

Question: **Aviation Medicine Research.**

- As part of its safety mission, CAMI's Biodynamics Research Team will continue its research to support appropriate regulatory action and refine the performance criteria for child restraint systems on aircraft.
- Results of Age 60 research reports that are being developed in response to Congressional direction and scheduled for completion in September 1999, will serve as the basis for defining further research in this area for FY-2001 and beyond to properly assess age-related issues in pilots.

Question: **Joint human factors activities with NASA, DOD, DOT.**

CAMI scientists are collaborating with NASA-Langley as a part of the Aviation Safety Program, on the analysis of all Part 121, 135 and GA accidents since 1991 using the Human Factors Analysis and Classification (HFACS) tool. HFACS enables the identification of human error trends among aviation accidents and the evaluation of intervention and prevention strategies.

CAMI scientists are collaborating with NASA-Langley as part of the Aviation Weather Information (AWIN) program:

- Provide Human Factors support of the selection of integrated formats for weather presentation on multi-function displays, including simulator tests of display formats and pilot/system interface configurations.
- Develop capability to present significant weather (convective cells) pictorially in both the real-world out-the-window view and on cockpit displays to assess pilot behavior in combining direct and inferred data for weather-related decision making.

CAMI is collaborating with the DoD (U.S. Naval Safety Center and the Joint Service Safety Chiefs) on further development and validation of HFACS. The co-developer of HFACS was formerly with the U.S. Navy but has transitioned to the FAA as the Human Factors Branch Manager at CAMI.

Question: **GA/Vertical Flight area, including FAA participation in NASA AGATE program.**

CAMI scientists continue with their involvement in the NASA/FAA AGATE program. Research is focused around the following activities:

- Evaluate Highway-in-the-Sky (HITS) Primary Flight Display formats and provide design recommendations, consistent with certification requirements, to the HITS contract team.
- Evaluate control interfaces (for flight control and for navigation systems management) and provide design recommendations and certification criteria for both.
- Provide human factors support for integration of functions into multi-function display (MFD) unit.

Question: **Safe Flight 21 Program.**

- CAMI scientists participated, as members of the air traffic control human factors OpEval working group and data analysis team, in the Ohio Valley ADS-B/CDTI OpEval Project. This included: use of ATC tracking data to analyze and evaluate aircrew performance and the evaluation of controller-pilot voice communications.
- A CAMI scientist is participating in the Alaska Capstone Project. He was involved in the downselect of the Capstone Avionics package and is a member of the Safety Analysis team involved in the development of the baseline safety questionnaire. A Capstone Human Factors Team has been established and is currently developing a Human Factors Test and Evaluation Master Plan.