



## WSTIAC Success Story

### System Operational Effectiveness Decision Support Tool for MCSC

[<http://wstiac.alionscience.com>]

Customer:	Marine Corps Systems Command (MCSC)
Challenge:	MCSC had a need for a Total Life Cycle Systems Management (TLCSM) capability that could monitor System Operational Effectiveness (SOE) throughout the life cycle of Marine Corps weapon systems and equipment.
Approach:	WSTIAC developed and deployed a multi-user web-based automated tool, the SOE Decision Support Tool (DST), which enables consistent and accurate analysis of leading indicators that ultimately affect SOE and weapon system readiness. The SOE DST supports sustainment decisions related to Overhaul, Service Life Extension, Sparing, Reliability Centered Maintenance, Condition Based Maintenance, Performance Based Logistics, and Predictive Modeling initiatives as well as acquisition decisions related to Requirements Development and Application of Lessons Learned (from predecessor weapon system performance).
Value:	The SOE DST is used by nearly one hundred Marine Corps users and monitors TLCSM metrics for over 300 Marine Corps Weapon Systems within the ground equipment fleet. It allows the Marine Corps to “design for support” of new systems, while simultaneously “supporting the design” of existing systems; helping manage SOE by summarizing metrics that support tradeoffs between system performance, availability, process efficiency, human factors, and cost that are needed to maximize the operational effectiveness of a weapon system. The tool routinely supports decisions like tracking potential parts obsolescence problems or diminishing manufacturing sources; predicting the number of spare parts required for a weapon system in the next 3-24 months based on historical usage; and identifying critical parts that affect readiness and/or availability of weapon systems.