



CH-53D



OPERATIONAL FLIGHT TRAINER UPGRADE

The CH-53D is the newest tactical platform that DEI Services Corporation has earned the privilege to support through an upgrade to the CH-53D Operational Flight Trainer, Device 2F121, located at the Marine Corps Base (MCB) Kaneohe Bay, Hawaii. The upgraded device includes a state-of-the-art digital electric control loading system and a PANORAMA collimated display. This modification provides the 1st Marine Aircraft Wing (1st MAW) Aviation Support Element, Kaneohe (ASEK) with an advanced trainer equipped to offer advanced training to “Sea Stallion” pilots and copilots.

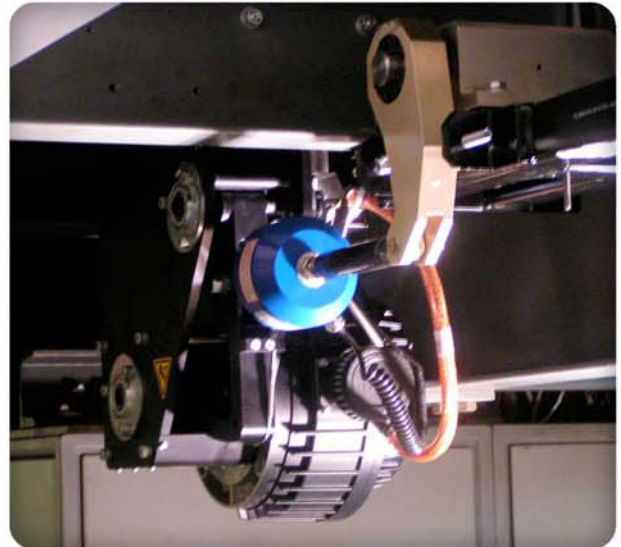
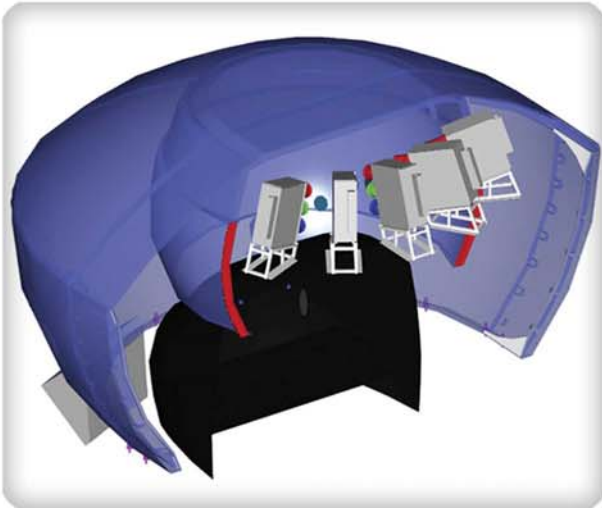
Replacement of the existing hydraulic control loading system included data collection of the control forces on the design basis aircraft to support our analysis and generation of the control loading model to replicate flight control forces, force feeds, and mechanical characteristics. This effort also included the redesign and refurbishment of flight control linkages, and the generation and delivery of an updated technical data package (TDP).



Additionally, the prior monitor-based display system has been replaced with a 220 degree x 45 degree collimated display system, thus permitting cross-cockpit viewing. This display system provides real-world, dynamic simulation for both the pilot and copilot, and enables Device 2F121 to accurately emulate CH-53D operation in all-weather and all-mission conditions as established by the Baseline Configuration Audit (BCA).

Display System Upgrade Summary

- 220 x 45 PANORAMA Collimated Display
- Cross-Cockpit Viewing
- DPM Chin Window Functionality
- Support Structure Analysis / Implementation
- OFT Payload Analysis
- Display Projectors / Alignment System
- Light Tight Enclosure



Control Loading Improvement Summary

- Aircraft Control Forces Data Collection
- Control Loading Model Generation
- Digital Electric Control Loader
- Control Linkage Redesign and Refurbishment
- Actuator Linkage Design and Installation
- Software Development and Integration: IOS / Host
- Installation / Validation

For more information on how our expertise in upgrading operational flight trainers can enhance your readiness, please contact us.



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