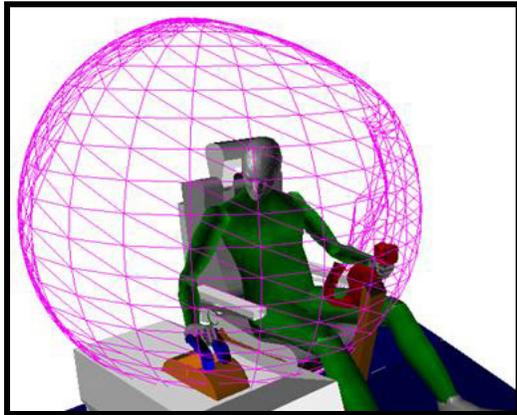


RECENT PROGRAMS

H-53 Flight Engineer's Crashworthy Crew Seat



Crashworthy Seat Motion Simulation



Crashworthy seats provide essential protection to crewmembers during high g-loading associated with hard landings, crashes or unusual maneuvers.

The problem was to design a crashworthy seat for the H-53 Flight Engineer that would provide protection when needed and enable full movement by the Flight Engineer to see and reach all of the cockpit areas necessary to fulfill his duties.

SSAI met the challenge under the Flexible Acquisition Strategy Tool (FAST) contract at WR-ALC/LU, and developed a Crashworthy Flight Engineer's Crew Seat that:

- Has a vertical rating >19gs; a forward rating >20gs and a lateral rating > 5 gs to exceed Government requirements
- Provides full range of motion from the 5th to the 95th percentile to provide the needed access and adjustability parameters for Flight Engineer mission functionality; and
- Incorporates a restraint system that ensures the seat passenger the full benefit of the seat's crashworthy features without inhibiting the needed range of Flight Engineer motion and movement
- Improved delivery schedules 64% over government needs

SSAI was able to provide this solution to the Air Force through our experience in developing the correct team to respond; planning engineering support programs; and designing, testing, delivering and installing helicopter and fixed wing hardware and software modifications.

In developing the best-value team, SSAI reviewed the capabilities of alternative crashworthy seats produced in Europe and the US before selecting one offered by a North American firm. This seat not only exceeded crashworthy performance requirements at a reasonable cost but also presented least risk to performance, cost and schedule.

SSAI also selected a well-qualified engineering organization to provide independent assessment of efforts in the key task areas of structural integrity, seat passenger ergonomics, crash protection and installation design. This use of a third party, well experienced in helicopters and helicopter design requirements, ensured product quality through impartial and objective assessment of work in design-critical areas.

SSAI integrates team efforts through a comprehensive development program based on documented ISO 9001:2000 processes and procedures that cover Program Planning and Management, Subcontractor Management, Aircraft Modification Engineering, Risk Management, Integrated Logistics Support, Integrated Master Plans and Schedules, and Quality Assurance.

SSAI provides an Integrated Data Environment as an infrastructure for program monitoring and data exchange to ensure real-time communications between the customer, SSAI and all team members for efficient and effective command and control.