



香港科技大學  
THE HONG KONG UNIVERSITY OF  
SCIENCE AND TECHNOLOGY

Department of  
Industrial  
Engineering and  
Logistics  
Management



## Seminar

# Challenges in Aviation Maintenance Human Factors

**William B. Johnson, Ph.D.**

Chief Scientific and Technical Advisor

Human Factors in Aircraft Maintenance Systems

US Federal Aviation Administration, Washington, DC

**Date: Oct 15, 2007 (Monday)**

**Time: 4:00-5:00 pm**

**Venue: LTH, The Hong Kong University of Science and Technology**

## Synopsis

Dr. William B. Johnson has responsibility to define and guide much of the US Federal Aviation Administration's Research and Development related to aircraft maintenance and engineering. He recognizes that the reduction and mitigation of human error in maintenance is one of the few frontiers to impact the extremely safe airline transportation system.

William Johnson will describe sample FAA research and development related to human factors in maintenance organizations to include: A study of maintenance error in non-native English language speakers; an international survey of human factors program in maintenance organizations and; FAA programs to encourage voluntary reporting of maintenance error. He will also discuss his PEAR model that encompasses four key words that capture high payoff opportunities for human factors professionals. The PEAR extends beyond aviation maintenance, applying to other industries and to life in general

Having just completed a large training delivery system for FAA inspectors he will show samples of new video segments that generalize and simplify human factors challenges in aviation.

## Dr. William B. Johnson

Dr. William Johnson is the FAA Chief Scientific and Technical Advisor for Human Factors in Aircraft Maintenance Systems. He joined FAA, as a Senior Executive, in 2004. He is an Aviation Maintenance Technician and a pilot for 40 years. He has served as a Designated Mechanic Examiner for the FAA. He earned his Ph.D. from the University of Illinois.

Bill spent 25+ years as a Senior Executive and Scientist for Engineering Companies specializing in Technical Training and Human Factors, including Lufthansa Technical Training. For 13 years, as a contractor, he managed the FAA Office of Aviation Medicine team for research on Human Factors in Aviation Maintenance and Inspection.

Bill Johnson is a long-standing member of the International Society of Air Safety Investigators and the Human Factors and Ergonomics Society. He is a member of the Royal Aeronautical Society and the Flight Safety Foundation. In 2005 Bill was honored by the Aviation Week Group with the MRO Safety Award "recognizing outstanding commitment to safety through the use of effective and modern techniques, processes, procedures, and actions." In 2006 Bill received the FAA Administrator's Award for "Use of Plain Language" for his work on *The Operator's Manual for Human Factors in Aviation Maintenance*.