



Bringing Specs into the 21st Century

Shot Peening specs written in the 1940s by OEMs just don't make sense for today's MROs, job shops, product and media manufacturers. As a member of AMEC (Aerospace Metals Engineering Committee of the Aerospace Materials Division of the Society of Automotive Engineers), I have the opportunity to contribute to the evolution of shot peening specifications. AMEC is composed of technical specialists in aerospace metallic materials and related processes. AMEC was founded in January 1972 under the name of Aerospace Heat Treat Committee to consider specifications and common problems related to heat treatment. In July of 1974, the scope was expanded to include all aerospace metallic materials and related problems, and the name was changed to AMEC. In October 1977, AMEC became a committee of the Aerospace Materials Division of the Society of Automotive Engineers. AMEC's aim is to provide the aerospace industry and government agencies, in the public interest, with the technical benefits which accrue from cooperative activities and through the synergistic interchange of ideas and experience of members.

Photographed are participants of the first AMEC shot peening sub-committee meeting in Pacific Grove, California.



Al Patterson, a good friend and the AMEC Chairman, upon my request sanctioned a new shot peening sub-committee. As Chairman of this sub-committee and with my Co-Chairman, Hali Diep with Boeing, we called a meeting in January and invited industry leaders. Boeing, Cam-Met, Electronics Inc., Ervin Industries, General Electric, Honeywell Aerospace, Lawrence Ripak, Metal Improvement Company, Mitsubishi Heavy Industry, MTU, Nex Tech Processing, Peening Technologies, Pratt & Whitney, Premier Shot, Potters, PRI, Raytheon, Saint-Gobain Zirpo, Superior Shot Peening, Shockform, Tri Process, and U.S. Army sent representatives; 27 people attended in all.

During the two-day meeting, we worked as a group to discuss the following shot peening specification issues:

AMS-S-13165 discussion about impact of its cancellation in various industries. This document, created by the U.S. Army in August 1944, is cancelled. Issues such as MIL-Spec media as opposed to AMS-2431 media, intensity verification procedures, etc., were out-of-date and AMS-2430 seemed to be an attractive alternative. There will be some issues with proprietary drawings and shop practices that will need to be addressed. Some companies may wish to continue use of AMS-S-13165, others may be willing to transfer over to AMS-2430.

AMS-2430 discussion about changes that would be desirable to former users of AMS-13165. Issues related to transition from users of AMS-S-13165 were discussed and suggested changes from Peening Technologies, Shockform and Aeronamic BV were reviewed.