Human Factors and Usability Testing

AIR applies our knowledge of psychology, physiology, and behavior to improve cognitive and physical human performance. We employ human factors methodologies—including hierarchical task analysis, usability studies, and human factors evaluations—to help our clients optimize the design of technologies, equipment, processes, and organizations, with the overarching goal of enhancing human performance and customer experiences.

Here are some highlights of our human factors projects:

- Developing human factors design requirements for technology in air traffic control workstations

- Analyzing how changes to the national airspace may affect the job performance of human operators

- Facilitating focus groups to identify usability barriers faced by people with hearing loss

- Providing input on the design of software applications that are used by multiple diverse stakeholders

- Performing human factors evaluations and usability tests of new software applications

- Generating human factors standards for the design of graphical information displays

- Providing stakeholder support for a voluntary safety reporting program and developing a taxonomy of causal contributors to human error in aviation

- Conducting hierarchical task analysis to determine the duration required for employees to perform a job task

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