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Donald E. Smith

FORUM

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ABSTRACT

Collegiate aviation programs are in jeopardy as administrators lacking aviation experience or an understanding of the aerospace industry attempt to mold these specialized programs into traditional academic programs. Bereft of aviation experience, administrators are simply doing what they know--with the best of intentions.

Collegiate aviation programs provide well educated safe and professional pilots for the aviation industry. One of the leading universities in the field can boast that one of every four cockpit seats in the airline industry is filled by its graduates. The Southern Association of Colleges and Schools (SACS) accrediting agency points out collegiate aviation programs should be treated differently than traditional academic programs with respect to faculty terminal degrees. The terminal degree criteria for aviation programs is the master's degree. SACS recognizes the strength of a good aviation program lies in instructors who have extensive experience in the aviation industry rather than those with impressive academic credentials. The best aviation programs in the United States have attained and maintained their status by doing just that: hiring aviation professionals with advanced degrees, usually technical master's degrees. This is a very sound practice. Appropriate technical areas are covered well, but not too deeply as would be required in an Aerospace Engineering curriculum. The instructors know what depth of knowledge is required to not only train an aviation professional but also what is required to keep them alive. By word of mouth, information regarding these programs has spread, bringing in thousands of serious aviation oriented students.

There is an increasing attempt to mold these successful programs into traditional academic models. These initiatives are usually the consequence of the policies of college or university administration officials with little or no experience in aviation. They speak of attaining status as a mature or traditional university and insist upon hiring faculty with doctorates. It does not seem to matter what type doctoral is hired, as long as there is a D somewhere in the title. This is ironic in that some traditional universities are moving in the opposite direction realizing that the Ph.D. is not the be all and end all.

The first problem with the doctoral approach is the lack of a doctorate degree in the aviation field of study. One could argue a Ph.D. in Aeronautical or Aerospace Engineering could handily teach a pilot oriented Aerodynamics class, but without experience in the field, the approach may tend to be theoretical instead of practical. In addition, one would have to ask why this person would even want to teach in an aviation department when an Aerospace Engineering department would offer greater challenges in his or her field.

Suppose an experienced aviation department faculty member took a sabbatical and obtained a technical Ph.D. It is doubtful their approach to teaching pilot oriented Aerodynamics would change much. Would they change from an algebra-based approach to a calculus-based approach? That is unlikely, since he or she knows from their aviation experience, professional pilots do not require that depth of study.

An aviation department could staff itself with instructors holding the more easily attainable Education Doctorate. However, it is likely the department would turn into a laboratory of teaching method experimentation as was the case at The University of Illinois, where the once thriving Institute of Aviation was reduced to using the flight department as guinea pigs for research projects. In this sort of environment, it is unlikely the students would acquire the knowledge needed to become aviation professionals.

In addition to a lack of a doctorate in the aviation field, there is also a scarcity of experienced pilots with doctorates. However, many military retirees with exceptional flying experience hold technical master's degrees. Finding a retired airline pilot with a doctorate is next to impossible and it is unlikely they would come out of a very comfortable retirement to teach.

Again, the credibility of experienced aviators is what draws students to successful aviation programs. Credibility is important. A colleague related how his wife, a secondary school teacher becomes upset when theorists with high academic credentials try to revise teaching methods with no experience in the classroom. Experience is important.

Aviation programs are in general, looked down upon by both faculty in other academic programs and non-aviation focused administrators. Aviation programs are thought of more as trade schools rather than traditional academia. That analogy could easily be applied as well to medical, dental or law schools. Which classes would be more valued in these institutions - those taught by experienced instructors or those taught by an attorney lacking in courtroom experience or a medical doctor who has never practiced?

This disdain, by administrators specifically, has led to difficulty achieving promotion and tenure in aviation programs despite professional and academic growth and service by the applicants. Administrators insisting on hiring doctorates are denying promotion and tenure even to those holding doctorates in their aviation programs. How do they expect to attract additional faculty with this sort of track record? These policies and processes are self-destructive and in the long term, these programs will wither on the vine. Many of the leading institutions with aviation programs financially rely heavily upon these enrollments. In institutions where these destructive policies prevail, decreases in aviation enrollments will occur. There are already universities where this has occurred in some form. At Oklahoma State University, the former Department of Aviation and Space Education is now part of the School of Applied Educational Studies due to the reorganization of the Department of Education into schools. One is hard pressed to even find mention of the program on the university web site. A graduate of Ohio State University relates how in the last several decades the 'theorists' have taken over the flight program and it is now a shadow of what it once was. These questionable policies will not only dissuade potential faculty position applicants and promote lower enrollments; they, in conjunction with flawed up or out policies, if left in place, will literally decimate aviation faculty staffs. Morale suffers greatly under these policies. If there is no apparent hope for promotion or tenure, present faculty members if not physically ousted by the process will certainly look for employment in some other field. Experienced aviation professionals should be sought, hired and appreciated in these programs. They should be promoted and tenured when they have grown professionally and met the requirements of their program. The emphasis should be on the requirements of their program, not those of a liberal arts or an aerospace engineering program.

Trying to stamp the traditional academic cookie cutter on aviation programs will not work. The programs will fail. The aviation industry will be deprived of a valuable source of safe and professional pilots. University budgets will suffer when enrollments decline because Ph.D.'s with no practical experience fill the teaching roles (if they can be found). There is a real need for administrators to have aviation experience. Only then will the correct priorities for aviation programs be re-established. Without this, administrators from purely academic backgrounds will try to do that which they have experienced in the past: that is to transform aviation programs into traditional academic programs. It is all that they know and they do so with the best of intentions.❑

Donald Smith holds a Master of Science Degree in Aeronautical Engineering from the United States Naval Postgraduate School and a Bachelor of Science Degree in Naval Engineering from the United States Naval Academy. He is a graduate of the National War College and the Navy Top Gun Fighter Weapons Course. He is currently an Associate Professor of Aeronautical Science at Embry-Riddle Aeronautical University where he serves on the Senate Faculty Development and Benefits Committee and on his department's Curriculum, Tenure and Strategic Planning Committees. He is a coach of the Embry-Riddle Crew Club. He was the first mayor of the city of DeBary, Florida. His flying experience includes twenty years with the United States Navy flying fighter aircraft and first officer on the Boeing 727 with Eastern Airlines. He also served as the Defense Attaché to eight west African countries for two years where he piloted a Beechcraft Super KingAir on diplomatic missions.