

HUMAN FACTORS Subcommittee Findings and Recommendations

FALL 2015

Summer 2015 – Finding #1

- Advances in Medical Technology and technology with potential implications for Aerospace Medicine and Human Factors in aviation, including safety
 - Challenges:
 - The breadth and number of areas of advancement
 - The pace at which technology is advancing

Recommendations:

- FAA develop methodology to track advances in technology with potential implications for operations, Aerospace Medicine and Human Factors in aviation
- Assess implications, both positive and from a safety and risk management perspective, to better inform research and plans for potentially rising issues and opportunities

Summer 2015 – Finding #2

- Human factors is an important component of creating an acceptable integration of operating UAS in the NAS
 - Essential to continue prioritization of:
 - Control station design and approval
 - Operator/pilot qualifications and training
 - Procedure and air space design
- Having Human Factors a priority within the UAS program is a positive step in achieving this essential component of UAS in the NAS

Winter 2015 – Finding #4

- Significant improvements in throughput, operational efficiency, & overall system performance while maintaining the highest level of safety are expected from the implementation of NextGen operational concepts
 - Critical to consider human factors issues throughout the concept exploration, design and implementation process (ex. Performance Based Navigation (PBN))

Recommendations:

- Continue HF work focusing on design & implementation of effective flight deck procedures for PBN, and on associated implications for design of automated flight-path management systems
- Complement with studies concerned with HF issues that impact successful design, adoption, implementation and evaluation of PBN in performance of ATC, Traffic Flow Management (TFM) and Flight Operations Control (dispatch) tasks
- Ensure work is completed in cohesive collaborative manner that provides guidelines grounded on an integrated systems perspective

Winter 2015 – Finding #5

- ATC/Tech Ops Core program is no longer pursuing a strategic research planning effort due to a lack of resources
 - Strategic research planning effort identified as high value; would help FAA uncover emerging risks and position itself for doing the appropriate research in a timely manner
 - Without this strategic research component, there is once again risk being built into the ATC system for both current operations as well as for NextGen implementations

Recommendations:

- Reconsider the prioritization of this work and look to allocate necessary resources to re-start this important strategic research planning effort including resources to execute the projects in the strategic plan