A MESSAGE FROM THE DEAN

It is great to be back! President Kelley and Provost LaBel were kind enough to approve a research leave of absence for me over the past spring semester. The purpose of the leave was twofold; first to establish an exercise regimen designed to prolong my career as the Dean of the Odegard School, and second, to write a sequel to the book *Flight of the Odegard*. In 2008 the UND Aerospace Foundation Board of Directors commissioned author Patrick McQuire to capture the story of the first 40 years of our history. In the book, *Flight of the Odegard*, Pat masterfully captured the spirit of the founder, John Odegard and his legacy that now stands as one of the finest aerospace colleges in the world. Now, the Board has asked if I would provide a personal look back at the past 13 years I have served as the Dean of the Odegard School in a way that provides some insight into the reasons for our success. My time on research leave was well spent. I returned on June 4th rejuvenated and excited about the 240 page draft manuscript that will serve as the heart of the book. The proposed title is, *Nowhere but North Dakota*. Here is how the story of the success of the Odegard School begins:

"I was sitting at my desk looking out the window at the snow blowing horizontally across the roof. It was minus 25 degrees and the wind was gusting from 20–30 miles per hour. I thought, “There has to be a better place to do this.” I wondered if the only reason we were in North Dakota was because this is where John Odegard happened to be going to graduate school when the Business College Dean, Tom Clifford, talked him into building a flight school. There is no question that the Odegard School is successful in North Dakota, but I asked myself, “couldn’t it be just as successful somewhere else, especially if that somewhere else was in a warm climate?” Why couldn’t you take all of the existing pieces of the Odegard school and entice a few key people, who felt being warm was better than being cold, to join you and be just as successful? It inspired me to build a list of all of the things that contribute to our success and to imagine a place where you could replicate the Odegard School with the same level of success. I concluded it couldn’t. The answer is quite simple; Nowhere but North Dakota."

If all goes well I hope to have the book published in time for our 45th Anniversary at Homecoming this October. I want to personally thank Dr. Paul Lindseth for filling in as the Dean in my absence and doing a tremendous job keeping the finest aerospace college in the world running smoothly.

Bruce A. Smith | Dean, John D. Odegard School of Aerospace Sciences
Air Race Classic
Amy Warbalow and Katrina Kugler become first UND team to undertake the Air Race Classic

Fulbright Fellowship
ESSP faculty member to study climate policy in the United Kingdom

Department of Space Studies
UND Space Studies Department earns prestigious NASA Johnson Space Center award for 25 years of excellence

North Dakota Space Grant Consortium
Caitlin Nolby hired as new Space Grant coordinator

Alumni Profile

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A message from AAAB President, Rich Baker

AeroNews

Upcoming Events
Air racing is a major flying challenge. No doubt it’s a lot of fun, but it’s also a serious business that takes equal servings of confidence, skill, and stamina.

University of North Dakota aviators Katrina Kugler and Amy Warbalow—possessing all the required licenses and plenty of vital flying and personal leadership skills—signed up for this year’s Air Race Classic—a women-only event—which took place June 18-21. The team safely completed the race in 18th place overall out of nearly 50 entrants.

UND Aviation—part of the John D. Odegard School of Aerospace Sciences—was confident enough in their aviation know-how to support them in this internationally famous race: UND furnished the self-labeled “wUNDer Women” team with one of its newest Cessna 172 aircraft with an all-glass cockpit and fuel credit cards. The two women flew out of Grand Forks June 12 in Cessna 172 N561ND—emblazoned on the empennage with their big red 10 race number—a full load of fuel, and confidence built on years of training.

For these two young women—Kugler, a UND alum and flight instructor from Yuma, Arizona, and Warbalow, a student from Minocqua, Wisconsin—the preparation for the big race event took just about a lifetime.

The UND team finished 6th overall among 13 collegiate teams. They returned to Grand Forks from Arkansas, where the race ended, Tuesday, June 25. Among the honors they garnered “on the road”, Kugler and Warbalow won the Collegiate Ester...
Lowery Stafford Scholarship, the first time the scholarship has been awarded. They were also one of only seven teams that flew a "clean" race. The team noted appreciatively that UND alum and Wal-Mart corporate pilot Julie Hall met the women at the final stop of the race in Fayetteville, Arkansas.

**FIRST FLIGHTS WITH DAD**

“My first plane ride was when I was only ten days old and I have been flying with my dad—an airline captain who flies internationally—ever since,” said Warbalow (pictured above), who recently completed the requirements to be a certified flight instructor. “I have logged time in a Sting Sport, Piper Warrior, Piper Seminole, Beechcraft Skipper, Piper Aerostar, Cessna 172 and Cessna 150. I wanted to be in airplanes because I have a passion for flying and I enjoy traveling.”

For Warbalow, UND was a natural choice. “I picked UND because it was relatively close to home, and I’d heard that it’s the Harvard of aviation,” Warbalow said. “Besides wanting to fly, I wanted to obtain a good education and knew that I could receive both the flying skills and the education at UND. I knew that I was going to get my money’s worth coming here.”

Kugler—who is also a UND Supervisor of Flight and performs stage checks—caught the flying bug when her dad started learning to fly when she was nine years old.

“I went up with him and his instructor a couple of times and thought it was really cool,” said Kugler, who enjoys reading and baking when she’s not handling an airplane. “So I said, ‘I’m going to do this!’”

After spending her high school years flying whenever she could and gaining leadership from the local Civil Air Patrol squadron in her hometown, she aimed even higher: an aviation degree at UND.

All that experience puts these women at the forefront of an aviation program noted for its academic rigor and excellent safety record. However, as both women remarked, the team is taking nothing for granted.

“We were very careful in selecting the aircraft for this race,” said Warbalow, who says besides flying herself, she enjoys teaching aviation.

**IT'S ALL IN THE DETAILS**

“As we count down to our departure, we are staying very busy,” said Kugler. “We are setting up meetings with faculty members, airport personnel, and planning the route.”

The process included choosing the right plane, learning the ups and downs of mountain flying and making detailed plans for how to fly this well-known event. That includes where to
stay at night after they land for the day (the race is run during daylight hours only).

In the team’s air race blog, Kugler (pictured right) notes that a colleague helped out by finding en route hotels. “That was a big load off our shoulders in the long list of things we needed to get done before we left,” Kugler said.

Yes, it’s about speed—getting there faster than the other women you’re racing against. But it’s also about getting there in one piece—safety is a key concern. The two women met regularly with UND’s chief of aviation safety, Dana Siewert, to talk about safety concerns, and with air fleet manager and mountain flying expert, Don Dubuque, to discuss the special requirements for mountain flying conditions. They also consulted regularly before and during the race with aviation meteorology expert Fred Remer to help them plan their race route while avoiding bad weather. Fred’s watchful eye and keen forecasting helped them around a few big storms.

**ABOUT THE AIR RACE CLASSIC**

Women’s air racing all started in 1929 with the First Women’s Air Derby; 20 pilots raced from Santa Monica, California, to Cleveland, Ohio, site of the National Air Races, according to the detailed history of the Air Race Classic posted on its website. Racing continued through the 1930’s and was renewed again after World War II when the All Women’s Transcontinental Air Race (AWTAR), better known as the Powder Puff Derby, started. The AWTAR held its 30th and final commemorative flight in 1977.

When the AWTAR was discontinued, the Air Race Classic, Ltd., (ARC) stepped in to continue the tradition of transcontinental speed competition for women pilots and staged its premier race. The Air Race Classic was reincorporated in 2002 into the Air Race Classic, Inc., a non-profit organization. The early air races were the “on to” type, with noon and night control stops, and the contestants more or less stayed together. In that manner, weather and flying conditions were practically the same for each entrant and the race officials could release standings to the media after each day of racing.

The current race routes are approximately 2,400 statute miles in length, and the contestants are usually given four days, flying by visual flight rules to reach the finish.

“Each plane was assigned a handicap speed,” said Kugler. “What you want is to achieve a ground speed that’s faster than your assigned handicap speed. That means your aircraft has to be in excellent condition because you’re flying flat out for most of the race.”
In other words, race organizers explained, the objective was to fly the perfect cross-country trip. In this type of race, the official standings weren’t released until the final entrant crossed the finish line and the last arrival could be the winner. Besides being a great transcontinental race, it’s a time for making new friends in the aviation community and honing vital flying skills. Race teams were made up of two or more women pilots flying a single or twin engine airplane that is certified in the normal or utility categories with normally aspirated engines rated for continuous maximum operation (no limitations) at full takeoff power.

Collegiate teams are also entered in the collegiate division if all members of the team are closely affiliated with the sponsoring college or university and, at the time of ARC application, the team pilot is a registered undergraduate student at the sponsoring university or college.

Here are the crew rules, according to the race organizers: a crew consists of two women pilots. Additional women teammates are allowed, with at least a current student certificate or better, or a pilot’s license without a current medical certificate. Pilot, Copilot and Teammate(s) are collectively referred to as a Team, and all members of all Teams are referred to as Contestants. No pets may be carried.

“We had four days to get to our ending point,” Warbalow said. “We chose where to stop for the night, and we had eight or nine points to choose from. We also had to stop for gas because at full throttle the Cessna 172 doesn’t have the range.”

The two women expected no problems but departed well prepared for contingencies. That preparation included the enthusiastic support of their families.

“Katrina’s parents flew up to Pasco, Washington, to see us takeoff and my parents flew their Beechcraft Skipper into Fayetteville to see us at the end,” said Warbalow.
Rebecca J. Romsdahl, assistant professor in the Department of Earth System Science & Policy (ESSP) at UND, earned a 2013-2014 Fulbright US Scholar Award to conduct research in the United Kingdom this fall. Her project is titled "Comparing Adaptation Planning for Climate Change at Local Government Levels in the United Kingdom and United States." ESSP is part of the UND John D. Odegard School of Aerospace Sciences (UND Aerospace). The United Kingdom is one of the most coveted Fulbright countries.

Romsdahl is the first UND Aerospace faculty member to get the US State Department’s Fulbright Award, a program administered by the Council for International Exchange of Scholars, a division of the Institute for International Education. Romsdahl will be hosted at Lancaster University, in Lancaster, which is located on the northwest coast of England, about two and a half hours by train from London. The ongoing focus of Romsdahl’s research is global climate change and its policy implications.

"Climate change is the greatest threat facing humanity in the 21st century," said Romsdahl, who grew up on a farm near St. James, Minnesota. “My Fulbright project will utilize a quantitative survey and qualitative interviews with local government officials in the United Kingdom to develop a deeper understanding of how local governments are framing climate adaptation. I’ll also be looking at the role of policy entrepreneurs, diagnosing barriers to adaptation policy, and identifying strategies for how barriers have been overcome.”

Romsdahl will analyze her findings in the United Kingdom with similar data collected in the US to provide a comparative understanding of climate adaptation planning.

“Insights from this project will be valuable to public policy for both UK and US governance as they struggle to implement climate policy by two different routes, top-down versus bottom-up,” she said.

“Global climate change poses significant challenges to governance due to the complexity of human-environment interactions, the high stakes involved in the costs, and benefits of policy actions,” said Romsdahl, whose interest in this field of inquiry began with a report she wrote about the ozone hole for a high school biology class. She refined her interest in climate science during her PhD training.

“I was awarded a three month fellowship with the National Academies of Science through its Christine Mirzayan Science and Technology Policy Graduate Fellowship Program,” said Romsdahl. “I worked with the Committee on the Human Dimensions of Global Change. This is when I was introduced to the international scene of climate change research and policy activities and a variety of people involved.”

Romsdahl begins her six month Fulbright fellowship at Lancaster this upcoming September. Her husband Michael Beltz, a faculty member in the UND Department of Philosophy and Religion, will accompany his wife, teaching his courses online for the duration of Romsdahl’s Fulbright Award.
By Juan Miguel Pedraza  
Photography by UND Division of University and Public Affairs

There was a lot more to John D. Odegard’s inspiration to launch the Center for Aerospace Sciences (CAS) than airplanes and pilot training. The respected pilot and aviation educator was thinking well beyond wings and propellers when he put together the concept for a Department of Space Studies.

“He was a true visionary,” said Dr. Santhosh Seelan, professor and chair of the Space Studies Department. Seelan, a satellite image and remote sensing expert, was previously the founding chair of Earth System Science and Policy, another academic division in the John D. Odegard School of Aerospace Sciences that underscores Odegard’s broad outlook for the school he created. In the 25 years since its inception, Space Studies has launched many a fabled career and educated hundreds of graduates with advanced degrees in space studies. It is also home to a distinguished National Aeronautics and Space Administration (NASA) program that is currently developing an innovative system for space explorers, including a suit, a rover, and a habitat.

That kind of pioneering work has earned UND Space Studies an enviable worldwide reputation. An excellent example of that recognition is the announcement earlier this month that NASA-Johnson Space Center selected UND Space Studies to receive a “JSC Certificate of Appreciation” for 25 years of outstanding leadership in university education in space studies, aerospace workforce development, and for accomplishments in interdisciplinary aerospace research. “I believe this is the highest non-individual, group award given by Johnson Space Center, and we are indeed very honored and proud to receive this award,” said Seelan. “Of course an award of this nature for sustained excellence over 25 years is not possible without the dedicated work of all former and current students, faculty and staff, and all the support we have received from various entities within the University of North Dakota, particularly the Dean’s office.”

The award was formally presented on July 23 during a short ceremony at the Johnson Space Center. In an email exchange with Seelan about the award and the ceremony at JSC, Odegard’s widow Diane said, in part, “I am so proud of what has been accomplished in the last 25 years and the exciting research that will possibly change the way we understand the universe that will happen in the next 25.” Charles “Chuck” Wood, Chester Fritz Distinguished Professor and former chair of the department and a former Johnson Space Center scientist, said in a similar exchange with Seelan, “I think that UND Space Studies keeps getting better and better, and now with hundreds of former students throughout the space community, the reputation keeps growing, too. I don’t think John Odegard would be surprised that Space Studies has reached this anniversary for he had the vision that space would be humanity’s future.”

Many other program alums from all over the world communicated their congratulations about the award and the anniversary with Seelan. Today’s UND Space Studies encompasses everything from the study of planetary geology and near-earth objects to the development, design and building of “space suits” – more technically accurate planetary exploration suits and their associated support systems – to space flight simulators. “Space is a fascinating field,” said Seelan. “It is still not only the final frontier for exploration, but space technology is also making life on Earth better for us.”
Earlier this year, the North Dakota Space Grant Consortium got a new coordinator following the retirement of Suezette Bieri, who ran the program for more than 20 years. The Consortium is based in the Space Studies department at UND’s school of Aerospace Sciences.

Caitlin Nolby, an astrophysics major with a UND Space Studies graduate degree, was hired as the new Space Grant coordinator. She says she was inspired by great teachers to get into science.

“One told us about meteor showers, so my dad and I watched one night in our backyard, and that did it for me,” said Nolby (pictured left), who grew up in Andover, Minnesota. “I chose astrophysics because it was the most ‘spacey’ of the degree offerings at the University of Minnesota—it had lots of math, too!” she said.

Her UND degree focuses on teaching observational astronomy as well as space studies to students of all ages. With her new position, Nolby will be working in a science-related field, helping other people—including lots of children—sharpen their curiosity about space and science. She brings several years of experience with science outreach and education programs for the public, including a stint as the outreach coordinator for the Dakota Space Society. Later, as she pursued her graduate degree at UND, she was a research assistant for Dr. Paul Hardersen.

“I was doing overnights at the UND Observatory as students used the telescopes—I also helped with Star Parties and did classroom outreach,” said Nolby.

Over the years, Suezette Bieri made key contributions to the Space Grant Consortium’s progress, including several well-run pre-service teacher training workshops, annual reporting, and support to numerous STEM (science, technology, engineering and mathematics) initiatives across the state. Bieri also maintained excellent rapport with consortium members as well as state legislators, and was instrumental in securing the state match funding for the North Dakota Space Grant Consortium.

As the new coordinator of Space Grant and of the ND NASA EPSCoR program, Nolby will be conducting pre-service workshops for teachers around the state and classroom outreach. The state director for both programs is Santhosh Seelan, who is also a professor and chair of the Space Studies department.

The Consortium recently received an award of $860,000 for FY 12 and 13 from NASA’s Dept. of Education. The award is for promoting STEM education at the college level in North Dakota through “hands on” student projects, scholarships and fellowships for students, summer internships at NASA centers, and seed research. ND Space Grant is a state-wide program and all colleges and universities in the NDUS are members of the consortium.
AlumniProfile

Find Odegard School alumni across the globe
Numbers represent alumni living in each state

International Alumni
Antarctica, Australia, Belgium, Bolivia, Canada, China, Croatia, Estonia, Germany, Greece, Guam, Hong Kong, Iceland, India, Italy, Japan, Mexico, Nigeria, Norway, Papua New Guinea, Puerto Rico, Saudi Arabia, St Lucia, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Kingdom

Summer is here
Grab your warm weather gear

AEROSTOP
Your UND Aerospace Merchandise Headquarters
undaerospace.com | 1.800.258.1525 | 701.777.4740
Aviation Scholarship Ceremony
The generosity of our donors provided over $270,000 in scholarship and training awards to aviation students this year. Thank you for your continued support and for making a meaningful difference in the lives of our students.
AEROSPACE ALUMNI ADVISORY BOARD UPDATE

The UND Aerospace Alumni Advisory Board (AAAB) is pleased to offer a welcome to all fellow alumni and inform you of the latest happenings from the Board. It is my pleasure to relay to you that the UND AAAB remains active and dedicated in its mission of being a liaison between the Odegard School and active alumni. Since our last update, AAAB members have met for their Spring Meeting (pictured right) at the Minneapolis Air Traffic Control Tower and Tracon. This meeting proved to be a fantastic outreach to our graduates employed at this facility as well as an educational opportunity for those AAAB members in attendance. As with most air traffic control facilities in the Midwest, UND Alumni command a great presence. Over 35% of the Air Traffic Controllers in the Northern Plains Terminal Region (this includes the MSP facilities) are UND graduates! The pride of being affiliated with UND was in full bloom during our visit and it was great to observe our graduates in action. The Board extends its sincere thanks to our host and UND alum Glenn Hansmann, an operations manager at the facility, who provided logistical support and extended a most hospitable welcome to the AAAB. Thank you Glenn!

During this meeting, several topics were addressed and tackled by the Board. The AAAB is proud to announce the awarding of two $2,750 scholarships on behalf of the Board. The two recipients were Courtney Schlosser and Miles Laffitte. Congratulations to these two deserving individuals and we are more than happy to contribute to their continued success! The AAAB is actively planning with the University in order to “step up” our activities during Homecoming. This proved to be a notable success last year as almost every attending member was involved in some sort of interactional activity with the Odegard School. There is expected to be several opportunities available this year for the AAAB to interact with both students and faculty during homecoming week. AAAB members can expect to hear more about these opportunities soon. The AAAB also welcomes Ms. Jodi Schofield and Mr. Josh Hopper to the fold. Congratulations to our new members, we look forward to your active participation on the Board.

As stated in previous updates, the AAAB is open to all alumni who have an interest in serving in an advisory role to support the Odegard School. The Board does have a particularized need for expertise in the following disciplines to join our ranks: UAS, ATC (particularly FSS experience), International ex-pats in aviation occupations, and Space Studies. If you are involved or have experience in any of the fields listed above and have an interest in joining the Board, please send me an e-mail at leipzig06@comcast.net with a brief description of your career experiences since leaving UND. I ask that you please copy Josh Christianson at joshc@aero.und.edu in order to ensure receipt of your communication. The AAAB Fall Meeting is scheduled for Friday, October 11 from 11-3 PM. We are encouraging all AAAB members to consider arriving a day or two early as there will be opportunities to interact with students and provide an industry perspective in classroom settings. The AAAB is always looking for ways to increase its involvement and visibility in support of the Odegard School. We encourage any and all interested parties, whether faculty, students, or alumni to take advantage of the vast experience of our Board members. Any alumni that have an interest in serving in this capacity should contact myself or Josh Christianson. Thank you to all members who actively serve on the AAAB and freely give a portion of their precious time towards the betterment of the Odegard School. Hope to see you all at Homecoming!
AAAB UPDATE cont.

AAAB members at our Spring Meeting at the Minneapolis Air Traffic Control Tower and Tracon

What kind of a legacy will you leave?

A bequest is perhaps the easiest and most tangible way to leave a lasting legacy to the people and charitable organizations that mean the most to us. A bequest is a gift made through your will or trust. There are several ways to make a bequest:

- Specific dollar amount
- Percentage of your estate
- Specific asset
- Residue of your estate

www.undfoundation.org | giftplanning@undfoundation.org | 800.543.8764
The University of North Dakota Aerospace Foundation traveled to southern California recently to donate $25,000 to the Los Angeles Unified School District’s struggling aircraft mechanics school at Van Nuys Airport.

The donation will be used to award scholarships to low-income students preparing for a variety of high-paying, high-skilled jobs as trained airframe and power plant mechanics.

Recently threatened for closure by budget cuts, the vocational school was saved by a large private donation, strong advocacy campaign and rent relief from Los Angeles World Airports.

“The University of North Dakota is home to one of the nation’s top collegiate flight training programs and we’re honored to show our support for one of the nation’s top aircraft mechanics schools,” said Larry Martin, board chairman for the non-profit UND Aerospace Foundation. “Aircraft maintenance is one of the most important jobs in aviation, and great pilots need skilled aircraft mechanics to protect the safety of both flight crew and passengers.”

Martin presented an oversized $25,000 check to school district officials at the prestigious Valley of the Stars Gala Dinner & Awards Ceremony honoring leaders in education, business and community service.

The aviation-themed event also honored veteran pilot and UND board member Clay Lacy. The event was held in the Clay Lacy Aviation Hangar #3 at Van Nuys Airport. Festivities that evening included a red carpet reception and award presentations.

The renewal will bring 28 more Norwegian students to UND in September of this year and another class in September of 2014, according to Chuck Pineo, executive vice president of the UND Aerospace Foundation.

Kristen Kleven, Avinor chief of staff; and Jesper Krogh, Avinor head of training; joined Pineo, Paul Drechsel, chair of the UND Air Traffic Control Department; Terri Clark, chief financial officer for the UND Aerospace Foundation; and Cara Miller, controller for the UND Aerospace Foundation, at the June 28 graduation event and contract signing.

The UND International Air Traffic Control education program is based on Eurocontrol’s Common Core Content (CCC) and is certified by the Norwegian Civilian Aviation Authority. This certification ensures the program meets all the required criteria. This is a CCC “Initial Training” program, which includes theory, part-task practice and simulation.
July 29–August 4
EAA Airventure 2013
Oshkosh, Wisconsin

July 31
UND Aerospace Alumni & Industry Reception
6-9PM, Hilton Garden Inn
Oshkosh, Wisconsin

October 7–12
UND Homecoming 2013
Grand Forks, North Dakota

October 10–12
2013 AOPA Aviation Summit
Fort Worth, Texas

October 11
UND Aerospace Alumni Advisory Board Meeting
11AM-3PM, University of North Dakota
Grand Forks, North Dakota

October 22–24
National Business Aviation Association
66th Annual Meeting & Convention
Las Vegas, Nevada
A student receives instruction while inside a Link Flight Simulator in Gamble Hall c. 1969