

AEDC Range Systems Support Laboratory

Saving test customers time and money

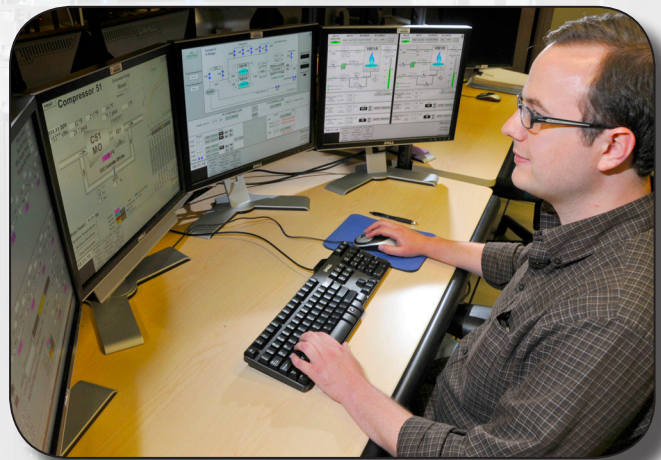


Utilizing state-of-the-art control system simulations, the Range Systems Support Laboratory (RSSL) is saving AEDC and its customers time and money.

The RSSL is an operational facility consisting of hardware, software and information technology resources that provide AEDC with the ability to simulate testing environments in order to develop, test and implement software and controls logic.

Initially a lab was established in 1998 to support the Test Operations Modernization and Integration Program (TOMIP) in the Engine Test Facility (ETF). In 2006, the RSSL was created to support all AEDC sustainment upgrades across the aeropropulsion, flight and space and missiles test facilities.

Using the lab for control systems checkout has reduced facility downtime from weeks to only a few days. Operators are now able to complete much of the checkout through computer simulations and scenarios. The entire checkout requires



90 percent less air-on time and facility downtime, fewer test operators and is conducted without risk to personnel or the plant, greatly reducing the safety risk and expense associated with running the plant during a checkout.

An added benefit from the lab includes a location where engineers and designers develop and checkout software in a simulated environment without the risk of injuring personnel, damaging equipment or interfering with test operations. In this area they can implement changes and provide input on their system before it is built, rather than making costly changes afterwards.

The lab also serves as an operator training sta-

tion that allows operators to run the controls from the lab and adjust to various scenarios prior to using it during a test.

AEDC's RSSL has proven to be extremely cost-effective in quickly fielding new technologies and avoiding lengthy down-times in the Complex's test facilities. In the weapon systems acquisition cycle, time truly equates to money and in some cases lives.

The more efficient AEDC becomes in fielding an improvement to its systems, the quicker a test customer can acquire data and field a weapon system. These efficiencies translate directly into cycle-time reductions and cost savings to the taxpayer.