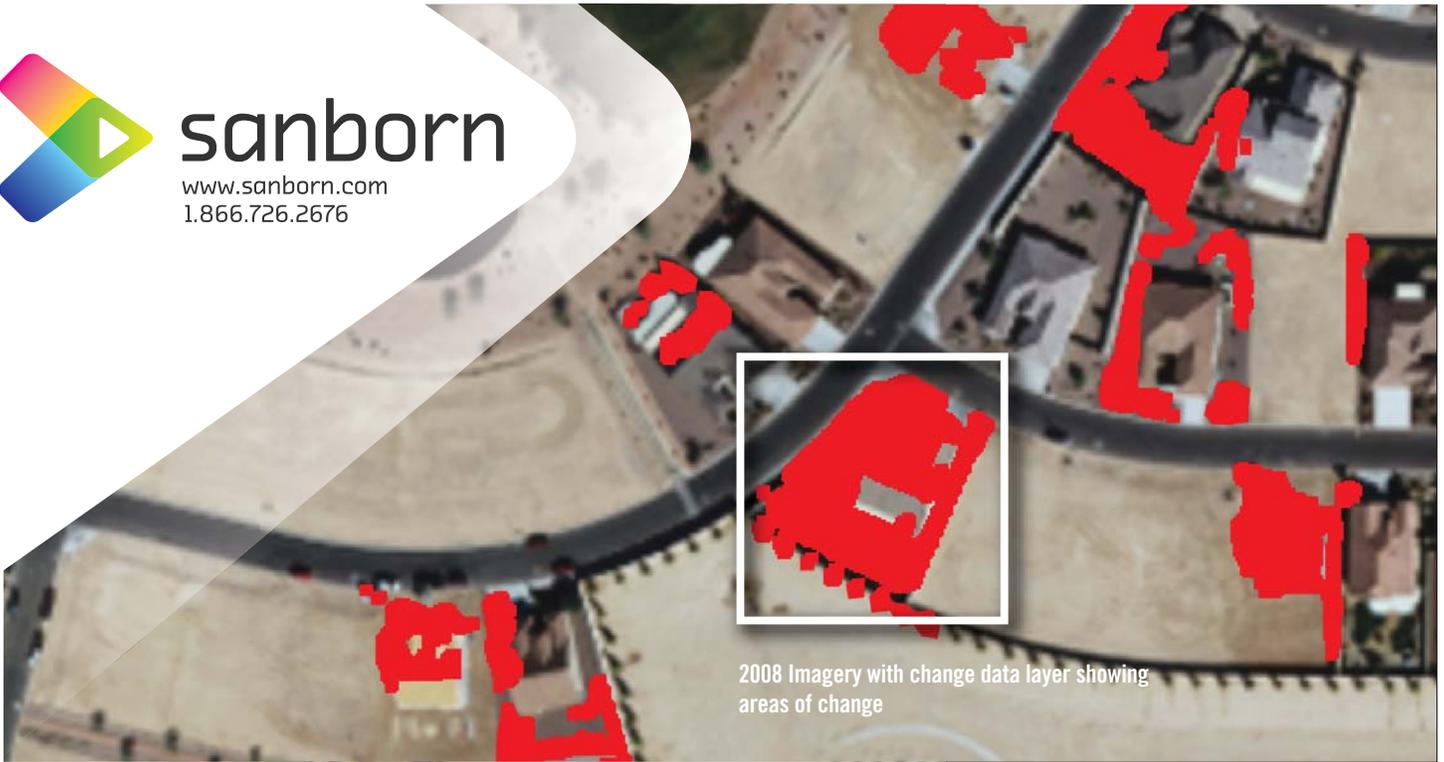




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2008 Imagery with change data layer showing areas of change



2007 Imagery



2008 Imagery

Change Detection

Using Spectral, Textural, and Linear Features to Detect Change

The landscape changes continually as a result of human activity and natural forces. These changes can have impact on ecosystem management, community planning and development, and property revenue assessments. Visually locating these areas of change in vast geographic datasets can be much like looking for a needle in a haystack. To eliminate the time and expense of visually searching data for changed features, Sanborn's advanced imagery analysis and processing techniques can be applied to multi-date imagery sets to "highlight" areas where change has occurred, enabling users to locate areas of change quickly and efficiently.

The Sanborn Change Detection process "highlights" areas and/or features where change has occurred using orthoimagery sets collected on different dates. In the example above, "highlighted" areas showing new construction are clearly identified in the 2008 imagery making the locating of and analysis of change more efficient.

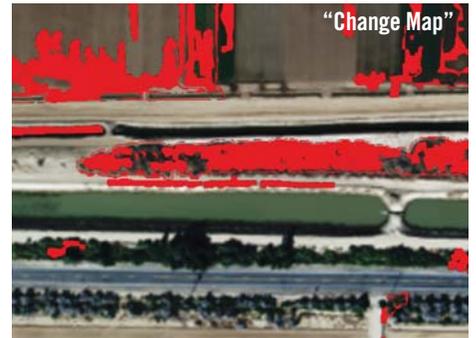
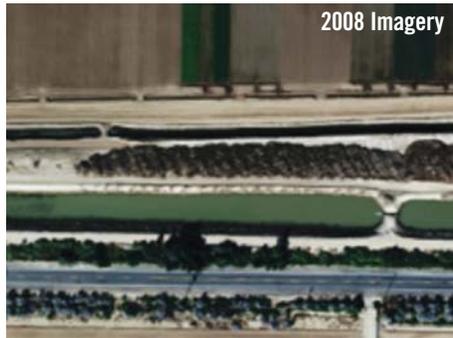
Categories Observed

- Road Surface Area
- Road Surface Type
- Forest
- Shrub Cover
- Vegetation Type
- Buildings
- Water
- Agriculture
- Land Use
- Change in Number of Objects

Detail

- Road widening or new road
- Paving / road resurfacing
- Change in vegetation
- Change in low-growth vegetation
- Forested area, change of tree types
- New structures vs no structures (no capture of features < 2,000 sq. feet)
- Large changes in rivers, lakes, ponds, pools
- Change in areas planted / crops planted
- Undeveloped land to developed land
- Addition or removal of manmade objects

Sample: Vegetation Detection



Sample: New Construction Detection



Sample: Road Improvement Detection



Conditions and Requirements

- Source imagery must be a minimum of one meter (or better) resolution
- Three-band imagery (for best results, four-band imagery preferred) from multiple years and covering the same geographic area
- Minimum geography of 50 square miles
- **Please note:** this process is designed to flag any change and in some cases variables in imagery such as seasonal changes (leaf-on vs. leaf-off), alternate sun angle (shadows), and differences in flight direction during collection, may cause false positive change detection. However, the product is designed on the premise that *over classifying* change---even if false positives exist---is preferable to missing change altogether.

Deliverables

- Change map (raster)
- Categories tagged in vector format (available at additional cost)
- All products provided as a single file (mosaic) unless file size exceeds limitations.

How to order

For more information, or to order Sanborn Change Detection Mapping Products, contact Sanborn customer service at 1.866.SANBORN or send email to: information@sanborn.com.

About Sanborn

Sanborn is a 21st century industry leader in geospatial solutions and technology, offering superior services, program management, and customer support. For our clients we provide a national presence, extensive resources, quick responses, and exceptional value. For over a century, we have been a leader in the rapidly growing geospatial industry, with successful projects delivered worldwide. For more information, visit us online at www.sanborn.com, or call 1.866.726.2676 to speak with a representative.