive**  
**Thief River Falls, MN 56701**

**a. Professional Preparation**

Institution	Major	Degree	Year
Parallax	UAV Educators Course	PDU/CEU	2016
Abaris	Advanced Composite Structures: Phase 2 Course	Cert	2015
Abaris	Advanced Composite Structures: Phase 1 Course	Cert	2015
Twin Cities Aviation	Private Pilot	Lic	2015
NCATT	UAS Maintenance Technician	Cert	2011
Cochise College, Sierra Vista, AZ	Intelligence Operations (UAS Emphasis)	AAS	2009
Army Training Command, AZ	MQ-1C Gray Eagle UAS Key Personnel Program	Cert	2009
Army Training Command, AZ	UAS Standardization/Instructor Program	Cert	2008
Army Training Command, AZ	Senior Instructor Program	Cert	2008
Army Training Command, AZ	RQ-7B Shadow UAS Pilot/Sensor Operator Program	Cert	2004
Army Training Command, AL	Air Traffic Control Specialist Program	Lic	2001

**b. Appointments**

**Northland Community and Technical College**

**2011-Present, UAS Instructor and Program Manager**

- Principal Investigator, NSF ATE DUE 1902574 “National Center for Autonomous Technologies”
- Principal Investigator, NSF ATE DUE 1700615 “Unmanned Aircraft Systems and Geospatial Information Technology Integration into Technician Education”.
- Principal Investigator, NSF ATE DUE 1501629, “Discover Revolutionary Opportunities for Highly Educated Unmanned Aircraft Systems Technicians”.
- Established the nation’s first collegiate UAS Maintenance Education Program
- Designed curriculum and provided instruction for autonomous technologies.
- Collaborated on the development of the Nation’s first two-year Imagery Analysis and Geospatial Intelligence Programs focused on civil application.
- Collaborated on the development of a Precision Agriculture Equipment Technician AAS Degree Program.

**St. Cloud State University**

**2016-Present, Research Faculty and Adjunct Instructor**

- Assisted the Geography Department in the integration of UAS technology into the Geographic Information Systems Degree Minor and Master’s Certificate and Land Survey and Mapping Program
- Designed/Instructed GEOG 476 Special Topics for UAS Data Acquisition and Processing and GEOG 365 UAS and Geospatial Analysis

**Ridgewater College**

**2017-Present, Adjunct Instructor**

- Assisted the Precision Agriculture Program GPS/GIS Information Systems Technology Program integrate UAS technology.
- Designed/Instructed AGRI 1772 Remote Sensing/Image Analysis

**General Dynamics Information Technology**

**2009-2011, Instructor/Mission Commander/Team Lead (MQ-1C Gray Eagle UAS)**

- Team lead for initial group of instructors on the MQ-1C Gray Eagle Unmanned Aircraft System Program.
- Supervised 20 instructor contractors and managed course development and schedules.
- Developed curriculum for the Army’s MQ-1C Gray Eagle Medium Altitude Long Endurance UAS program.
- Taught a variety of hardware, software, and system logic and aircrew education courses.

**2008-2009, Instructor/Mission Commander (RQ-7C Shadow UAS)**

- Instructed, coached, and mentored entry-level students for the Army’s Schoolhouse for UAS operations.
- Employed training aids, devices, and simulators for pilots and sensor aircrew training.
- Supervised flight operations, conducted risk assessment, managed customer interaction within the mission, and maintained safety of flight.

## United States Army

### **2008-2010, United States Army, Air Traffic Controller**

-Achieved a Federal Aviation Administration, Control Tower Operator License and multiple tactical tower ratings

### **2004-2008, United States Army, Unmanned Aircraft Systems Instructor/Standardization Operator**

-Developed the first UAS training curriculum for the Minnesota Army National Guard

-Technical advisor for the Minnesota Army National Guard's UAS unit and assisted in the development, implementation, evaluation and management of the UAS program.

### **2001-2004, United States Army, Air Traffic Controller**

## **c. Products and Publications**

1. Beck, Jonathan. "Drone Restrictions In Federal Wilderness Areas" Minnesota Education Section, *Midwest Flyer Magazine*, June/Jul 2018: 54, 62
2. Beck, Jonathan. "Unmanned Aircraft Systems...Technology Creating New Perspectives That Will Open The Imagination For Future Generations" Minnesota Education Section, *Midwest Flyer Magazine*, December/January 2016: 54-57 Print
3. Beck, Jonathan. "Launch Your Career in Aerospace" Minnesota Education Section, *Midwest Flyer Magazine*, August/September 2014: 54-57 Print
4. Beck, Jonathan. "The Frontier of UAS Education." Interview by Kris Bevil. *Prairie Business Magazine* June 2014: 28-29. Print.
5. Beck, Jonathan. "College Becoming National Leader." *Minnesota Flyer Magazine* Mar. 2014: 4-5. Print.

## **d. Synergistic Activities**

1. **DRONETECH "Drones and Geospatial Applications" and "The Drone Build" Educator Workshop and Summer Camp, 2015-2018, PI/Presenter, Northland Aerospace Campus.**
  - 3-day educator workshop to prepare and advance educator knowledge in
  - Multiple STEM Camp related events with regional service centers, HS technical centers, and other community-based organizations
2. **GeoTECH Center National Visiting Committee, 2018, Jefferson Community and Technical College**
  - Served on the National Visiting Committee for the NSF ATE GeoTech Center
3. **UAS Maintenance Technician DACUM, June 2016, Subject Matter Expert, Hosted at Northland Community and Technical College, Sponsored by SpaceTEC NSF-ATE National Resource Center for Aerospace Technician Education.**
4. **SpaceTEC National Visiting Committee, 2017**
  - Served on the National Visiting Committee for the NSF ATE Center for Aerospace Technical Education
5. **sUAS Pilot and Sensor Operator Knowledge and Skills Assessment Workshop, March 2016, Subject Matter Expert, Hosted by Sinclair College, Dayton OH, Sponsored by the Air Force Research Laboratories.**
  - This workshop focused on a review of the foundational knowledge, skills required for remotely piloted aircraft pilots and sensor operators working commercial settings. Reviewed results of recent surveys and provided inputs to reach consensus on experiences required for developing those knowledge and skills.

## **e. Collaborators & other Affiliations**

2018 Distinguished Geospatial Educator of the Year, Presented by the NSF ATE GeoTECH Center  
National Coalition of Advanced Technology Centers (NCATC), 2015 Co-Presenter with James Retka, Dean MnSCU AgCentric, "sUAS Curriculum Development" project, Subject Matter Expert  
Minnesota Department of Agriculture, "Digital Imagery, Precision Agriculture" project, Subject Matter Expert  
Association for Unmanned Vehicle Systems International (AUVSI) (Member)