Event: On 28 October, 2014, the Joint Technology Exchange Group (JTEG), in coordination with the National Center for Manufacturing Sciences (NCMS), hosted a two hour virtual forum on “DoD Automatic Test Equipment / Automatic Test Systems (ATE/ATS)”.

Purpose: The purpose of the forum was to share the experiences, challenges, successes, and benefits of DoD efforts in ATE/ATS capabilities. The forum examined the DoD and the military Services’ ATS strategies and discussed the variety of approaches and technologies they are pursuing.

Discussion: DOD ATS Support provided an introduction and background of DoD ATS and the major issues facing DoD to include the hundreds of different types of equipment in DoD inventory along with the thousands of application test programs. The DoD ATS Executive Directorate (ED) was established to better coordinate ATS across DoD. The ED goals are to reduce ownership costs, improve joint interoperability, reduce the logistics footprint, and improve test quality. The US Army provided a brief view into the PD TMDE portfolio to include the Next Generation Automatic Test Set (NGATS), Maintenance Support Device (MSD), and calibration sets (CALSETS). We heard Naval aviation’s general ATS strategy including defining a standard family of ATE (CASS Family of Testers), re-hosting TPSs from legacy ATE onto the CASS family of testers, and replacing mainframe CASS with eCASS. The Marine Corps ATS goals include developing commonality across each ATS platform and modular designs configurable to support specific user requirements. GPATS is an open ATE that leverages legacy assets and expands capabilities. The Air Force discussed the Versatile Depot Automatic Test Station (VDATS) which is the standard depot-level tester for avionics workload. VDATS is fielded at the Air Force depots. The DoD Next Generation Automatic Test Systems (NxTest) Integrated Product team (IPT) presented their current initiatives to include a greater use of net centric functions – NxOMS, electro optics (EO) test systems modernization, RF test systems modernization, and IEEE SCC-20 test system and diagnostics standards implementation. Lastly, the DoD ATS Framework IPT described their current efforts to include defining the generic ATS open system architecture based on commercial interface specifications, updating key element definitions, monitoring and supporting standards organizations, and developing demonstration environments.