

The Shot Peener

An International Newsletter for the Shot Peening and Surface Finishing Industry

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And much, much
more!

Making Air Travel Safer Through Shot Peening: Linda Goodrich

Linda Goodrich has been in aviation for over 30 years—she is a certified Airframe & Powerplant (A&P) mechanic as well as a multi-engine rated certificated commercial pilot. She has owned and operated two aviation companies: One was dedicated to fixing and flying commercial aircraft and the other was dedicated to the movie and commercial business with her North American World War II aircraft, an AT-6.

Eighteen years ago, Linda joined the FAA as an Aviation Safety Inspector and is now the top elected union official. She represents all FAA/Flight Standards' employees globally.

Linda accepted an offer from Jack Champaigne, President of Electronics Inc., to address the 2001 Shot Peening and Blast Cleaning Workshop as a guest speaker. Linda caught the attention of Jack with her proactive concern regarding the process of shot peening and the industry at large.

Linda shared a couple of her experiences at the opening of the conference. In one account, Linda noted a very shiny aircraft during an airport inspection. She discovered that a well-intentioned aircraft owner utilized shot peening, without any standards or training, to remove all the paint on the aircraft. Unfortunately, he also removed most of the rivet heads all over the skin of the aircraft and rendered the aircraft totally unairworthy.

Linda also shared the story of an accident investigation that led her to look into various parts of the engine that may have contributed to the uncontained failure of the engine. She found that the burner cans had been sent out to be cleaned by an uncertified facility who utilized shot peening to clean automotive parts and did the same for these parts. They came out looking like new. Unfortunately, they may have "looked like new" but the high inappropriate pressures and misapplication of the shot peening created stress in the metal that resulted in cracks and eventually a causal factor in a catastrophic failure.

"I personally have always been an advocate of proper technical data and training", Linda said. She



Linda Goodrich during her presentation at the EI 2001 Shot Peening workshop.

conducted many seminars but this process called "shot peening" was not understood by most large repair stations or carriers, or herself, she admits. It was seen more as a "cleaning" process, a "means to an end", which precluded "seeing" a problem with the end product prior to being placed into service.

Linda believes that education is the best means of prevention and was interested in hiring someone to educate mechanics on the proper use of shot peening. Linda was eventually introduced to Jack Champaigne through Ray Fontana, an industry consultant, who

heard that she was interested in shot peening training. Her research led to Electronic Inc.'s FAA approval to conduct seminars which enables attendees to get much needed guidance on the process and at the same time get credit towards the FAA's Aviation Maintenance Technician (AMT) Awards program. The AMT program encourages maintenance technicians to achieve high levels of education and rewards them by acknowledging that they are raising the bar of excellence in our discipline of aviation maintenance and promoting the highest levels of aviation safety. Many large companies are promoting their maintenance technicians based upon their participation in this excellent program.

Linda still felt there was more to do, so she contacted Ray Fontana and Jack Champaigne and suggested they help facilitate an FAA advisory circular on the subject of shot peening to ensure that the FAA gets the information directly to the AMT. Ray Fontana is now coordinating this effort, with the 3-M company and Boeing Aircraft Co. as co-sponsors, to ensure that the FAA expands its education programs on this seemingly simple but effective process and its proper use and application.

Linda has a home in Washington, DC so that she can represent the Flight Standards employees on the hill and Congress and also owns a home in Los Angeles, California. She is tireless in her commitment to aviation safety and proud of her association with the Professional Airways Systems Specialists, which represents over 11,000 aviation professionals globally. ○