

Rapid Commercialization of MRAP Vehicles – A Case Study

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Mississippi State University's CAVS Extension has recently completed a series of successful armored vehicle projects at Navistar Defense's plant in West Point, MS. These projects involved the application of technologies and engineering methodologies that resulted in an unprecedented rapid commercialization of the MRAP (Mine Resistant Ambush Protected) vehicles into a war zone. The MRAP vehicle according to the Department of Defense has played a significant role in successfully protecting the war fighter in Iraq. The CAVS Extension team supported the commercialization efforts through leading the transformation of a 50 year old abandoned manufacturing facility into a world class military vehicle assembly plant. This engineering challenge involved planning the production flow, development simulation models, designing the plant layout, and implementing the production systems. As a result, the plant achieved full scale production rate (500 vehicles per month) within 9 months of initial vehicle prototype. The West Point plant was the lead producer of the nation's MRAP vehicles, accounting for almost 60% of all vehicles produced during a period in which the MRAP was the highest DOD acquisition priority.

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Glenn Dennis is Manager of Manufacturing and Quality Processes at the Center for Advanced Vehicular Systems and has over 25 years of experience in engineering and quality management roles in a variety of companies including Dow Corning Wright, Dover Elevators, Worcester Valves, and Mueller Industries. His innovative work at Mueller Industries led to 4 U.S. patents. In addition, Glenn successfully owned and operated his own service business for a number of years in which he relied heavily upon his engineering and management training. Glenn has a B.S. in Industrial Engineering from Mississippi State University and a M.S. in industrial and systems engineering from University of Memphis. He is a registered professional engineer in the state of Mississippi and a certified Six Sigma Black Belt. Glenn can be reached at (601) 407-2739 and by email at gdennis@cavse.msstate.edu.

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