



AMEP G40 ISG MEETS 160kW GOAL AT 105°C



- **160kW-rated G40-3B Integrated Starter-Generator (ISG) Integrated into 1000 Hp Combat Drive.**
- **Results/Payoffs:**
 - Provides 160kW using 105 degrees Centigrade coolant (20°C greater than commercial) for combat platform powertrains. **Order of Magnitude** increase in power over the current 16kW military ground vehicle power generating capability
 - ISG with inverter provides stable 600 VDC power bus supporting electrification of auxiliary systems
 - Eliminates engine starter motor - successfully starts the 1000 Hp APD power pack
 - Supports anti-idle operation – 25% mission fuel savings
- **Next Steps:**
 - Complete the testing of the G40-3B with various ISG Controllers: GE-ISGC (circled), Magnet Motor PE31, and the in-house developed GVPM Zeus-200 Inverter.
 - Develop speed/torque/efficiency maps (motoring and generating) – supports M&S and operational strategies
 - Potential increase ISG rating to 180 kW (based on preliminary data)
- **Project Leads: Dean McGrew and Steve Kolhoff**

