Select Human Machine Interface Properties
of Flight Deck Instruments

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Abstract

There is a growing trend in modern avionics to consolidate switches, indicators, and panels into touchscreen Display-Based Controllers (DBCs). The motivation is fueled by a desire to improve data access/management with an intuitive user-interface (UI), de-clutter the flight deck console, reduce weight of the avionics, reduce maintenance cost, and enable rapid software-based upgrades for key avionic systems. This trend represents a significant change in the way pilots interact with the flight deck hardware. This presentation discusses some of the human-machine interface issues associated flight deck instruments, and will pay particular attention to the physical touch properties of the touchscreen display.

The Speaker's Biographies

Tim Robinson is the Research and Technology Manager for Esterline Control Systems' Everett facility, a division of Esterline Technologies Corporation. He manages research activities in optical systems, electro-optical systems, and materials used in flight deck avionics. He has authored or co-authored 25 + papers and 4 patents in topics such as silicon compounds, thin-film coatings, backlight materials, cockpit lighting, analog and digital helmet mounted night vision imaging systems, and touchscreen displays.

Acknowledgments

Seminar

The Seminar is free. Please join the speaker for a no-host dinner after the seminar. Directions to the restaurant will be provided at the seminar. Non-Members are welcome. RSVP to Gary Johnson at Gary.Johnson@tek.com or (503) 627-1985. Please indicate if you plan to participate in the dinner.

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