

Oak Ridge Centers for Manufacturing Technology — Insights from Jack Cook

The long-term partner with Dave Beck from Y-12, as well as Co-Director of the Oak Ridge Centers for Manufacturing Technology (ORMCT), was Jack Cook of Oak Ridge National Laboratory's (ORNL's) Engineering Technology Division. Jack had accepted the position when Dave Bartine, whom Dave Beck had asked at the very beginning to co-direct ORCMT, left to become chief scientist for NASA's Kennedy Space Flight Center in Florida.

Jack recalled that John Jones had been director of ORNL's Engineering Technology and had supported Jack in the decision to assume the Co-Director's position. In those early discussions, a frequently used graphic showed a "Bridge for Future Missions" that reached from ORNL, Y-12 and universities using science, research and technology to laboratories and industry with demonstrations, applications and deployment. The graphic was labeled "Centers for Manufacturing Technology."

This may well have been the origin of the name for the Centers or at least the resulting graphic from discussions that settled on the ORCMT name. Behind the name was the concept, as defined in a CD produced by the Centers, that the Centers were "established by the U.S. Department of Energy to help maintain national security capabilities while bolstering U.S. economic competitiveness in numerous manufacturing sectors. ORCMT is a national resource for manufacturing technology; it serves as a catalyst for applied research, development, design, prototyping, production, and training."

The bridge graphic played an important role in the interface between ORNL and Y-12. It came to serve as a symbol heavy in meaning.

Jack used this visual aid to convey that "the big event of our division has been the development of a strong collaboration with the Y-12 Plant in ORCMT." He used it numerous times to help build that relationship bridge that reached beyond the Department of Energy or Y-12 or ORNL, but that was a key to Oak Ridge being able to actually provide the technical expertise to "solve tough manufacturing problems."

Additionally, Jack had a photograph made of John Jones shaking hands with Dave Beck and said, "This picture and the 'Bridge' was a relationship and a symbol of what was about to happen in Oak Ridge." And Jack was right. ORCMT succeeded beyond even the most optimistic thinking, primarily because of the teamwork that developed.

Jack continued: "By this time we realized that the Centers needed to add many more of ORNL's applied technologies to the program to showcase the real breath of the Oak Ridge Complex. The 'Bridge' was one of the strong selling features internally. ORNL was also under some budget restraints and was seeking ways to gain access to new programs.

"What had been the case in times past, one location seemed to be up in employment while another was down, was not the case here. Both Y-12 and ORNL were losing positions for different reasons, but at the same time.

"John Jones helped the Centers gain the attention of the Laboratory's leaders, and the presentations we made featured the idea that it was a two-way bridge with both of us winning. We also shared the vision of 'becoming a National Resource for Manufacturing Technologies that provides added value to basic technologies developed internally and externally, thereby creating real wealth and sustaining high-value jobs for our Nation.'

"As we made presentation after presentation internally to the division and group leaders and individual researchers and technologists, we found that there was excitement at the opportunities of working with industry, other government organizations and with universities. The 'Bridge' truly provided multiple access ramps and clear pathways for 'Centers' to form.

“The Oak Ridge Centers for Manufacturing Technology was envisioned early on as ‘organized collections of resources focused on common objectives.’ ORCMT was a Center of Centers.

“The formations could be around a technology, a market segment, and a type of product or collection of resources. We set criteria for the Centers that ensured that ORCMT stayed true to our vision, mission and strategic goals. There were extensions to the criteria that showed the desires of ORCMT to help others both inside the Complex with nuclear missions and outside the Complex with national problems.

“We did benefit assessments that matched our skills and capabilities with the key process needs of the Defense Programs. Similar assessments were made against the desires and needs of industry and the energy program missions of ORNL. At times, as ORCMT grew, it was difficult to contain the Centers. The level of excitement was beyond our dreams and our budget.

“With this approach and structure we went forward in search of partners with funding and needs. We were in search of National issues, industrial, governmental, large businesses, universities or small one-person businesses. The results were amazing.”

Jack Cook has been THE primary reason others have come forward to tell us about ORCMT. Jack has made numerous contacts and has provided me very helpful materials and information. Thank you, Jack, for helping to tell the story of the successful effort that is known as the Oak Ridge Centers for Manufacturing Technology.