

MMDAC Research Project Team Meeting

2/12/08

Team Members: Alexander, Kaber, Kaufmann, Kim, Prinzel, Stelzer, Veil

Agenda:

Review of action items from January meeting (with due dates of 2/14):

Identify HUD configurations to be studied in Year 2 (Kaber, Kim & Prinzel; Done) – Kim to discuss configuration selection.

Draft multi-dimensional subjective measure of clutter (Kaber, Kim, Alexander & Stelzer; 2/14 – Draft complete) – Kim and Alexander to discuss forms.

Identify objective measures of visual display properties and measurement devices (Kaber, Kaufmann & Veil; 2/14) – Veil to give overview of measures.

(Additional project – Measurement of low-level visual properties of images used in 1st study and correlation with groups of “high”, “medium” and “low” clutter displays.)

Develop experimental design (All; 2/14 – Draft complete) – Kim to give overview.

Develop flight scenario (Kaber & Kaufmann; 2/14 – Still in progress) – Kaufmann to report status.

Develop table specifying display images to be delivered during different legs of each experimental trial (Stelzer & Kim; 2/14) – Kim and Stelzer to discuss.

(NASA would prefer full crossing of display configurations with legs versus developing subjective criteria for determining which HUD feature may be more or less relevant in each leg (initial, final,...).)

Identify pilot performance measures to collect in experiment (Kaufman, Alexander & Stelzer; 2/14) – Group to report.

Publications work:

HFES proceedings paper (Alexander et al.; 1/28 – Done)

Complete ASEM manuscript (Kaber, Kaufmann & Hsiang; 1/7 – Still in progress).

Current Issues:

Wireframe database development (Prinzel & Arthur; Status?)

Availability of IFD for preliminary and full experiment (Prinzel; Status?)

Year 2 Outcomes:

(Need to stay focused on these goals.)

Subjective clutter rating scale

Subjective clutter preference threshold and objective performance clutter threshold

Objective model of perceived clutter

Conference presentation...

Kaber, Kim & Veil to make submission to Human Factors and NextGen: The
Future of Aviation

Correlation of low-level HUD visual properties with pilot perceptions of
display clutter.

Another journal article based on Year 2 experiment.