

TRACK 3: PROPULSION**“AN OVERVIEW OF ADDITIVE TECHNOLOGIES AT GE”**

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ABSTRACT

GE Aviation is a world leader in additive manufacturing. GE has certified 2 engine components for flight, with many more to be certified by 2020 including the Advanced Turboprop Engine with significant additive engine structures. Examples of additive design advantages will be provided. The qualification of components manufactured by additive means are also discussed. Qualification includes materials, manufacturing processes, components, and systems.

BIOGRAPHY OF SPEAKER

Mr Karl Sheldon is the General Manager at Large Military Engines. He is responsible for leading commercial strategies and activities for the military combat engine segment, including the F110, as well as its derivatives and commercial applications. Mr Karl began his career with GE at the Global Research Centre where he worked in turbo machinery design for energy and aviation application. He then moved to GE Aviation to work on the F110 engine and develop inlet/exhaust technologies for the military aviation business. Mr Karl has also led CFM56 Systems Engineering, managing engineering and development for the world’s largest fleet of commercial engines. In addition to having chaired sessions at the American Society of Mechanical Engineers’ (ASME) Industrial Gas Turbine Conference, Mr Karl is a Six-Sigma Master Black Belt and an instrument rated private pilot.