

## **Demonstrating Change with Astronaut Photography using Object Based Image Analysis**

Andi Hollier (andi.b.hollier@nasa.gov) & Amy Jagge (amy.m.jagge@nasa.gov), Earth Science and Remote Sensing Unit, Johnson Space Center, Houston, TX 77058

### **Abstract**

Every day, hundreds of images of Earth flood the Crew Earth Observations database as astronauts use hand held digital cameras to capture spectacular frames from the International Space Station. The variety of resolutions and perspectives provide a template for assessing land cover change over decades. We will focus on urban growth in the second fastest growing city in the nation, Houston, TX, using Object-Based Image Analysis. This research will contribute to the land change science community, integrated resource planning, and monitoring of the rapid rate of urban sprawl.

**Key Words:** Astronaut Photography, Object-Based Image Analysis, GEOBIA,