

31 August 2023

NDIA Automatic Test Committee (ATC) Meeting

AUTOTESTCON, Gaylord National Harbor, MD

The posted meeting slides show the agenda, organizational changes, liaison reports, an update on the ATC Digital Engineering/Digital Transformation (DE/DT) project, and an update from the IEEE SCC20 chair on activity. Thirty participants joined the meeting. The slides that were presented for the Wednesday DE/DT Panel are also posted on the NDIA page at this same location. For the past several meetings beyond COVID19 it has been noted that some DoD updates haven't changed appreciably. Most of us have privately wondered if we are still bringing an industry benefit to the government and whether industry technology trends meet upcoming government projects since the conversation has slowed between the two groups. Chris Giggey brought this topic up for discussion for the DoD and industry members to share their thoughts on how best this committee can be helpful to the government participants and how industry can best prepare their companies to invest in technologies that meet future government needs.

Howard Savage has been a member of this committee since its inception and shared some information with the group during the meeting. Historically, this NSIA (later NDIA in 1997) ATC organization was created in 1974 to help the US Navy (USN), who was struggling with the costs and complexity of ATE and limited space on its ships for these emerging proliferating complex test systems. It was also a very tough time for readiness. Howard mentioned that prior to the start of this committee there were several ATE failures and many complex adapters associated with the USN test equipment. One person who elevated the needs and concerns for ATE and readiness was Frank McGinnis from Sperry on Long Island, NY. He and a group of concerned industry members began a project to examine the USN needs. The industry project, presented to the government by Paul Giordano and supported by Howard and others, was very successful. At the out brief to the Joint Logistics Chief of Staff, which included several three-star generals and admirals, the other services wanted to get involved. Initially a tri-service group was formed that included members from the US Army, US Navy, and USAF with the purpose of asking the industry group to help with other problems the tri-service group brought them and for the government group to share upcoming government ATE technology needs. The USMC was added to the group a little later. In 1985, a new policy, "design for testability", had just been introduced to the DoD UUT design community and its implementation, benefits, and requirements were not yet well understood in the ATE community. During this time in ATE history, workshops were run, and findings were presented to the Joint Logistics Chief of Staff. Some outcome examples from the industry group were that the government should treat ATE like a weapon system, invest in logistics and training of ATE, and there was a need for instrument driver standards such as VXI PnP. These briefings from the "industry committee" to the government group expanded by continuing to take on specific projects the government needed and by receiving from DoD upcoming government requirements.

This approach evolved into the formation of the committee into two main parts - projects and liaison groups, which we have today. Originally and for many years this was an extremely successful pathway that enabled industry to better understand government requirements, so companies knew where to invest, and for DoD to ask for help on various topics related to ATS. This committee also took part in offering synthetic instrument possibilities, standard interfaces for VXI, AI uses, TPS guideline

recommendations, and the newest project will be shared soon on Digital Engineering/Digital Transformation of ATE where this committee will illustrate the gaps that will need to be resolved before ATS DE/DT can be implemented successfully. These studies provided DoD with very useful information for DoD to become more knowledgeable and to help make best decisions for the DoD and the Services. Over the years, DoD got smarter about ATE, logistics, and technology and moved to standard or common core ATE/ATS. Does DoD still need this group?

Today, we are a body of DoD government and Defense Industrial Base (DIB) industry members. When we meet – the networking between DIB industry people and with government members leads often to solving an issue that has yet to become a major one, working together to bid on government projects, or submitting unsolicited solutions. This would not be achieved as easily with a one-on-one type meeting like the proprietary Quartz Watch event or single company meetings.

What can we do as a committee that helps our members? What can we offer the AMB? What is industry investing in and contemplating for future technology that the DoD government members should know about? Can it be discussed broadly in a nonproprietary way by examining commercial products? Are government participants interested in receiving industry trends? Is there a particular technology the government needs that would drive industry investment in a different direction?

After a thoughtful discussion from all participants a decision was made to create a small group of members to meet with the AMB members to help answer these questions. The group includes the ATC Chair and the ATC Liaison members. Howard Savage has offered to review materials created. Bill Ross has agreed to guide the group in the crafting of a message to the AMB and help with setting up a meeting.