

NCSU/Aptima – NASA NRA-07 Research

6/18/07

Team Members: Alexander, Cowley, Kaber, Kaufmann, Kim, Stelzer

Guests: Randy Bailey

Agenda:

Overview of literature reviews (Cowley)

Review of descriptive statistics analysis (Alexander and Stelzer)

Review of diagnostics on ANOVA model of overall clutter in HUD features (Kaber, Kim)

Review logistic regression analysis (Kaufman, Cowley)

Initial analysis

Responses to comment and questions

Review of factor analysis (Alexander and Stelzer)

Loading of semantic pairs on various factors

Discussion of summary of pilot comments on display images (Kim, Kaber, Stelzer, Cowley)

Additional business from the floor

Issues/Tasks Addressed:

- Completed reviews of literature from NASA and posted to project website.
- Completed analysis of demographic data on pilots.
- Completed logistic regression analysis.
- Completed summary of pilot comments on displays.

Current Issues:

- Develop draft technical report on Experiment #1 (8/15/07) (All) – Tentative writing assignments:

- Introduction (Kaber, Alexander, Stelzer, Cowley)
 - Motivation and Objective (Kaber, Alexander, Stelzer)
 - Methodology:
 - Scenario (Kaber, Kaufmann)
 - Participants and statistics (Alexander, Stelzer)
 - Experiment design (Kaber)
 - Independent variables (Kaber, Kaufmann)
 - Dependent variables and surveys (Kaber, Alexander, Stelzer)
 - Procedures (Kaber, Kim, Kaufmann)
 - Hypotheses (Kaber)
 - Results:
 - ANOVA and regression models of overall clutter (Kim, Kaber)
 - Psychophysical transfer function (Kaber)
 - Factor analysis (Alexander, Stelzer)
 - Preliminary multi-dimensional preference mapping (Kim, Kaber)
 - Logistic regression analysis (Kaufman, Cowley, Kaber)
 - Subjective comments from pilots (Stelzer, Cowley, Kim).
 - Discussion:
 - Hypotheses and inferences (Kaber, Alexander, Stelzer)
 - Conclusions (Kaber, Alexander, Stelzer)
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- Prepare journal manuscript based on first study as part of project (Target submission date – 8/15/07. Consider HF or ASEM.)