SDL provides cost-effective Re-Engineering, System Engineering, and Test (RE-SET) services for Air Force flight and ground-based hardware systems. Geographically located close to Hill Air Force Base, SDL possesses over 50 years of experience in complex system development and test.

The Air Force is migrating toward organic maintenance capability to reduce costs. Unfortunately, effective testing is often hindered by missing documentation and inadequate board test systems. Additionally, as platform life cycles extend by decades, obsolete assemblies must be replaced with little knowledge of their original design. SDL’s RE-SET services overcome these challenges by aiding the Air Force with cost effective development of depot-level maintenance capabilities and seamless technology insertion solutions.

SDL accelerates Air Force development of organic maintenance capability through cost-effective, on-time execution of RE-SET services. When needed, the group draws on the larger SDL organization for additional manpower and expertise. As a non-profit University Affiliated Research Center, all work is government owned, including production-ready technical data packages. SDL is small enough to maintain intimate contract execution and our ISO 9001 certification is indicative of our commitment to high quality engineering practices.
EXAMPLE PROJECTS

DEPOT SUPPORT—F-16 FLIGHT DISPLAY UNIT RE-ENGINEERING
SDL re-engineered the F-16 Display Unit subassemblies, including the CCMFD, CPDG, and enhanced CPDG, providing the Air Force with the technical data package and associated shop manuals to support depot level activities of the F-16 flight display.

In addition to re-engineering the electrical and mechanical subsystems, SDL created Test Program Sets (TPS)s to support depot troubleshooting and repair. SDL built Interface Test Adapters (ITA)s and integrated them into the Air Force’s testing platform. The TPS package included the ITA hardware and software, an acceptance test strategy, the ITA technical data package, and associated Technical Orders (T.O.)s to support the TPS. SDL was awarded the F-16 project based on cost-effective delivery of high-quality engineering services.

GROUND SYSTEMS—P4R1 REPLACEMENT
To assist the Air Force in establishing organic repair capability and to support future procurements of the P4R1 flight subsystem, SDL re-engineered its ADIU and IFSSR assemblies and delivered form, fit, and function direct replacements of the existing assemblies. SDL redesigned the electronics but maintained the housing and functional operation for seamless insertion into the existing pod.

GROUND SYSTEM TECHNOLOGY INSERTION
Providing a vital function in supporting flight control systems, SDL re-engineered a solid-state data cartridge reader, creating a replacement unit with enhanced capabilities. SDL developed hardware that supports several existing cartridges for various flight platforms. The cartridge reader was designed with modest procurement costs in mind to ensure that the Air Force could reach their objective of replacing, rather than repairing, obsolete and failing units.

MISCELLANEOUS HARDWARE
SDL’s knowledgeable staff can perform a wide array of system testing and repair using our extensive electronics, machining, and logistics facilities. SDL will work with the customer to determine if a subassembly needs to be replaced or repaired, then will recommend the most cost-effective solution.