

Personnel Certification- Why is it the Foundation of aviation Maintenance?

History, AME licensing, CAMC beginnings, Today, Future

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History

It is very appropriate during the year of 2009 celebrating 100 years of powered flight in Canada that we think a bit about the trade side of aviation. Hopefully, we all can agree that the first designers and pilots are rightly celebrated during the year. We see flight enactments, museum displays, many newspaper and magazine articles, videos and discussions that acknowledge the debt today's aviation owes to the pioneers. It is perhaps a good time to think about the relatively unknown and largely unsung people behind some of the workmanship that helped aviation become what it is today.

The extensive system of personnel certifications that we have in aviation manufacturing and maintenance can be traced back many generations. Individuals have been specializing in crafts for many thousands of years. It was probably quickly noticed who was the best at what activity and your personal work quality became your selling feature. In classical times trade associations and educational and training system were set up. The vast majority of those trained went through some sort of apprenticeship. As societies became more literate and scientific more formal education and recording of one's qualifications became a practice. These ancient practices laid the foundation for the European medieval Guild systems which have lasted until today. They both trained and certified the individuals in the trade. In today's world the certification side has tended to be carried out by state bodies or those third parties delegated to act on the states behalf. The labour contractual standard side has basically been absorbed into the modern Union movements and labour laws.

Much of the ancient systems crossed the oceans to Canada and set the stage for the current practices. Aviation was able to build on this and used many examples from the marine and railroad world that were ahead of us, especially the marine side of transportation. I suspect not much thought was given to trade qualifications by early aviators but they more likely did know who was a good machinist, welder, by their reputation and history. The First World War with its military requirements soon led to more formal aviation training and certification. By 1919 we had the first attempts at the regulation of aviation, you can be certain personnel certification and licensing was not far behind. Rolland Groome was Canada first licensed pilot in 1920 and Robert McCombie soon was the first licensed AME. The two licences were issued in Regina, Saskatchewan, my home province.

Why Licensing, why AME???

The Air Engineers of the early years came from the apprenticeship programs of the time. They were doing the majority of the work on the aircraft and were supported by a few other trades. As aircraft became more complex, especially during the Second World War, many new trades developed. Very few people saw this as anything but natural as the Air Engineer now known as a licensed Aircraft Maintenance Engineer, was still seen as technician and an Inspector. As time progressed it became

evident that the AME was backed up by a large number of personnel with very specific trade qualifications. By natural default the AME licence had become the trade standard in civil aviation and to that goal of being licence most technicians worked. The military continued for most of the last century to opt for a multitude trade approach, partly based on military needs and partly on a complex rank structure. Around the 1980s the military began to look at the civil model more closely. When I was in the air force in the sixties, I believe we had around 14 aircraft trades. When I joined civil aviation in 1969 we basically had 3, the general purpose AME, Avionics and sheet metal. There were others doing very important tasks, such as upholstery, painting, etc. but were not at the center of the hanger and flight line action.

Industry leaders in maintenance field had come to realize that something needed to be done to support the AME and to encourage others to become aircraft trades people by recognizing their skills. In addition, it would be necessary to have accurate and complete standards for all trades.

WHY PERSONNEL CERTIFICATION FOR AVIATION TRADES?

Before we discuss the beginnings of CAMC the body currently certifying trades for the Canadian Aviation system we should stop and think about why we need to do that. Some of the answer may be very self evident such as assisting managers in hiring new staff by using the certification standards as a basic requirement. Industry can better plan its future needs if they have a set of skilled and recognized trades to choose from. It also allows community colleges to plan their outputs based on some sense of what industry needs are.

The individual benefits from having a portable document that attests to their skill and knowledge. This allows easier movement across the industry. Unfortunately companies do come and go and having a document separate from your employer supports the individual. Not the least it adds a sense of pride in that people acknowledge and in fact Canada, acknowledges the skills by supporting the accreditation system. The fact that it works from determine basis education and training requirements though to company accreditation adds to a sound system. In addition, the pool of certified skilled trade's people supports the Licensed AMEs in their work inspecting and certifying aircraft.

Let's not forget international trade of which aviation contributes greatly to Canada's trade balance. Customers and regulatory bodies around the world can look to Canada and see a unified, across the country system, supported by Canadian governments and the industry. That is powerful tool when trying to sell Canadian manufacturing, maintenance and training around the world.

Birth of CAMC

Back in the early 1980's it became apparent to many aviation industry leaders that something needed to be done to ensure an adequate supply of human resources to the maintenance industry. John Mew, as Chief, Manufacturing and Maintenance for Transport Canada had created an Advisory Council to help him plan future AME licensing and training matters. The Air Transport Association of Canada was one of

the members of the council. Transport Canada is not responsible for aviation industry human resource planning but obviously has a vital interest. The Federal Department which had that responsibility was Employment and Immigration. John organized a meeting in Calgary which brought together EI, TC and all affected community colleges, some unions and industry associations. The Canadian military was also on board as they were determined to simply their extensive on aircraft trade structure and try to take more advantage of civilian technical training. They also wanted to see a better career path for those retiring from the military with a recognizable civilian trade document.

This was a watershed meeting regarding aviation trades in Canada. A previous study by AMEs Gerry Wolfe and Gordon DuPont had mapped out away forward for AME licensing; now the task was to deal with all the other trades. Transport Canada could not see itself licensing all the trades as that would really complicate the aircraft inspection release system. Some organization would have to take on the task of developing trade standards and accrediting personnel. Like most large and complex meetings many viewpoints were advanced and strenuously argued. AMEs were well represented and had concerns about Transport Canada's future intentions about the future of licensing, few AMEs wanted to return to the days of company issued license. Companies and unions were concerned about costs and about ensuring adequate standards for the unlicensed trades. All were concerned about the need to attract young people into aviation. The field of aviation was no longer seen as a lead industry that appeared to be taken by the informatics industry among others. Finally the Employment and Immigration Department stepped to the plate up and offered, in conjunction, with ATAC to fund a sector study of the need to developed trade standards and accredit the individuals. In the end the sector study recommended an industry council. Such a Council was formed and named the Canadian Aviation Maintenance Council.

Today

The front line AME of today is supported by a host of aviation trades. These trades work, for the most part, away from the flight line. In special cases they may be working on the flight line in their speciality but for the most part they are found in the hangers and shops. They can be on the airport or located in industrial parks and even far away from an airport. CAMC plays the largest role in certifying the trades in such categories as Aviation maintenance, Avionics, Maintenance, ----- list all camc trades.

Canada now has a thorough and complete system in place to support the aviation industry. Periodic audits of training establishments against well known standards should ensure well qualified technicians for the work today and in the future.

This fact is important when trying to sell Canadian Aerospace and Aviation products worldwide. It also helps to assure people that all the work is being done by qualified people. Qualified to national standards which can be audited. On an individual level the personal certification is something one can be proud of and is portable from employer to employer across Canada. It is also something to attract people into the industry. There have been a lot of very dedicated people working hard over the last 20 years or more to build the system. The work is not finished but a solid foundation has been laid.

