Human Systems integration division

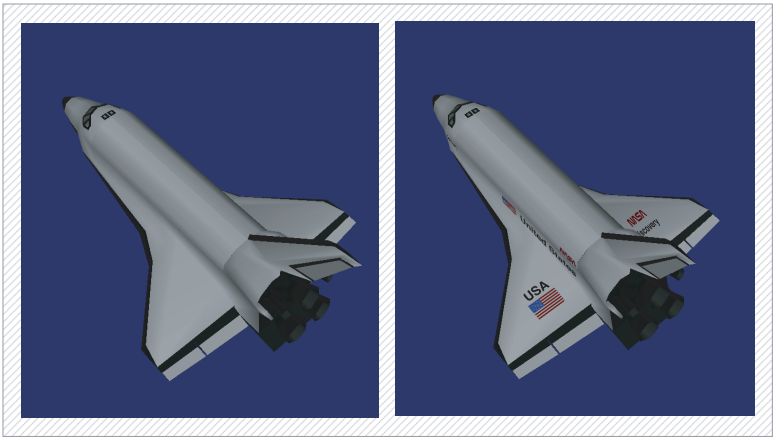
# Perceptually Tuned Visual Simulation

**Objective**

To improve performance of real-time visual simulation for aerospace systems.

**Approach**

Incorporate models of human vision capabilities into graphical rendering architecture to improve apparent visual simulation performance with reduced system load.



Exploit the limitations of visual sensitivities to intelligently cull aspects of the scene that need not be rendered.

**Impact**

Several effective graphical rendering techniques have been developed, including mixed-resolution stereo displays and spatially phase-shifted imagery.

Reduces the computational cost required to achieve a desired level of image quality and frame rate.

**Point of Contact: Mary K. Kaiser, Ph.D., Mary.K.Kaiser@nasa.gov**

**http://humansystems.arc.nasa.gov/groups/ACD**

Last updated on July 10, 2008