MODIS Fire Product Collection 6 Improvements

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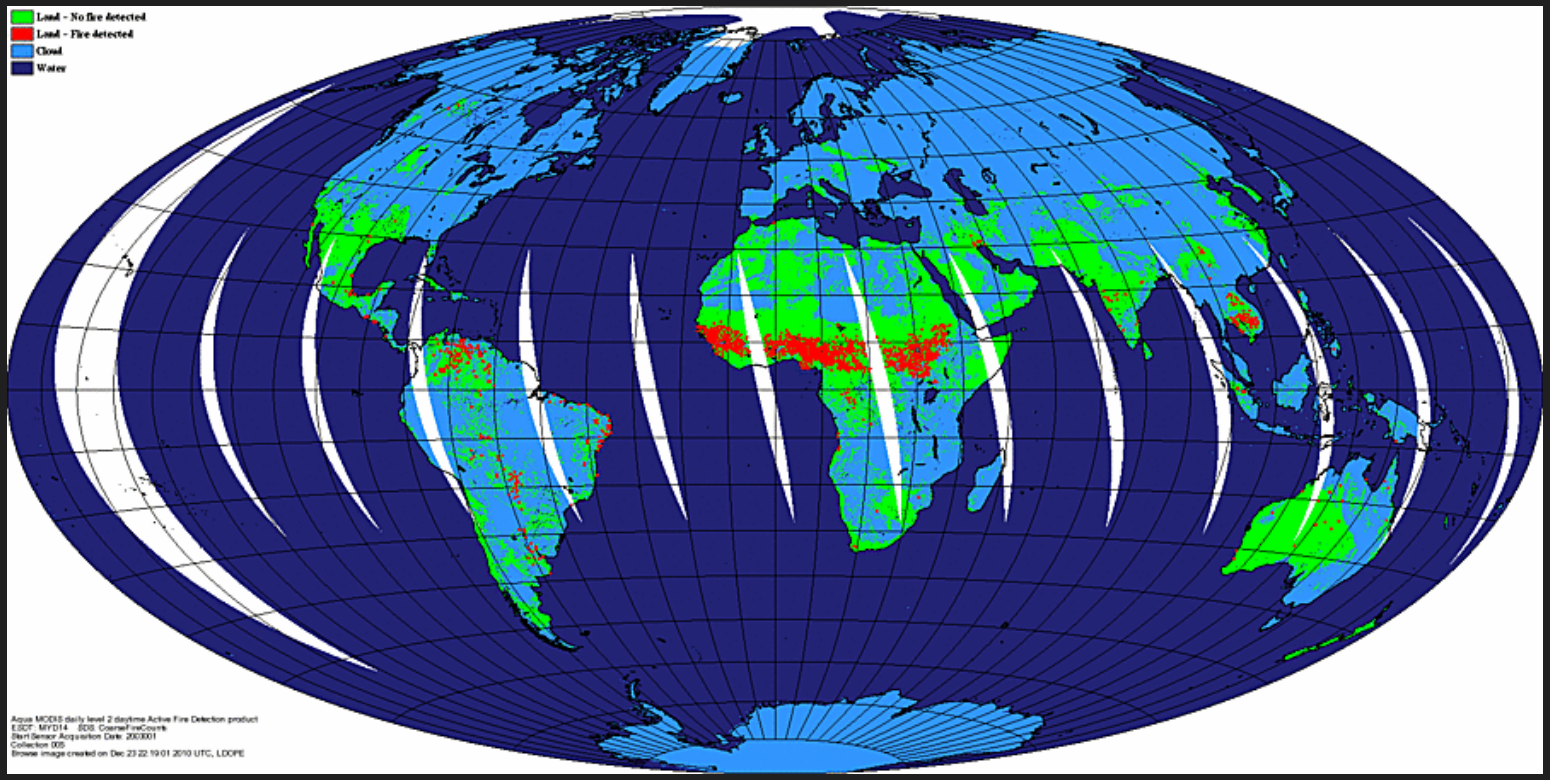
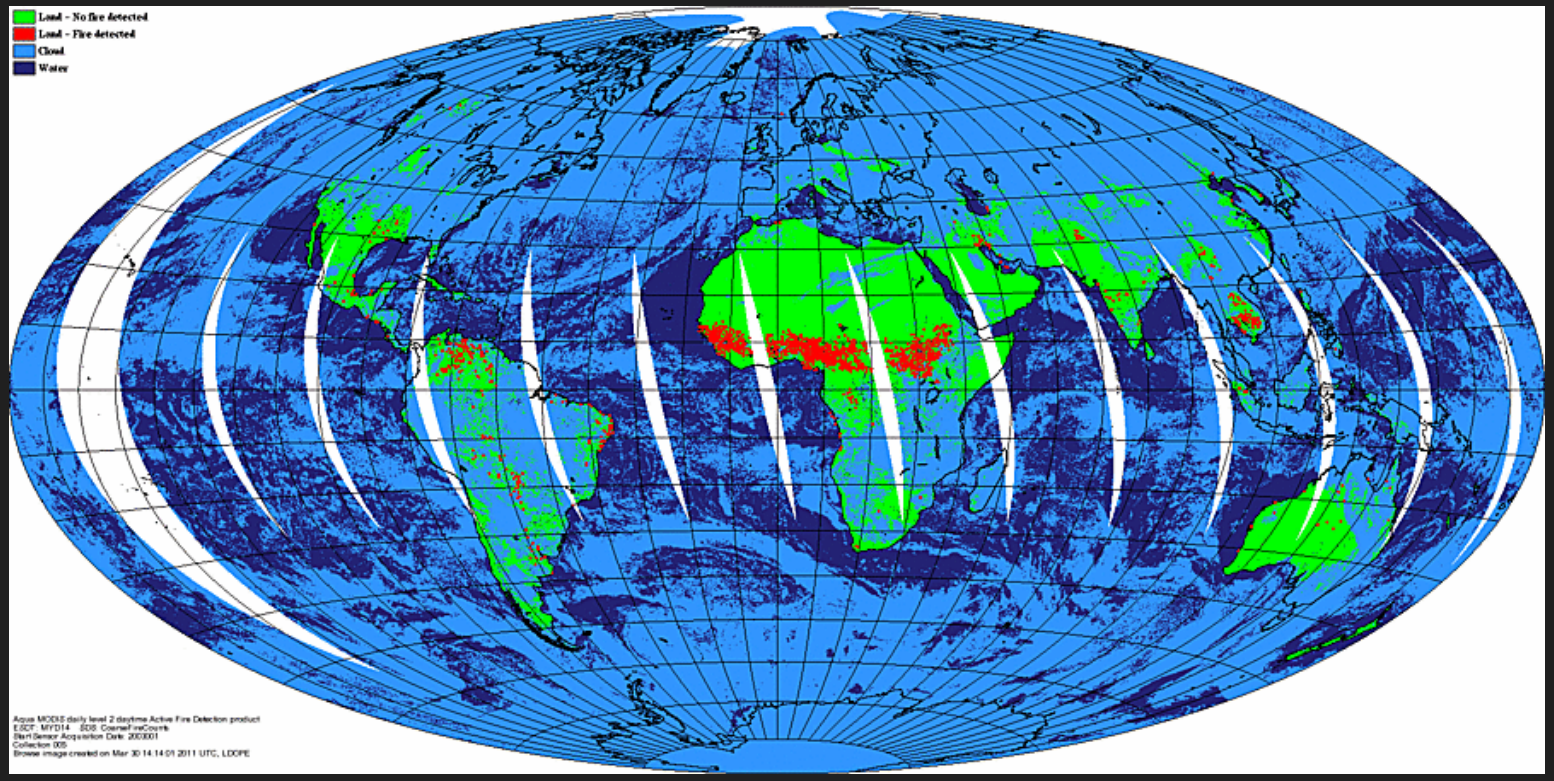
Collection 6 Algorithm Refinements

- Processing extended to oceans and other large water bodies
  - Detect off-shore gas flaring
- Reduce false alarms in Amazon caused by small forest clearings
- Dynamically adjust potential fire thresholds
  - Detect smaller fires
- Improved cloud mask
- Assorted minor improvements

Collection 5

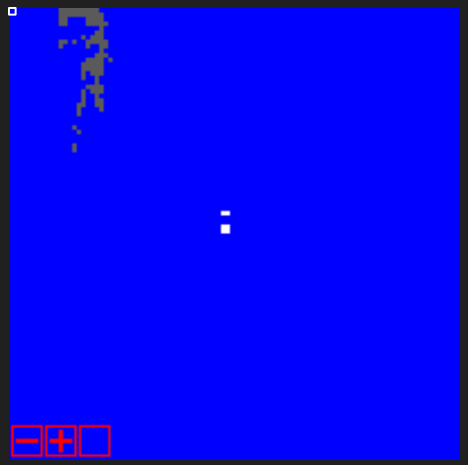


Collection 6



Deepwater Horizon Offshore Drilling Rig Fire

C6 Fire Mask

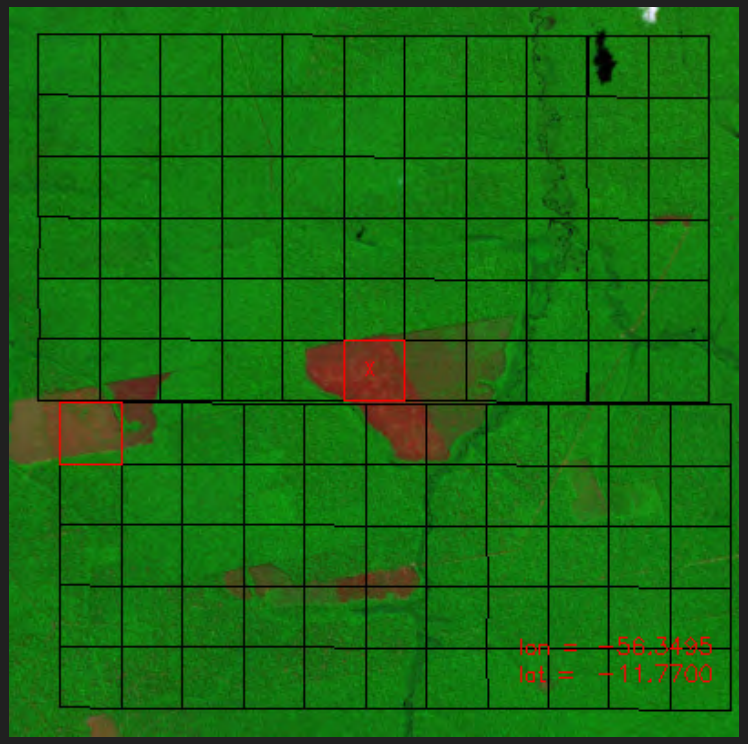


True Color

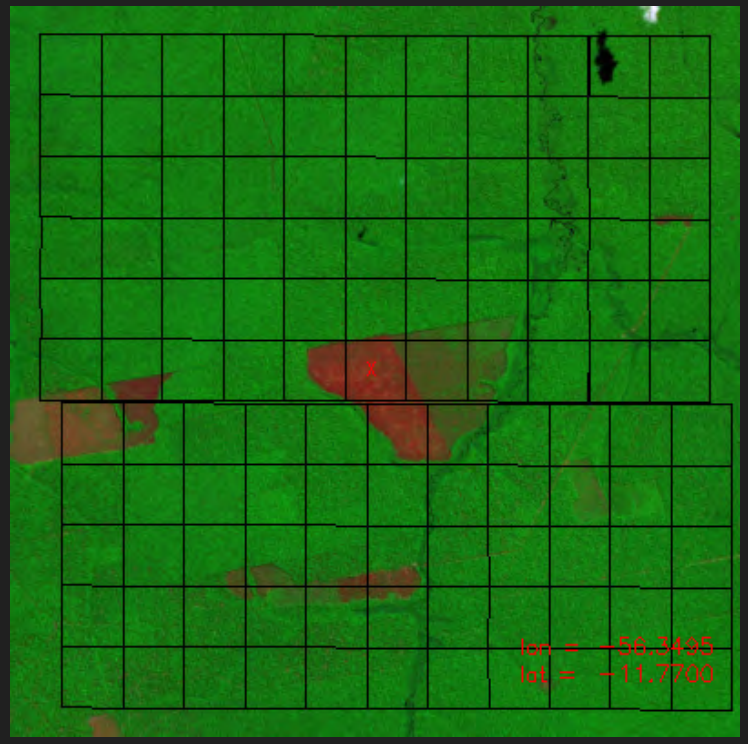
Terra MODIS 2010111 16:05 (21 April 2010)

C6 Forest Clearing Rejection-Test

C5



C6



False color ASTER imagery superimposed with approximate edges of MODIS pixels (black grid). MODIS fire pixels are outlined in red.

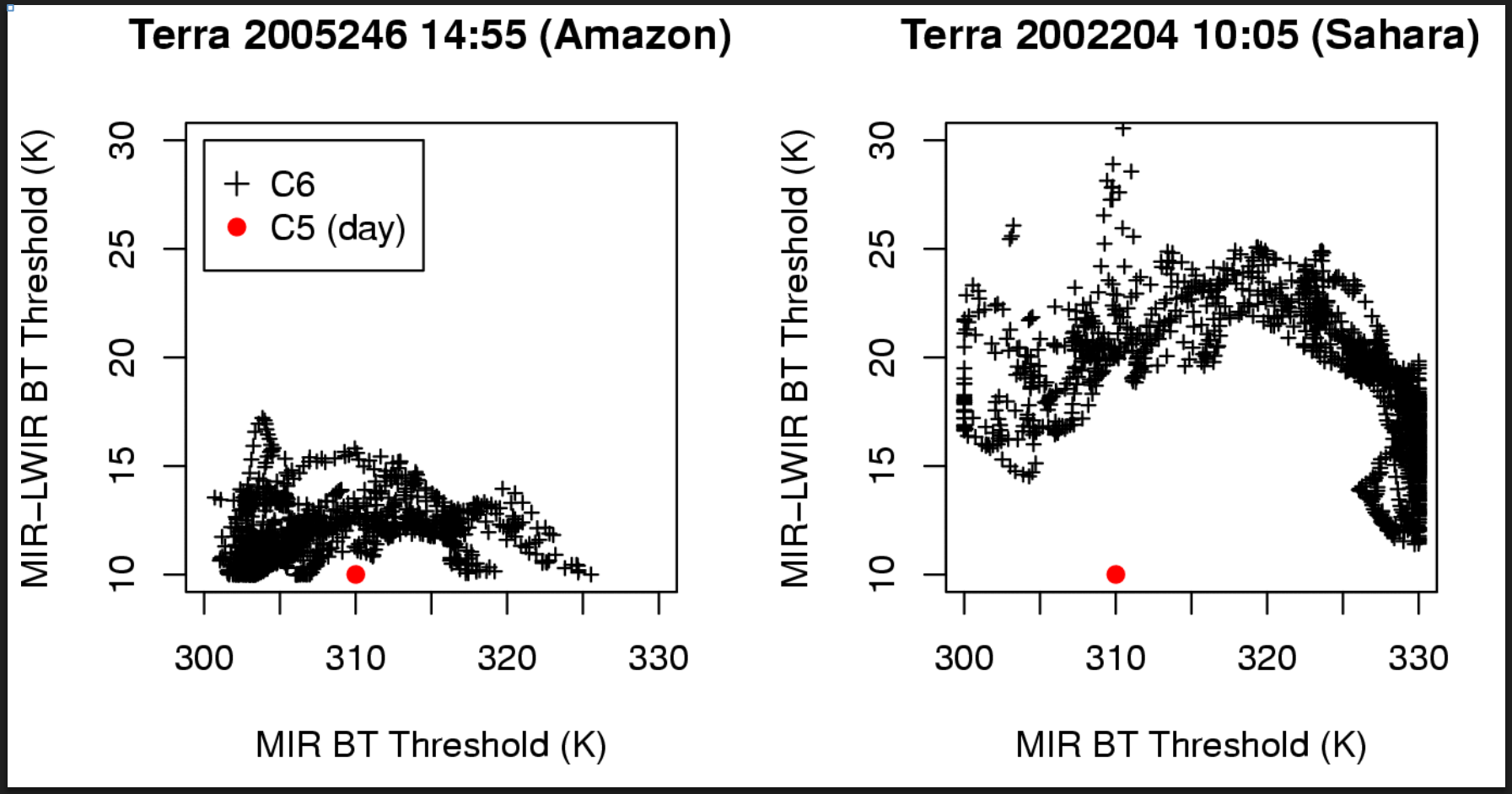
C6 Dynamic Potential-Fire Thresholds

Detection algorithm uses various thresholds to quickly identify obvious *non*-fire pixels. These are known as "potential fire thresholds".

Prior to Collection 6, fixed values were used for the potential fire thresholds, and these were applied globally. However, these thresholds really should vary with scan angle, location, land cover type, season, etc.

For Collection 6, the potential fire thresholds are set dynamically.

C6 Dynamic Potential-Fire Threshold Examples



Collection 6 Higher-Level Product Refinements

- 0.25° CMG product
- New CMG product layers
  - fire persistence
- Minor Level 3 product refinements