The Education of Aircraft Maintenance Personnel

by Roger Beebe

If you look at job-competition posters at private and public institutions these days, you will find an increase in the number of jobs that require a university degree. This is very noticeable at Transport Canada and other federal departments, and should send a strong signal to aviation personnel about the direction of Canadian cultural values. Many countries, including Canada, have now made higher education a requirement for government positions. A key question is how much more pervasive will this requirement become? It is very easy to see a split developing in society between those who have university education and those who do not. So how does this affect aircraft maintenance technicians (AMTs) and engineers (AMEs)?

Basic requirements

In the early years of aviation, AMTs and AMEs were not required to have college diplomas or university degrees. Practical ability based on technical training and experience served them well. The development of the much more complex turbine-powered aircraft and avionics drove basic education requirements to be a high school diploma and, by the 1970s, community college or military programs had become the training norm. By the end of the 20th century, it had become a standard requirement to have a college education or the military equivalent. It was also discovered that education beyond standard technical subjects produced technicians better equipped to communicate their issues and understand the complexities of the modern working environment.

Dilemma

I have read that skilled trades across Canada can earn around $70,000 a year and the average university graduate makes around $57,000. What does this mean in relation to aircraft maintenance? Perhaps it means that money may be a bigger obstacle than a degree in attracting technicians to leadership roles.

The challenge faced by the designers of the maintenance technician training system of the last 40 years was to balance core educational subjects with technical skill training. Industry, for the most part, wanted technicians to start sooner, while some saw a need for further education. The educated technician would be prepared for leadership positions in industry and government. The issue was settled with the development of community college curricula.

Future

As the trend to requiring a university degree increases, more people will obtain education beyond the college level thus creating a system in which a university degree is a staffing expectation. Technicians who consider the best options for their careers, might seriously consider working on a degree. There is a great need for skilled technicians, and I believe technicians will now need to pursue continuous learning throughout their careers. Management and unions can help by encouraging continued education. Technicians without additional qualifications simply will not be able to get into the decision-making positions that decide the issues that affect their careers.

Conclusions

It is obvious to me that bias exists in Canada against those without a degree and I believe that bias will increase in the future. One reason is that universities teach in many areas that sometimes overlap college programs. I believe that today's pilot, AME or technician who wants to advance in aviation beyond the front line needs to consider getting a university degree in something related, as well as obtaining the requisite technical training. Whereas people without a university degree have been promoted to senior positions in industry and government in the past, I think that will be rare in the future.

I also worry that the maintenance practitioner viewpoint will be overlooked at the decision-making table. Who will be there to speak about aviation maintenance? Will it be the people who have a practical background and experience in the sector? ■

*Now retired as Regional Director, Prairie and Northern Region, Transport Canada after 10 years in the position, **Roger Beebe** also held other positions in his Transport Canada career, including Director, Airworthiness Western region, and senior positions at Ottawa HQ. His civil aviation experience includes Air Canada and Wardair. He also served six years in the Royal Canadian Air Force, mostly in Europe at 1 Wing Marville, France, and in Lahr, Germany. His aircraft experience includes B747, L1011, DC-8 series, DC-9 series, B707, B727, Twin Otter, Single Otter, Bristol 170, Viscount, and many 1960s military fighter aircraft, especially the CF-104.*

*He holds an AME licence in the categories M1 and E, and CAMC certification as both an Avionics Maintenance Technician and an Aircraft Maintenance Technician. Roger now lives in Manitoba where he is president of **Plane Talk Consulting**: 204-388-6884.*