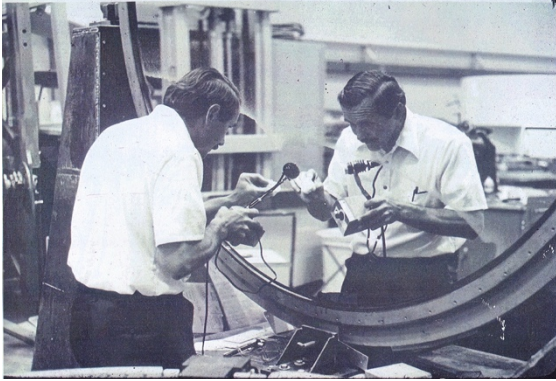


## Robert Breault, PhD, 1979



### **What influenced your decision to attend graduate school at OSC?**

From an early age, I knew I wanted to do space-based research, stemming from a childhood of building small rockets and launching them. I was a fighter pilot when I applied to UA's Steward Observatory in 1969 to study astronomy. Their fall class was full, so they suggested I apply to the newly formed Optical Sciences Center. The plan was to switch to astronomy in January 1970 but, once at OSC, I stayed.

### **What do you wish you would have known your first day of graduate school? Was there anything you wish you had done to prepare more for graduate school?**

When I arrived in Tucson, my wife, Judi, and I drove to campus. As we got to University Blvd., I was taken aback at the sight in front of us—an enormous hole! They had just begun excavation for where OSC's building was to be completed two years later. Immediately, doubts flooded my mind—I had left a promising career in the Air Force, and there wasn't even a building yet!

### **Which classes did you find most enjoyable? Which ones did you find most difficult?**

The field of optics was going through a dramatic evolution after the invention of the laser, and Aden Meinel had hired professors with excellent credentials and unique personalities. None of them displayed a negative egotism. Dr. Roland Shack, while academically the most intimidating, was remarkably humble and kind.

### **Was there an individual (professor, advisor, staff, friend, family member) who played a particularly important role in your education?**

I would have to say that almost all of the first 15 professors at OSC played a significant role in shaping my approach to optics. They were pioneers in the field of optics, and most of us graduate students thrived under their mentorship.

### **What was your research while attending OSC?**

There's a story I like to tell on how I ended up working as a research associate for Dr. Shack. One morning in January 1972, outside of OSC, Dr. Shack stopped me and asked if he could have a moment of my time. Of course, I replied, 'Yes, sir.' He then began telling me about a proposal he had written to NASA to do a stray light analysis of the Large Space Telescope (the Hubble). The contract had been awarded to OSC and Dr. Shack wondered if I might like to work as a research associate on the project. The stipend was \$9,200 a year for 20 hours a week, and included tuition and medical insurance for me and Judi—who was pregnant with our first child. When he asked if I would accept the appointment, I immediately replied, 'Yes, sir!'

### **What was the cost of rent in Tucson while you were in school?**

When Judi and I arrived in Tucson in 1969, we bought a 3-bedroom house for \$18,000. My parents had loaned us \$6,000. My monthly payment, including insurance and taxes, was about \$150/month.

### **If you owned a car during graduate school, what year and model was it?**

Amazingly, I still have the car that I owned when I was at OSC—a 1964 Ford Mustang. But, Judi worked at Burr Brown near the airport, so most days I would ride my bike to campus.

### **What was your favorite restaurant/student hangout near campus?**

A group of OSC student and professors used to meet for lunch every Thursday at the Pizza Hut on Speedway Blvd., east of the university.

### **What did you do for fun during your time in graduate school?**

I would jog to Himmel Park and I played intramural sports.

### **What was most memorable about your commencement ceremony?**

The commencement ceremony was held in McKale Center. We 'gowned-up' in the women's athletic building across from McKale. They gave me a 3x5 card and told me to write my name on it, then hand it to the 'reader' as I walked up on stage. I

laughed— this felt like almost the same thing that my mother did my first day of kindergarten—and made me feel as if from my very first day of school to my last day in school, I had not made much progress!  
When it was time for my row (the third from the front) to proceed to the stage, I realized I had left my name card tucked inside the program on my seat. I held up the line asking someone in the fourth row to hand me the program. The lady coordinating the procession shook her head and mumbled, ‘the professor type.’

**At the time of your graduation, what were the most sought-after jobs/most popular industries/most popular companies?**

Aerospace related jobs. The Cold War/SDI/Star Wars was hot, and many patriotic Americans felt an obligation to do their part. Lockheed in Palo Alto, California, hired many of the early OSC graduates.

**What was your first job after graduation?**

In 1975, I had formed a sole Proprietary company, Breault Research Organization (BRO). It was the first local spin-off from OSC and, at the time of graduation, BRO had a \$80,000 contract.

**What was the most significant world event during your time in graduate school. How were you affected by this event?**

Perhaps not ‘world’ events, but the job-offer from Dr. Shack and my work on the Hubble rate up there as contenders!

**Was there a campus or community event in Tucson that was especially important to you?**

There were a few, including the annual OSC Saguaro National Monument foot race; the Fall picnic at Fort Lowell Park and the Thursday lunch at Pizza Hut. At each of these events, there was a special bonding of the students and professors. There were no status/rank issues. We were very closely bound as a unit.

**What advice would you give to this year’s graduating class?**

Remember that each person you encounter has something of value to offer if you pay attention. Take smart risks and do not dwell on financial ups or downs. Sometimes say, ‘no,’ but not out of fear. Go out into the world with enthusiasm and use the skills you have to make a difference. OSC has given you much more than just an academic education, you now are a part of a very special community.