

KEYNOTE ADDRESS

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I am pleased to be invited to address today's meeting. In my mind, training has been a second-class citizen. It falls right behind safety in the attention it receives, and yet it is a key element to making the entire aviation system work. Unfortunately, we have focused on the more glamorous aspects of aviation. We are finally beginning to think more in terms of the complete system, but we have not traditionally thought in terms of the system as a whole, especially when it comes to training.

Many things about maintenance training are simple when you stop to think about them. On a day-to-day basis, however, we often forget how we are going to apply the lessons we learn in training. Now this lack is beginning to catch up with us. It is beginning to catch up with us because of several dramatic events which have attracted the public's notice. First, the well-known Aloha incident several years ago demonstrated the difficulties of inspecting for corrosion and metal fatigue. More recently, a British Airways plane had a cockpit window pop out and the two flight attendants had to hold the captain who was trying to keep from going out the window. What has happened all of a sudden? Are airplanes just beginning to come unglued? Airplanes are being flown much longer periods of time. Think about it. We are now flying airframes longer than we would have dreamed of 40 years ago. Take the good old workhorse DC-3. If you told someone at the outset that you were going to fly that airframe 80,000 or 100,000 hours, they would have laughed, but we have lots of airframes approaching these numbers. It should not be too surprising, then, that we are beginning to see some major mechanical problems that need to be addressed. Catastrophic events are not the only problem. Less disastrous problems are day-to-day facts of operational life affecting reliability for dispatch. Bottom line -- if you can't put the airplane in the air, you can't make money with it.

Technology also drives training requirements. Problems with evaluating technology are tremendous. How are we going to select people and train them to deal with all of this new technology? Are we, you and I, the kind of people who are prepared to deal with young students coming through the schools? How many of you are involved with training schools? Some very smart graduates are coming out of these schools. Part of the problem may be that we have a "make them like me" mentality. "I am the best maintenance instructor." and "I will design a curriculum for these students and put it into place and we will run them through that training curriculum. Then we will put them on the job, give them on-the-job training (OJT) for the fine details. Then we'll haze them the rest of the way so they look like me." With the new technologies, we cannot afford to do this. The "make them like me" philosophy will obstruct the productivity of these creative, smart young people.

Technology will determine where we go next. We must see that young students are raised in an environment using that new technology. We also must cope with the older people who have lots of experience but cannot figure out the new technology. We are going to have to grow into the new technology, learning as we go. There will be many new airplanes with the "glass cockpit" technology and, at the same time, there will be many old airframes flying as well. With this situation, we may have to make a choice, because there will be a limited amount of time in the training curriculum. Can we, in fact, train maintenance people all the way from Jennesys to jets, from fabric to aluminum to high tech alloys and digital electronics? Is this going to be a learn-from-your-mistakes training program? Can you really afford to make mistakes with the kinds of airframes we are flying now? If you lost a small airplane or an airliner with 20 to 25 people on it 40 years ago, it would get some notice. But if you lose an airplane now with 300 to 400 people on it, it will get a lot of notice.

How are we going to recruit people into the maintenance field? Is tightening the bolts as glamorous as flying the airplane? I overheard an interesting discussion earlier this morning about salaries. The salaries of maintenance workers can easily be competitive with other salaries in aviation, yet the maintenance business has not been as alluring. I believe there are ways we can make it more attractive.

What types of skills will the new technicians need? Do they have to be the mechanical, hands-on types of skills, or will they have to be the problem-solving, conceptual, electronic skills? Will they be people who can read and absorb large amounts of technical information? If you look at the amount of data and the technical specs for just about any airplane these days, they fill entire shelves.

How are we going to accelerate people through the current technology so they can move on to being supervisors and instructors? How are we going to select supervisors? Perhaps supervisors are the real key to dealing with our maintenance issues. They are the ones who, after the student finishes his/her schooling and training, really determine how that mechanic is going to perform virtually for the rest of his/her career. A maintenance worker's exposure to his first supervisor is going to have a major impact on his performance for the rest of his career. What are these supervisor's going to be like? Will they be receptive to new ideas? Will they be patient? A lot of thought needs to go into the procedures for selecting and training supervisors.

There are two other issues that have potential impact for maintenance. One is the issue of medical standards. There really are no medical standards for maintenance people. Is good color vision important for a mechanic? Does it make a difference where the red wire goes or where the green wire goes? As we began recruiting Federal Air Marshals, we recognized the need to develop medical standards for them. Very strict color vision standards were required for the Federal Air Marshals. Why would that be? The answer is that if, for example, there is an electronically-detonated bomb device onboard an airplane, it makes a big difference where the red wire goes and the green wire goes. With that in mind, can we trust alignment of the digital cockpit and all its color displays to someone who does not have adequate color vision?

Another issue which your industry faces now is the aviation industry drug abatement program. It is a reality. We did not begin drug testing because of drug usage in maintenance, or because anyone demonstrated that there was a big drug problem in the aviation industry. Frankly, we have an industry drug abatement program because the public was scared. We looked around for drug-related incidents in the aviation industry, and they were hard to come by. I, for one, was not terribly enthusiastic about having another drug program to administer. Like many other people, I did not think there was a big problem in the aviation industry. However, when the mandated random testing program was started, we found a higher rate than anticipated. A detection and deterrence program is necessary and we, as part of the Administration, now are committed to the drug-free workplace.

In summary, we face many challenges as we move forward to foster our maintenance industry. How are we going to select mechanics and inspectors? How are we going to train them? What kind of people do they need to be? What type of background do they need to have? What type of culture are we going to establish for them? The culture we establish is going to be the principal influence on career and performance. Supervisors are the key. If you cannot pick good supervisors who will be receptive and patient and nurturing, your training program will fail.

I want to do all I can to support your programs. We at the Federal Aviation Administration will work hand-in-hand with you to foster aviation maintenance programs to meet the needs of the aviation industry and to assure the safety of the traveling public.