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# EDITORIAL

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This special issue of the *Journal of Materials Engineering and Performance* (JMEP) is dedicated in part to topics that were presented orally at the AeroMat Conference, International Symposium on Superplasticity and Superplastic Forming (SPF) in Seattle, Washington, June 6–9, 2005. This is a continuation of scientific and manufacturing research related to SPF that began in 1996 and has continued with yearly meetings since then, which are now organized by ASM.



It has been my personal privilege to observe the birth of SPF manufacturing at the Boeing Company in the Puget Sound region and to witness its widespread growth for both commercial and military applications, particularly during the past 15 years. The Boeing SPF factory in Auburn, Washington has its roots as a small 300 square foot hot forming laboratory in 1988. The Advanced Metals Structures factory, as it is now called, is being expanded during 2007 to encompass an area of nearly 400,000 square feet and it includes advanced titanium manufacturing technologies for the fabrication of titanium parts such as Friction Stir Welding, laser welding, and several innovative hot press technologies. The success at Boeing would not have been possible without the assistance of key SPF research accomplishments made by academia and worldwide laboratories.

What has happened at Boeing is not unique. Many other companies are developing their own SPF capabilities or going through a period of considerable expansion. Most notable in this regard is the work being carried out at General Motors, Ford, and Superform, which are collectively leading the leap forward to build lighter weight and less expensive aluminum automobile components.

I want to thank the authors for making an extraordinary effort of reformatting, revising, and expanding their papers for this special journal venue. I also owe a tremendous debt of gratitude to my assistant editors, Dr. Franna Pitt, Dr. Mamidala Ramulu, and Dr. Marwan Khraisheh, for their outstanding individual editing contributions and coordination efforts.

Finally, I am also thankful to have been given this opportunity by Jeff Hawk, the editor of ASM's JMEP and his staff, to share our most recent SPF works. Because of the success achieved here, we are already planning to create a third special SPF edition of JMEP following the next AeroMat conference, International Symposium on Superplasticity and Superplastic Forming, which has been scheduled for May 2007 in Baltimore, MD.

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