

What Now?

For the past year and a half, I have written about the human factors that affect our judgment, commonly referred to as the "Dirty Dozen". These human factors are alive and well in our work environment, impacting our professional judgment every day. As an industry, what have we learned in the last five years since we have initiated and moved forward with human factors awareness training?

In October 1998, leaders in the industry gathered with the National Transportation Safety Board to discuss the current state of human factors training - what we have accomplished and where do we go forward in the future with human factors training? The main discussion was about how to keep motivated and not to lose sight of this mission in our growing industry.

With turnover in our industry, including retirement of senior technicians, a lot of new, young blood is being introduced to the industry. This presents a recurring challenge to ensure that the valuable lessons of the past are not forgotten and relived as new errors or major incidents. The safety nets we have built over the past years must be reaffirmed and passed down.

During the October conference, most aviation companies who did not have a program appeared to come to the realization that some form of human factors training is needed to reduce maintenance error in their organization. Since most of the errors in maintenance that occur are human errors, it is becoming more apparent that training both management and technicians on how to avoid making human errors is a worthwhile effort.

In general, human factors training can lead to improved quality, a safer environment, and a more involved and responsible work force. More specifically, the reduction of even minor errors can provide measurable benefits including cost reductions, fewer missed deadlines, reduction in work related injuries, reduction of warranty claims and reduction in more significant events which can be traced back to maintenance error.

During the conference there were many questions and comments. A few thoughts on what is required for a successful human factors program, based on comments by those attending the meeting include:

- Management needs to understand the potential benefits of human factors training
- Management needs to allocate resources to plan, develop and implement a training program
- Employees need to see the support for the program from their supervisors (more than just lip service)
- Human Factors training provides a common language and understanding of what causes errors and how to prevent them
- Measurement of errors, through the creation of a data base is essential in order to identify trends for recurrent training requirements, to correct latent failures, and also a means to monitor progress

- Companies must be willing to change culture and procedures when required, otherwise employees will feel frustrated
- Companies have to develop a mission statement and a long term plan and goal for training support
- Define what everyone's role is to support the mission statement. What is in it for management and what is in it for employees?

Given the facts that 80 to 85 percent of aviation incidents are directly attributed to human error, an alarming trend has been identified. Per NTSB findings, maintenance is playing a major role in at least 50 percent of major aviation incidents recently as compared to a 25 percent role just a few years ago. What is causing the 100 percent increase? The maintenance community cannot take these figures lightly.

Today, more than ever, with the stress, pressures and demands for performance of individuals, the Maintenance Department has to be recognized for its professional level of work. We must be given the tools to work with, especially in regard to the Human Factors. The Regulations, give us the regulatory structure to comply with, and the Labour Code/OSHA providing workplace safety rules.

Maintenance personnel need Human Factors training and the insight it provides to help us understand our own work habits and those of our co-workers. We have to avoid the blame game and get down to the root causes. Human Factors Training will change a blame culture to a learning culture.

Implementing a human factors training program involves changing attitudes and behavior in employees, attributes which are difficult to change in individuals. But, with a little perseverance, as more people complete the program, they begin to speak a common language. Soon, behavioral change starts to be evident within the organization - changes that will provide long-term and lasting benefits. But, few companies are willing to open themselves up to such a culture change incorporating an open reporting culture and improved communications - many companies believe that they are "safe enough".

The results of providing human factors awareness training have been demonstrated in our industry. These programs have been strongly endorsed by the FAA, Transport Canada, the NTSB, the CAA, PAMA, NBAA, and many other government agencies and aviation organizations. However, many companies are still reluctant to make the commitment. They have a lot of reasons for not implementing human factors awareness programs. They want to continue to study the issue and approaches and talk about what should or should not be included in human factors training in their airline or repair facility. Isn't it time for less talk and more action?