



## T-44C OFT AVU

### Operational Flight Trainer Avionics Upgrade

**Kratos is proud to support the Naval Air Training Command by leading the effort to upgrade Device 2F129, T-44C Operational Flight Trainer.**

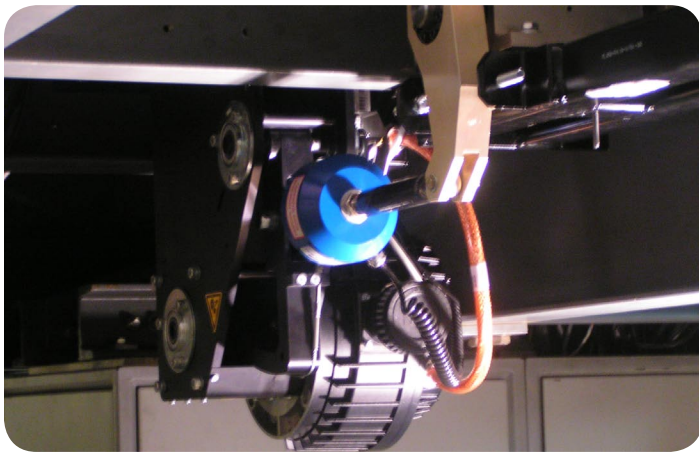
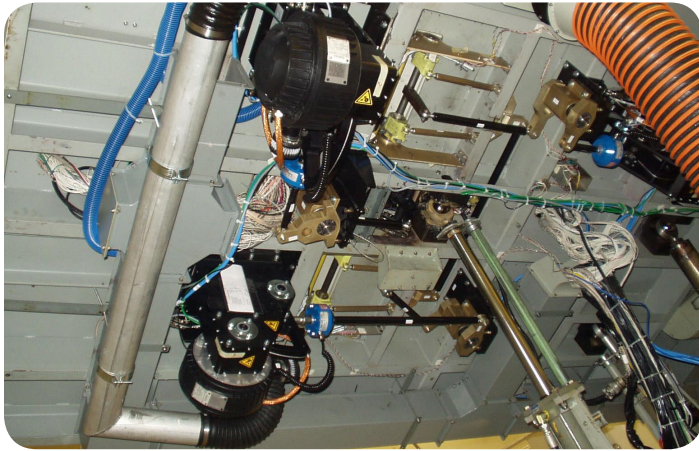
An upgrade to the control loading system for all five trainers was completed in 2003. Kratos was awarded a contract for a complete avionics upgrade, which is being implemented concurrently with the developing aircraft configuration. Upon completion of the T-44C OFT Upgrade, these operational flight trainers, located at NAS Corpus Christi, TX, will be utilized by the Chief of Naval Air Training, to train Navy, Marine, Air Force, Coast Guard, and foreign pilots in the operation, procedures and flight of the T-44 Pegasus twin-engine propeller aircraft.



The upgrade of the control loading system included replacement of the existing hydraulic control loading system with a state-of-the-art digital electric control loading system, new control loading linkages, redesigned flight control linkages, and replacement of the existing hydraulic toe brake system.

### Control Loading Upgrade Summary:

- Control Linkage Re-Design and Refurbishment
- Actuator Linkage Design and Installation
- FCS H6000 Model Follower
- CLS Software Integration : IOS / Host
- Installation / Validation / Verification



T-44C aircraft are being upgraded to incorporate digital displays, based on the Collins Pro Line 21 Avionics System. Kratos was selected to perform the corresponding upgrade to the T-44C OFT's to reflect the new avionics configuration of the aircraft.



The T-44C OFT, Device 2F129, was built more than 25 years ago with the software written in assembly code. Over the years, various contractors have modified the software converting it first to FORTRAN, and then as ECPs were executed adding C and C++ code. For the T-44C OFT AVU, Kratos is taking legacy host code, modifying the code as necessary, and adding new systems functionality in C and C++. Additionally, we are replacing the antiquated VMICTM I/O chassis with a state of the art distributed serial I/O methodology.



### Avionics Upgrade Summary:

- Primary Flight Display (PFD):  
EADI/EHSI/ALT/IAS/VSI/AP Moving Map
- Multi-Function Display (MFD):  
Moving Map/EGPWS/Radar
- Flight Management System (FMS):  
Rockwell Collins CDU-3000
- Integrated Radio Control Head:  
NAV/COM/TACAN/XPONDER
- Auto Pilot:  
Rockwell Collins FGP-3000
- Dual Audio Control Panels
- Back-Up UHF/VHF Radio
- Back-Up Digital Flight Display:  
EADI/EHSI/ALT/IAS/VSI
- Digital Audio Effects and Intercom System
- Full Cockpit Refurbishment
- Upgraded Computer-Based Training System
- Upgraded Pre-Brief/De-Brief System

