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A Smart Way to Begin a Civilian Engineering Career in the U.S. Air Force

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The U.S. Air Force has an entry-level professional development program for civilian scientists and engineers called PALACE Acquire (PAQ). The program was established to heighten the Air Force's ability to maintain the leading edge in today's technology-intensive environment by hiring dynamic, creative, and innovative scientists and engineers. This article describes the PAQ program for science and engineer professionals, the qualification requirements for the program, and the benefits to Air Force organizations that participate in the program.

In today's information technology age, good engineers are at a premium. Companies nationwide are facing the challenge of attracting and retaining qualified engineering professionals. The U.S. government's challenge is even greater as they must compete with industry. When recruiting college graduates, one *carrot* or recruiting advantage that the Air Force has over industry is its PALACE Acquire program for scientists and engineers.

I recently had the opportunity to become trained as a PAQ recruiter and thought CROSSTALK would be a great vehicle to get the word out to others in the Air Force who may also be facing challenges in recruiting entry-level engineers. Hence, this article is intended to help others in the Air Force understand the PAQ program better and the variety of benefits that it offers the employee as well as the hiring organization. In addition, many undergraduate engineering students through their college coursework are exposed to CROSSTALK. Hopefully, this article will also reach those who have not yet made a career employment decision.

PAQ Program for Scientists and Engineers

Science and engineering professionals provide a broad foundation of expertise required to develop and support the Air Force's technological needs. To sustain the national defense effort on the leading edge of explosive technological advancement, the Scientist and Engineer Professional Development Program provides an extensive two- or three-year training program.

PAQ program participants with a bachelor of science (BS) degree are placed in a three-year training program. During the first and third years, the participant works full-time obtaining practical on-the-job experience. During the second year he or

she pursues full-time graduate study. Participants with a completed master of science (MS) degree or a BS degree supplemented by one year of professional engineering or science experience, enter a two-year work experience training track.

A broad range of science and engineering disciplines support the PAQ program. These include the following:

- Aerospace Engineering
- Computer Science
- Electrical Engineering
- Electronics Engineering
- Mechanical Engineering
- Operations Research

Individuals with a completed BS degree enter the trainee program at the GS-07 level. A grade point average of 3.05 and a GRE score of 1000 are required to ensure acceptance into graduate school. Individuals with a completed MS degree, or a BS degree with one year's experience, enter at a GS-09. Successful completion of either the two- or three-year track results in a promotion to the GS-12 journeyman level. Career promotions are based on satisfactory completion of specific training criteria as outlined in a formal training plan. For additional information on government employment grade structures and salaries, see the Office of Personnel Management web site at www.opm.gov.

What Sets PAQ Apart?

Three-year PAQ participants have their graduate salary, tuition, and books paid for by the Air Force. They also earn their salary at the same time they are a full-time student. What a great deal! The participants' jobs are to go to school. They must take job-related courses, fulfill MS degree requirements, and be in school for one academic year. If unable to finish a degree program in one year, they are encouraged to finish on their own time.

By attending graduate school, the par-

ticipant incurs an obligation for continued employment as they will be required to sign an agreement to continue in federal service for three times the length of the total academic training period.

Participants also have access to a full-range of recreational and support facilities open to Air Force employees such as social clubs, hobby shop, fitness centers/gyms, golf course, credit union, library, and family support center to name a few.

PAQ Package: A Quick Look Qualification Requirements Summary

Participants in the Air Force's PALACE Acquire program require the following:

- U.S. citizenship.
- Geographic mobility.
- Overall undergraduate GPA = 3.05 or greater.
- GRE verbal and quantitative score = 1000 or greater.
- Degree from Accreditation Board for Engineering and Technology, Inc. (ABET) approved institutions.

Employee Benefits

PAQ participants are full-time permanent civil service employees receiving the same benefits and entitlements as most permanent full-time federal employees. These include the following:

- 10 paid holidays.
- 13 days vacation (0-3 years of service); 20 days (3-15 years); 26 days (15+years).
- Sick leave, up to 13 days annually.
- Performance based bonuses and time-off awards.
- Health and Life Insurance options.
- Federal retirement, Social Security, and Medicare.
- Thrift Savings Plan (civil service 401(k) plan).

Organization Benefits

The organization that trains a PAQ employee benefits as well. In particular, the employee's time and training for the two- or three-year internship is paid for by the Air Force's central salary account. In other words, there is no cost to the local organization that is responsible for training and developing the participant. Another big benefit is that the participants are highly motivated, innovative, and dynamic scientists and engineers.

What Participants Say

Patrick Warren, who earned his master's degree from Ohio State University through the program in March, and who is also an engineer in the Aeronautical System Center Engineering Directorate, says that the benefits of the PAQ program were just too good to pass up.

Anthony Spohn, who is on course to attend Ohio State in the fall to pursue a graduate degree in Aerospace Engineering, has not seen anything like this program before. He says, "Other than the government, I've never seen a program like this

anywhere. Boeing, Lockheed, yeah, they'll reimburse you after you go to class, but they aren't going to pay your salary while you're gone. They aren't going to pay for your education and books while you are going to class. I don't have to spend any money out of pocket, and I get a salary. You don't get this anywhere else that I've seen."

The opportunities for education and training were especially important to Spohn. "It was the ultimate driver in my job seeking."

Conclusion

The U.S. Air Force employs more than 15,000 civilian scientists and engineers working in laboratories, test centers, system development offices, and depots. Many engineers directly support pilots, crewmembers, aircraft, spacecraft, and weapons systems. As a civilian engineer in the Air Force, I have found the opportunities in my workplace to be just as challenging and rewarding as those I had when working for a defense contractor. I am proud to be associated with the PAQ program and hope that other Air

Force managers will see the value in this program as well as engineering students soon to make a career decision. ♦

Additional Information

For more information or for an application to the PAQ program, please contact the PAQ administrator at Headquarters Air Force Personnel Center, Civilian Career Management Directorate at Randolph Air Force Base, Texas.

HQ AFPC/DPKCW

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www.afpc.randolph.af.mil/cp/secp/palacq.htm

Reference

1. Air Force Instruction-AFI 36-602 Personnel Civilian Intern Programs, July 25, 1994.

About the Author



Tracy Stauder is a technical program manager for the Air Force's Software Technology Support Center (STSC) at Hill AFB. She supports the STSC in its efforts of publishing CROSSTALK, hosting the annual Software Technology Conference, and offering hands-on consulting. She has a master's and a bachelor's degree in electrical engineering, from Southern Illinois University. She has worked for the Software Engineering Division at Hill AFB in Utah for the past eight years. She has also worked as an avionics engineer at McDonnell Douglas in St. Louis for eight years.

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W e b S i t e s

Software Technology Support Center

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Test and Measurement World

www.tmworld.com

This is the on-line version of Test & Measurement World and Test & Measurement Europe, which cover the electronics testing industry, providing how-to information for engineers who test, measure, and inspect electronic devices, components, and systems.

Software Engineering Institute

www.sei.cmu.edu

The SEI is a federally funded research and development center sponsored by the U.S. Department of Defense to provide leader-

ship in advancing the state of the practice of software engineering to improve software quality. The SEI staff has extensive technical and managerial experience from government, industry, and academia.

Institute of Electrical and Electronics Engineers

www.ieee.org

The IEEE promotes the engineering process of creating, developing, integrating, sharing, and applying knowledge about electrical and information technologies and sciences. IEEE provides technical publications, conferences, career development assistance, financial services and more.

American Society for Quality

www.asq.org

The ASQ is dedicated to the ongoing, development, advancement, and promotion of quality concepts, principles, and techniques. ASQ has more than 120,000 individual and 1,100 organizational members.