

ASTM INTERNATIONAL CONFERENCE ON ADVANCED MANUFACTURING

Research to Application through Standardization

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Industrial Sector - Defense

Additive manufacturing (AM) enables the modernization of current defense systems. The ability to fabricate highly optimized and complex parts helps to further enhance the capabilities of these systems. Additionally, by providing an alternative route to manufacturing hard-to-source spare parts and parts at the point of need (e.g., on-site battle damage repair or on-site manufacturing of temporary spare parts, etc.), AM also helps to improve logistical readiness. As a result, the defense industry has taken the lead in advancing and maturing AM technology. However, existing standards and practices (e.g., commercial standards, military standards, airworthiness processes, and certification practices, etc.) may either be difficult to apply or are just not relevant to AM parts. Thus, new standards and practices need to be developed to facilitate broader and more rapid adoption.

Topics of interest include but are not limited to:

- Qualification strategies for AM Space Flight hardware
- Material and process considerations for specific applications
- Applicability of existing military standards for AM applications
- AM for spare or hard to source parts
- Role of AM in the context of contested logistics
- Rapid battle damage repair or temporary manufacturing of spare parts on-site
- Future of AM defense industry in the digital age



Symposium Organizers

- Adam Hicks, Air Force Research Laboratory (AFRL), USA
- Travis Mayberry, Raytheon, USA
- Prabhjot Singh, RTX, USA
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Research to Standards

ADDITIVE MANUFACTURING