the Alworth REPORT

FALL 2019

shoot for the

Jim Sponnick:

Fly me to the moon and beyond



A lot of kids get nicknames in grade school that reflect their appearance, such as Red or Slim. Not many are as lucky as Jim Sponnick to get a nickname that predicts their future, though.

"Being a child of the 60s and 70s and having the last name Sponnick, I grew up being called Sputnik," says Jim, referring to the first artificial Earth satellite, which was launched by the Soviet Union in 1957. "I often thought about that nickname years later, when we worked in close collaboration with the best rocket scientists and propulsion experts from Russia."

We're willing to bet none of those clever kids who called him Sputnik grew up to lead programs that launched spacecraft to the moon, the sun and beyond. And they certainly didn't receive the Distinguished Public Service Medal in 2012, the highest recognition of a non-government employee awarded to those "whose distinguished service, ability or vision...made a profound or indelible impact to NASA mission success."

Not bad for a kid who graduated from Duluth East in 1978 and is the answer to the question, "How far can a student go with the assistance of an Alworth Scholarship?" Jim helped launch the mission that eventually reached Pluto - at 3 billion miles away, the farthest planned destination for a spacecraft from Earth. He also worked on the mission that launched the Curiosity rover to the surface of Mars.

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Alworth Memorial Fund

Celebrating 70 Years of Launching Careers in Math & Science

Over 5,100 students | Over \$52 million since 1949

www.alworthscholarship.org



Jim Sponnick

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"My parents could not afford to send me to college, so college was paid for by the Alworth Scholarship, plus working, getting a couple smaller scholarships from UND and some student loans," says Jim, who graduated from the University of North Dakota's electrical engineering program in 1982.

He'd always been fascinated by the space program, an interest cemented at age 9 by the 1969 Apollo 11 moon landing. He credits helpful mentors at college and in his first years at work to his rise up in the space technology field.

And rise he did, becoming one of our nation's most accomplished space engineers, with 184 missions to his credit during his 33 years in the field. Along the way, he got to meet such heavyweights of space exploration as John Glenn, Buzz Aldrin, Ken Mattingly, Sally Ride and others.

It wasn't all highlights, though. His first job was with General Dynamics, working on guidance systems that would help launch satellites in space from the space shuttle, the first reusable space vehicle. It was an "Earth shattering" day when the shuttle Challenger blew up shortly after launch on Jan. 28, 1986. Certain aspects of the shuttle program were soon curtailed, including NASA having second thoughts about sending humans into space to launch satellites.

But Jim rode through the rough patch and into a golden age for rocket launches. In the 1990s, Lockheed Martin acquired the space business from General Dynamics, and the Atlas program was moved from San Diego to Denver.



Rocket with the Curiosity Mars Rover that is being transported out to the launch pad the day before launch. Jim is the tiny person leading the group walking out to the launch pad, ahead of the rocket. This walk with the customers was one of Jim's favorite things to do before each launch.

Throughout the 1990s, Jim held several engineering and project management positions for the Atlas program with responsibilities for the continuing evolution of the airborne systems and launch site ground support systems.

From 1998 through 2003, he was the director of technical management and chief system engineer



December 2014 launch of Orion Capsule test flight on the Delta IV heavy rocket. Orion will now be used to return humans (men and women this time!) to the moon in the coming year as a stairstep to missions to Mars.

for the Atlas program. He was selected as the Atlas program vice president in 2003 and Jim retired in 2015 as vice president of the Atlas and Delta rocket programs for United Launch Alliance.

"I spent the first couple years after I retired spending time with my grandkids," he says. "I'm also doing some volunteer work and built my dream workshop, primarily for woodworking, but also for working on cars and motorcycles."

He's not quite ready to ride a motorcycle off into the sunset, though.

"I have also been doing consulting work advising aerospace companies that are developing new and exciting systems, including one young company coming up on their first rocket launch soon."

It's a happy coincidence that the 70th anniversary of the Alworth Scholarship is during the same year as the 50th anniversary of the first moon landing.

"The Apollo 11 moon landing and Neil Armstrong were huge inspirations for me. I watched several of the 50th anniversary documentaries with family members and did the best I could to explain the significance of what happened to my young grandkids. My sincere hope is that the space program will again generate these sorts of inspirations for our nation's youth."



ALWORTH ALUMNI



Lifetime Achievement Awardees





Alve Erickson

Velcro. Alve Erickson proved that's what an Alworth Scholarship can lead to.

He graduated from Chisholm High School in 1947 and studied for two years at Hibbing Community College. In 1949, Alve

was one of the first recipients of the Alworth Scholarship and used it to earn a doctoral degree in engineering at Massachusetts Institute of Technology, or MIT, as it is commonly known. He became a professor at MIT until his retirement in 1965, having made his mark teaching engineering and physics.

Alve's philanthropic nature and love of teaching and engineering led him to help set up an engineering institute in Kanpur, India, in 1963, where he lived for nearly four years. It's

no surprise that he first got there via the Cessna plane he flew himself, a testament to his rugged Iron Range spirit. He and that plane eventually travelled the world.

Velcro? That came after retirement from MIT. Alve became a consultant and designed improvements for the (then) novel fastening material. He took the material from a fabric product to the plastic one we use today. He went on to develop a military use for Velcro, using it to fasten tiles to military vehicles, protecting soldiers from bullets and projectile bombs.

Alve is also credited with saving countless lives in the military by being one of the first team of engineers to develop and utilize robots to detect roadside bombs and land mines.

Today, at age 90, Alve Erickson lives in New Hampshire. He still loves to travel... and find ways to use Velcro. ■



June Hendrickson

It's often difficult to measure the ways people "pay back" the Alworth Fund for providing scholarships that made a difference. In June Hendrickson's case, though, it's a matter of simple division – which is exactly what you'd expect from a longtime math teacher.

She turned four years of scholarship-funded education at UMD into 61 years of furthering the impact education has on others in Hibbing. That's a nice 15.25-to-1 return on investment!

A graduate of Duluth Denfeld, June received one of the first Alworth scholarships awarded in 1949, then earned a bachelor's degree in mathematics elementary and secondary education from UMD. She also received a Master's Degree in Mathematics Education from the University of Minnesota.

For 44 years between 1951 and her retirement in 1995, June taught school in Hibbing, where she introduced technology into the elementary classrooms and created the Hibbing Academic and Talented (HAT) program. After she retired, she served on the Hibbing School Board for 17 years.

Along the way, her dedication did not go unnoticed. June was chosen as Minnesota Teacher of the Year in 1966.

She was named one of the top 100 people who most influenced Hibbing in the 20th Century. The City of Hibbing even declared a June Hendrickson Day.

We're not done! June was honored by the Minnesota State School Board Association and was recently awarded the Hall of Service & Achievement by the Hibbing Historical Society. She received the Distinguished Alumni Award from UMD.

June also kept busy - that's an understatement - as a member of First Lutheran Church, Hibbing Book Review Club, AAUW, Delta Kappa Gamma and other organizations. She volunteered for Meals on Wheels, the Hospital Auxiliary, the Mesaba Concert Series and managed the Hibbing High School Historical Room.

June embodies all the hopes and dreams of Marshall W. Alworth, whose scholarship didn't help only her. The 15.25-to-1 ratio is not correct, not even close. One person has positively touched the lives of tens of thousands of people. Thank you, June.





Dr. Bill Jacott

Duluth-native William Jacott, MD, is nothing if not loyal – to his profession, patients and anyone or anything that helped shape his adult life.

That includes the Alworth Scholarship, which he used in 1961 to attend medical school at the University of Minnesota Twin Cities. That came after growing up in the Chester Park area and graduating from Central High School.

He didn't forget about the Alworth Scholarship after graduating from med school, though. He became the first recipient to serve on the Alworth Scholarship board - which he continued to do for 33 years.

Dr. Jacott said he took great care in reading scholarship applications and helping create new students of science, technology, engineering and medicine. "I was in their same place myself and saw what students have to do and how debt can affect whether they even can stay in school," he said.

As a teenager, he worked at a drug store. That's where he learned that medicine could be an avenue for him.

He did his pre-med work at UMD. "I felt strongly, and I do today, that communication is a very important part of medicine," he said. That is why he majored in speech and minored in political science.

People who meet Dr. Jacott always note his genuine smile that conveys a clear love of helping people. His contributions and career highlights are many:

He spent 20 years in private practice in Duluth. During that time, he helped develop UMD's medical school, founded the family practice residency program, and served as Chief of Medical Staff at Miller Dwan.

He served as the University of Minnesota assistant vice president of health sciences and in the late 80's was part of the original committee that set up UCare Minnesota. Dr. Jacott served five years as board chair of the innovative UCare program, which focuses on providing health care to the underserved and elderly.

He was one of six Minnesota delegates to the American Medical Association (AMA) and was elected to the Board of Trustees of the AMA. He was also appointed by Governor Wendell Anderson to the Minnesota Board of Medical Practice.

Whew! Dr. Jacott certainly provided a direct benefit to humanity, something Mr. Alworth specified when he created his scholarship program.

Even though he served on high-profile boards and received many awards – including numerous honors from the American Medical Association and the President's Award for Outstanding Service from the University of Minnesota – Dr. Jacott's focus never strayed from basic care.

"Delivering over 800 babies," he said when asked what he's most proud of. "It's an amazing process to see life come into the world."

Dr. Jacott retired in 2004 and lives in the Twin Cities area with his wife, Judy. They have three children and six grandchildren. (We'll have to ask the good doctor how many of them he delivered!)



ALWORTH SHOOTING STARS

Mr. Alworth made it possible to both look at stars and help develop them.

The majority of the Alworth family's wealth came from lumber and mining industries on the Iron Range. In 1949, as a memorial to his parents, Marshall W. Alworth with an initial investment of \$10,000, created the Marshall H. and Nellie Alworth Memorial Fund Scholarship at a time when that wasn't common. Of the 11 scholarships awarded that first year four of them were women.

You might say his commitment to education was out of this world, because he also provided funds to build the popular Alworth Planetarium at UMD. (Maybe even young Jim Sponnick went there on a grade school field trip.)

This scholarship award amount is now \$20,000 per student. That amount provides extra breathing room for students to focus on studying rather than worrying



about tuition. Sixty or more students are awarded each year. The annual capital outlay is \$1.2 million.

The more than 5,100 students who received Alworth Scholarships totaling over \$52 million during the past 70 years are just the start. With a wisely-managed trust that stands at \$34 million in 2019, we're planning to invest in our region's youth for a long, long time. ■



"We are hopeful that the over the years the corporation may assist financially in the development of many high grade scientists and through them may be of substantial benefit to humanity."





- Marshall H. Alworth, August 7, 1949 Duluth News Tribune



Shooting Star #1: Hailey Antilla - Can't stop



A conversation with Hailey Antilla will wear you out. As she ticks off her daily routine and what drives her, one wonders if she found another dimension with more than 24 hours in a day and no one sleeps. "I've been doing a million things since I was 10," she said. She laughed at the notion of herself as a shark in the ocean, constantly on the move. Nothing stops her forward motion.

Despite earning an Alworth Scholarship to help her focus on studies at the University of Minnesota-Duluth, she chooses to work while attending college. She can't help herself. She's worked since she was 15 and still loves it, she said. "I tried not working," she said, "I drove myself crazy."

Perhaps this is all because of trauma at the age of 8. She and her parents were in a car accident. She recovered OK, but her parents suffered injuries that would nag them for years. At one point, Hailey was her mother's caretaker as she suffered debilitating back pain.

The accident and the aftermath "taught me to never take life for granted because it can change in a quick moment," she said. "It also showed me how much I love taking care of people, which guided my decision to be a doctor." Cancer has run through her family. Another reason she has vowed to become a doctor to fight this disease. Studying science fascinates her because "you never quite know what is going to be discovered."

Her interest in health care led to working at a hospital while attending Crosby-Ironton high school working in housekeeping, dietetics, to dealing directly with patients.

During her freshmen year of college, she continued working hospice, dietary and other nursing at St. Mary's Hospital in

Duluth and during the summer at Essentia Health in Brainerd.

During her sophomore year at UMD, she will be employed as certified nursing assistant on the cardiac unit at Essentia St. Mary's, helping patients before and after surgery while attending school full-time.

It was a rough first year at college, she admits, and always being on the go soothes some of the hurts she finds at home. Her parents have divorced, and she's dealing with a younger brother who finds home life difficult. She goes home often to be with him and she has "embraced extended family and friends" to strengthen her support system and continue her journey toward her goals.

She said she couldn't have made it all work without the scholarship. "It allowed me to work less to be of support to my family." Hailey keeps on, following an aunt's advice on dealing with those who think she can't reach her dream. "Prove them wrong," the aunt said. It's Hailey's mantra each day as she sets

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ALWORTH SHOOTING STARS



Hailey Antilla continued...

about planning her hours with sticky notes, daily lists, paper and phone planners. Nothing stops her forward motion.

She's careful to note that she does find time to relax, although her first example was exercise at a gym. She laughs again. Hiking, hammocking, the lake. "I spend time with friends," she said. But they would be quick to note that she is "a very busy person."

Downtime feels like procrastination, she said. "I love to learn."

The promise she lets people know is that she will "always try my best." She hopes that someday that will lead to her parents being proud of her for making it.

Knowing Hailey, she'll do that and much more. ■

Shooting Star #2: Noah Squires - Doing what he loves



High schools in the Alworth Scholarship region in northern Minnesota would do well to increase post-secondary education participation among their graduates by making a

Noah Squires poster. It would show him gleefully at Michigan Tech University (MTU) trying to create the perfect snowmobile. He's living a dream parlaying his distinct north woods interests with higher education.

Noah is living a snowmobiler's dream. His enthusiasm shines through as he technically explained what he did at Polaris this summer. In the engine validation department, he "supported the testing and validation of snowmobile and on-road motorcycle engines and worked on changing the dyno hardware and software to a new system."

It's a long way from tooling around on his sled as a kid. "I have been able to expand my experiences far beyond what I was aware existed in this area of engineering," he said. "The summer (jobs) have also allowed me to gain some very valuable experience as well as build some great connections."

He graduated from Itasca Community College free from any debt and with high honors. "It gave me the right start that I needed to be where I am now," he said. "They emphasize hands-on learning as well as self-teaching, which have both paid huge dividends when I transferred to Michigan Tech."

Noah says with the help of the scholarship, he can spend time on the engineering and design teams. "I do not work during the school year," he said. "This has allowed me to devote the time I need to do well in school."

His favorite part of the school year at MTU is working on the SAE Clean Snowmobile Challenge team, "Clean Snow," for short. It has teams from a host of colleges taking a stock snowmobile to reduce its emissions and noise outputs while increasing fuel economy. And

they have to do it while preserving the riding excitement demanded by snowmobile enthusiasts.

"Being on the team has given me the most hands-on experience I have had at MTU," Noah said. "I've been able to learn how to perform engine calibration, emissions testing, noise mitigation, component design and validation. This next school year I will be taking over the engine team lead." His team placed fourth at last year's competition.

It all comes back to the Alworth Scholarship. "Having the time to be involved with Clean Snow and community service projects and at school has given me the skills and experience that make me appealing to employers," he said.

Noah is a 2015 graduate of North Woods High School in Cook. He is a mechanical engineering major at MTU and will graduate spring of 2020.

He has some advice as he gets closer to graduation. "Get as much hands-on, practical experience as you can. I have learned that gaining that type of experience is equally, if not more, important than having a perfect GPA. I have really made a point to pursue the things I am interested in at school. You have to make your career what you want it to be."

► How To Apply:

Go online to www.alworthscholarship.org to fill out the application.

Applications are accepted from November 1 to January 15. Recipients receive \$20,000 distributed over eight semesters providing they maintain our eligibility requirements in a STEM field of study.