McCORMICK STEVENSON
ENGINEERING+DESIGN

ONGOING INNOVATION

SWaP - Size, Weight and Power

The Department of Defense (DoD) continues to shrink its products while maximizing performance. This relentless drive for miniaturization, weight reduction and enhanced utility, in combination with an ever-increasing demand for power creates electronics packaging challenges with regard to Size, Weight and Power (SWaP).

McCormick Stevenson applies "state of the practice" techniques to overcome SWaP challenges:

TRANSITION FROM FEDERATED TO INTEGRATED SYSTEMS	SHRINK ELECTRONIC INTERCONNECT SIZE NOT CONTACT COUNT	HIGH POWER DENSITY

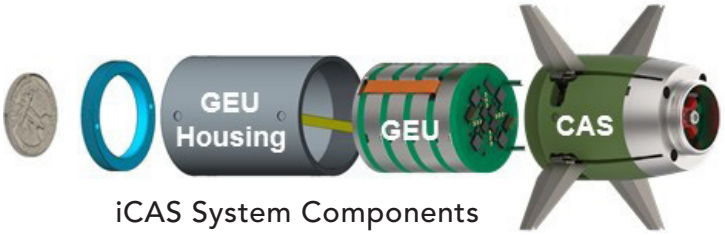
Mission Accomplished - iCAS

An example of SWaP success is the DARPA-funded iCAS (integrated Control Actuator System). The iCAS is a gun-launched integrated Guidance, Navigation & Control system (GNC). The DARPA challenge demanded a miniature GNC system for use in a medium caliber guided projectile application. The McCormick Stevenson team rose to the challenge, developing a spec-compliant design that:

- Created a highly integrated system that reduced GNC volume
- Enhanced performance by integrating the many GNC functions in a medium caliber form factor
- Promoted application-specific adaptability with a software-definable GNC in an open architecture framework
- Achieved gun launch survival with innovative, high strength-to-weight packaging
- Simplified production transition through consistent focus on design for manufacture, assembly and test

This successful SWaP-focused design slashed system size and weight while adding a modern dual core digital signal processor and a two-channel, software-definable RF transceiver.

DIAMETER REDUCED: 4 TO 1
WEIGHT DECREASED: 20 TO 1



iCAS System Components

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WE STAND READY TO HELP. LEARN MORE: WWW.MCCST.COM
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