



Human Factors

research and technology division



Image Quality Metrics

Objective

Provide computational metrics to improve imaging displays by predicting the effectiveness of potential designs for target detection and recognition.

Approach

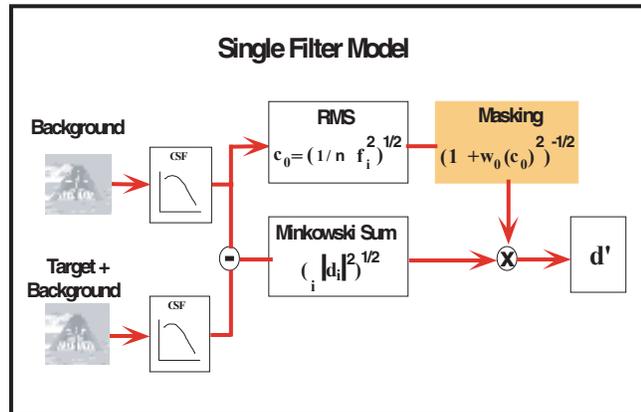
Measure the ability of human observers to make visual discriminations, then construct and test computational models to predict their abilities. Simplify models to make them designer-friendly.

Impact

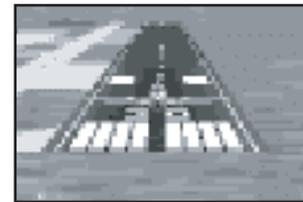
Display designers need easy-to-use computational models to evaluate the performance of potential designs. Illustrated metric has been calibrated for detecting an obstacle aircraft on a runway as viewed by an imaging sensor.

POC: Albert Ahumada, Ph.D.

URL: <http://vision.arc.nasa.gov/IHH>



Simulated runway image.



Runway with an aircraft.

