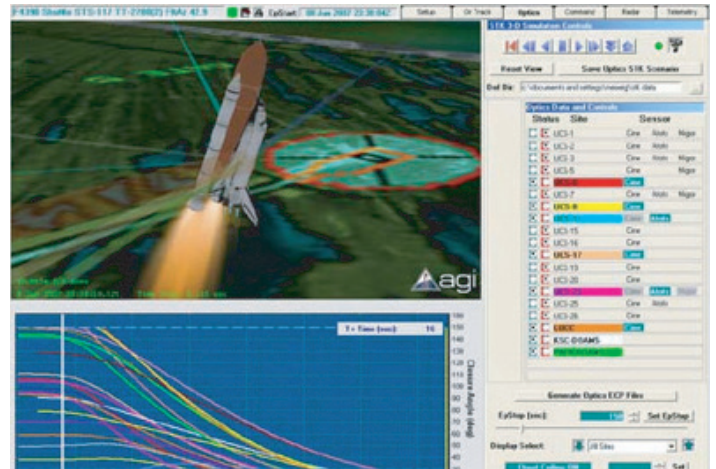# AGI Helps Computer Sciences Raytheon (CSR) Win the Eastern Range Technical Services Proposal with STK

STK Solutions Provide Key Element to Development

THE FLIGHT PLAN: Computer Sciences Raytheon (CSR)—a joint venture partnership of Computer Sciences Corporation (CSC) and Raytheon Technical Services Company—has been the technical services contractor for the Eastern Range (ER) at Cape Canaveral Air Force Station in Florida since 1988. CSR is responsible for all down-range tracking assets for the ER—including a multitude of radar, telemetry, command destruct, and optical sensors. When CSR's ER Technical Services (ERTS) contract with the U.S. Air Force came up for re-compete, the company proposed a solution to eliminate dependency on the 35-year-old hardware and software system that provided instrumentation coverage planning for range safety.

THE MISSION BRIEF: Range safety—protecting people, property and the environment—is the priority for every ER mission, and requires the generation of an Instrumentation Coverage Plan (ICP) for each launch. Producing a set of ICPs is an analytical process based on the evaluation of vehicle performance data, ground instrumentation characteristics and performance data, and theoretical trajectory data. The ICP is the commitment of ER instrumentation necessary to meet both range safety and range customer mission requirements. To accomplish these goals, CSR chose to embed AGI software capabilities using STK Engine. This allowed them to migrate to a PC platform and consolidate their 10 applications into one easy-to-use desktop application.

> "With the use of AutoSTK, it now takes less than two hours to create an initial set of Instrumentation Coverage Plans—a savings of approximately 40 hours over the legacy processing applications."

When challenged to reduce the time required to generate instrumentation coverage plans and eliminate dependency on outdated legacy software or hardware, Computer Sciences Raytheon (CSR) used the STK Engine. With it, they created a cohesive and flexible PC-based application using STK's animation and analytical capabilities to generate effective coverage plans

GO FOR LAUNCH: Using the STK Engine made development easier for CSR, adding analysis and display capabilities they otherwise would have gone without. AutoSTK has provided CSR—and the Eastern Range—with a high-quality, easy-to-use, reliable tool to generate ICP products. With this new tool, it now takes less than two hours to create an initial set of ICPs for a mission. This saves approximately 40 hours over legacy applications. CSR can also incorporate trajectory and instrumentation revisions in minutes. In addition, the simplicity of the application reduces required skill and speeds training.

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