

EXECUTIVE SUMMARY

The seventh in a series of two-day workshops on Human Factors in Maintenance and Inspection was held in Atlanta, Georgia in August 1992. The workshop theme was "Science, Technology, and Management". The workshop reviewed the research program of the FAA Office of Aviation Medicine. The majority of the workshop presentations were progress reports from various members of the research team. Industry and Department of Defense personnel also reported on topics related to the workshop theme.

Science

The scientific reports were provided primarily by the University staff members of the research team. These reports covered topics related to human information processing and error classification, human factors of information display, an experimental evaluation of training for visual inspection, a field study of maintenance workplace illumination, and a case study of maintenance work control cards. There was also a presentation on development and evaluation of a real-time decision support system. The National Plan for Aviation Human Factors was also presented. The scientific research has provided sound principles upon which technology has been developed and tested.

Technology

The technology reports described software and hardware systems that have been developed to support aviation maintenance and inspection. These reports covered topics related to the application of advanced technology for job aiding, training, and on-line information systems. The systems described provide support to the U.S. Air Force maintenance technicians, FAA electronics technicians, and airline environmental control maintenance technicians.

Management

Innovations in management have had a positive impact on the effectiveness and efficiency of maintenance. Two airlines reported on programs that increased the participation of aviation maintenance technicians in planning and decision making. The programs and preliminary results are also reported.