

Functional Area 8 - Human Factors Engineering

PSI Contract N00167-02-D-0038 DO 2, 10: As part of the NSWCCD Acoustic Measurement Facilities Improvement Program, PSI developed a new radiated noise data analysis system, the Analyst View Station (AVS). AVS was designed to provide the radiated noise analysts with maximum flexibility in database searching, data processing, and data analysis. However, as larger and larger amounts of data were collected, AVS's flexibility became a drawback. Providing complete flexibility made the system cumbersome to use for routine operations. PSI software engineers experienced in Man Machine Interface (MMI) and Human Factors worked with radiated noise analysts to determine what operations were routine. They then designed software modifications to automate those operations to reduce errors and make analysis more efficient. PSI software engineers then implemented the software modifications and tested them with the radiated noise analysts on real data cases. These changes resulted in the elimination of hundreds of steps and decision points in routine data analysis. This modified version of AVS (dubbed AutoAVS) is now coming into routine use in USNS HAYES radiated noise trials and a plan for making AutoAVS capability available for SEAFAC trials is under development.

PSI Subcontract to MITRE Corporation Contract 43529: In a subcontract to MITRE Corporation PSI provides Human Computer Interface (HCI) development and analysis in support of new displays and technology used by the Federal Aviation Administration (FAA) for improving efficiency and maximizing the operational capability of the Enroute Air Traffic Control (ATC) Centers. PSI analysts, are thoroughly familiar with the operational use of the present and future displays used by ATC personnel. Using the principles of human factors engineer we insure the interactive computer interfaces are safe and effective.

Additional Contracts:

ASTM Contract DE-AC01-02NE23480, Contact Edmond Tourigny, 301-903-3679