Evolution of the NASA Blue Marble

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earthobservatory.nasa.gov

Robert Simmon · Sigma Space

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The Blue Marble

1972 2002 2012

TIROS-1

April 4, 1960

Applications Technology Satellite-3 (ATS-3)

November 18, 1967

John Glenn

Mercury-Atlas 6

February 20, 1962

Lunar Orbiter

August 23, 1966

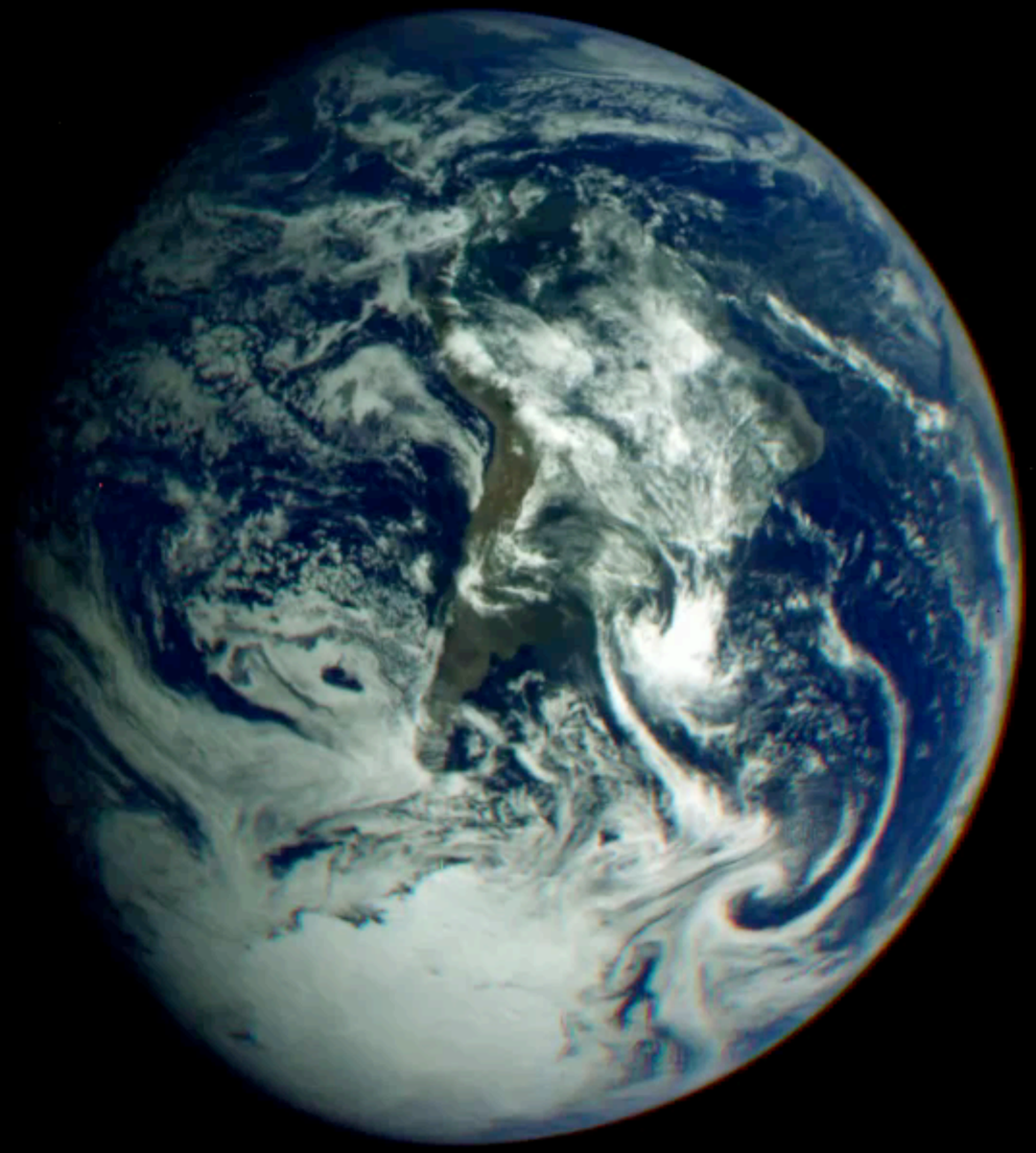
Apollo 8

December 24, 1968

Voyager 1
September 18, 1977

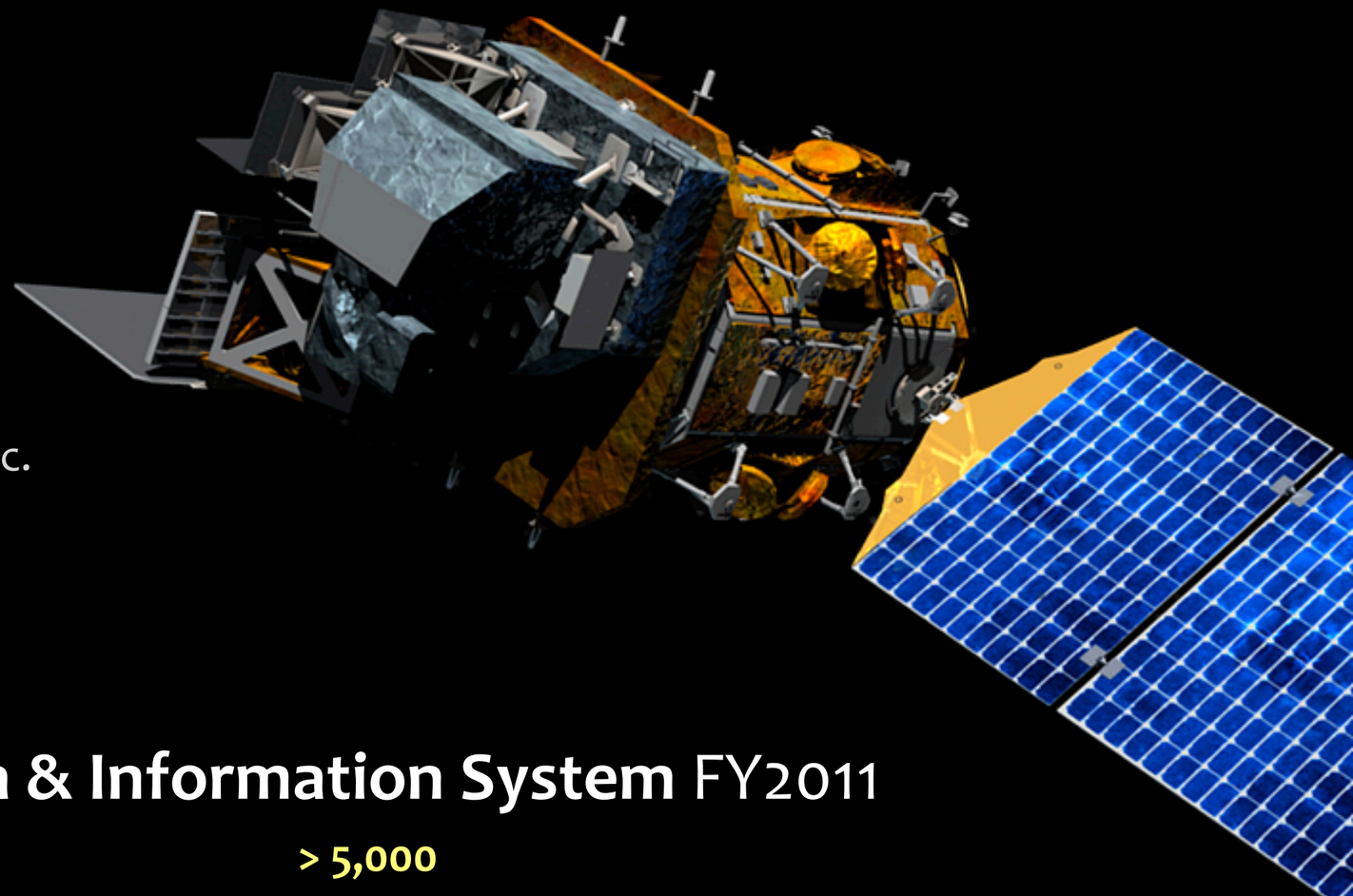
Galileo

December 11–12, 1990



Earth Observing System +

15 Active Satellites with **54** Instruments
14 Completed Missions
Multiple Future Missions,
Interagency & International Partnerships, etc.



Earth Observing System Data & Information System FY2011

Unique Data Sets	**> 5,000**
Distinct Users of EOSDIS Data and Services	**> 1,200,000**
Average Archive Growth	**1.7 TB/day**
Total Archive Volume	**5.8 PB**
End User Average Distribution Volume	**13 TB/day**

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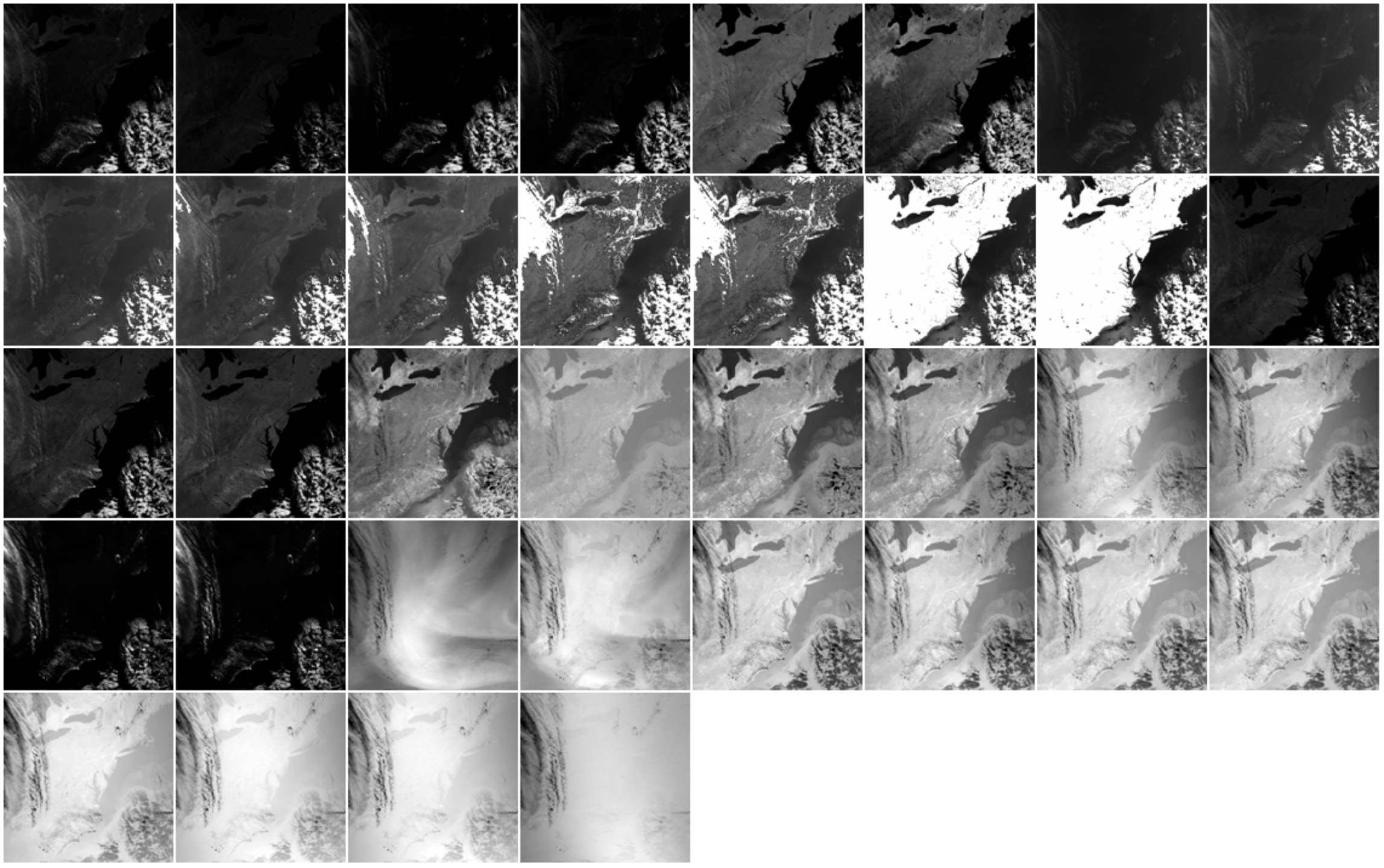
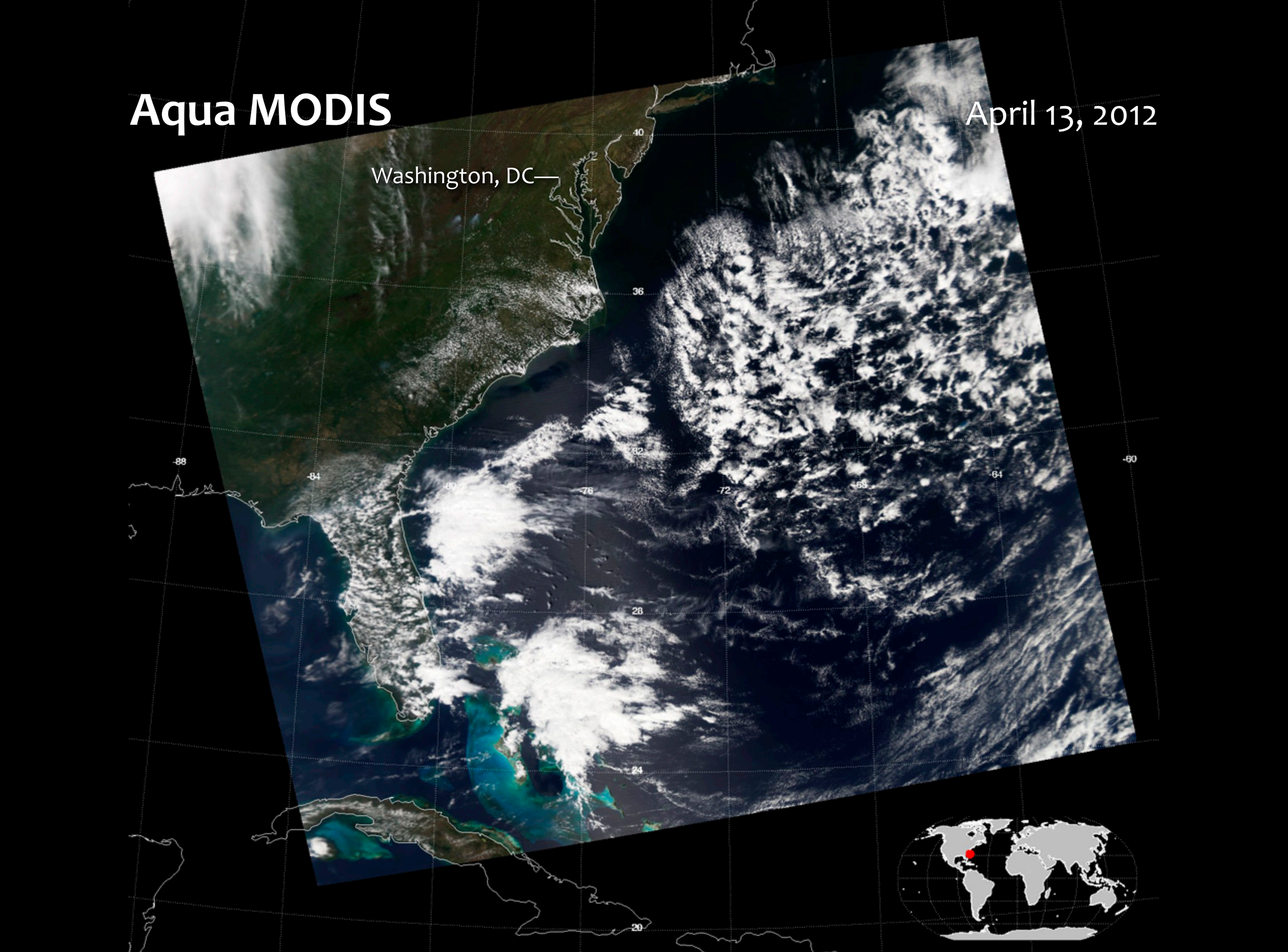
MODIS Moderate Resolution Imaging Spectroradiometer



Aqua MODIS

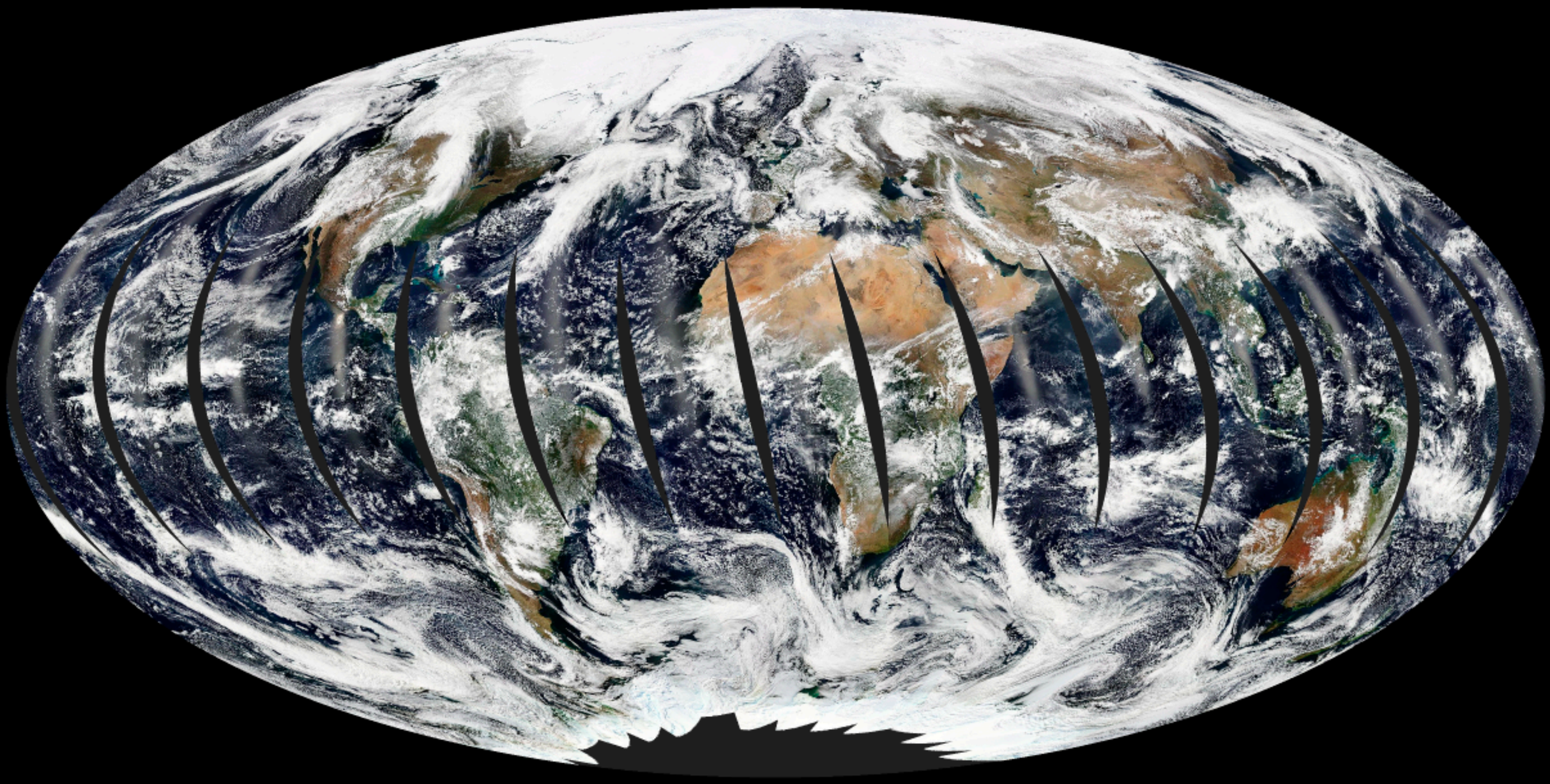
April 13, 2012

Washington, DC—



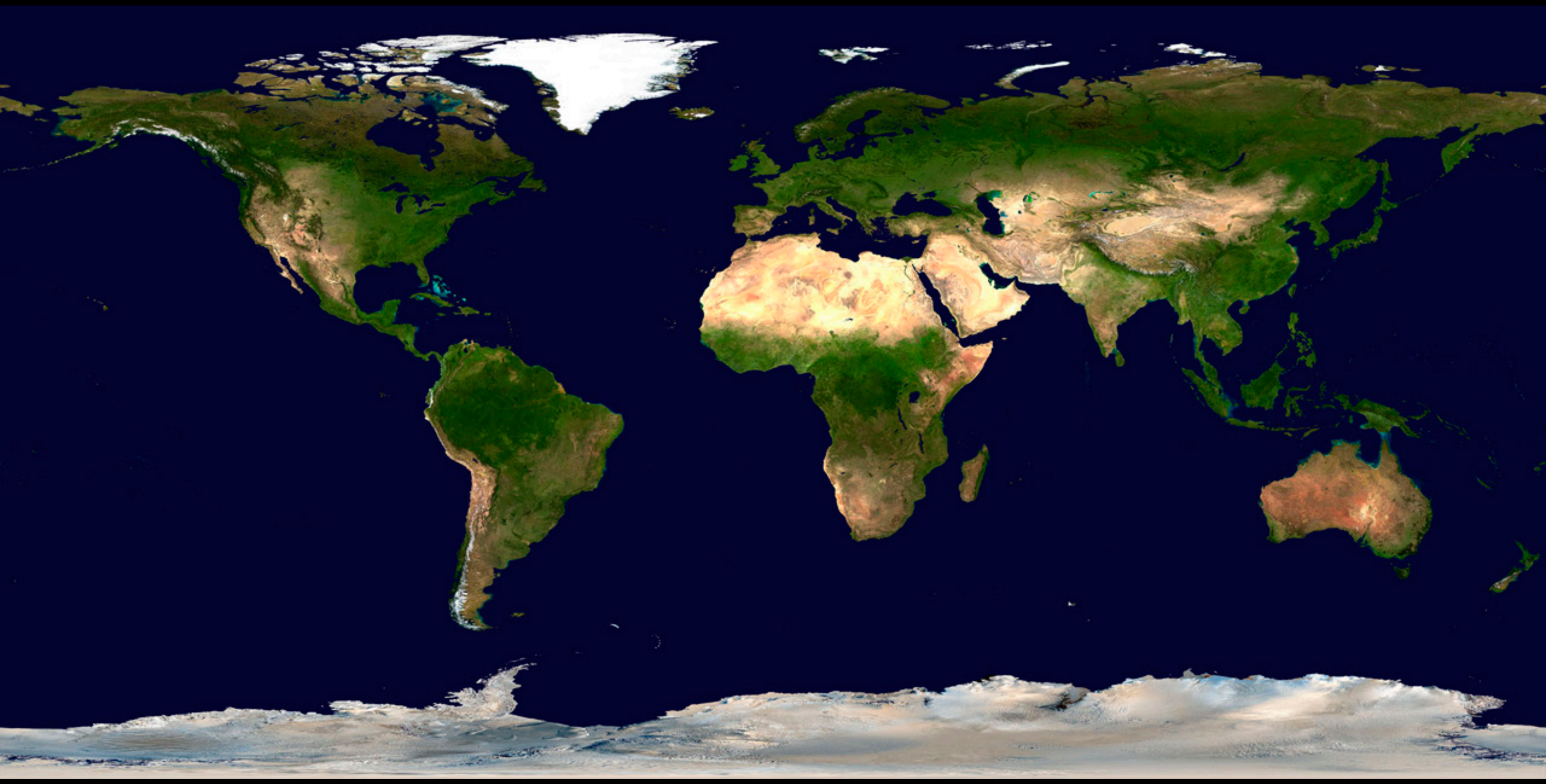
Aqua MODIS

April 13, 2012



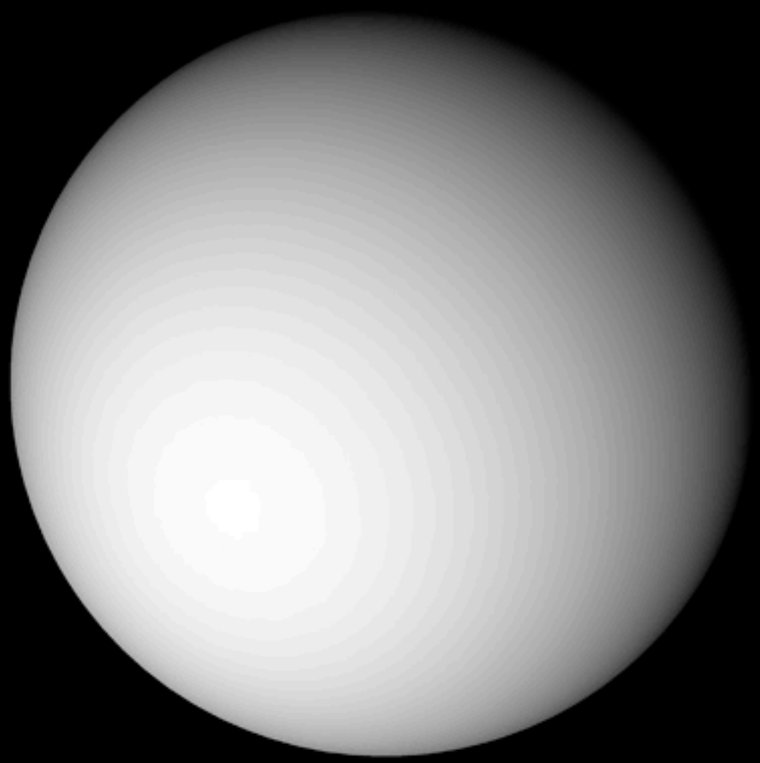
The Blue Marble

June–September 2001



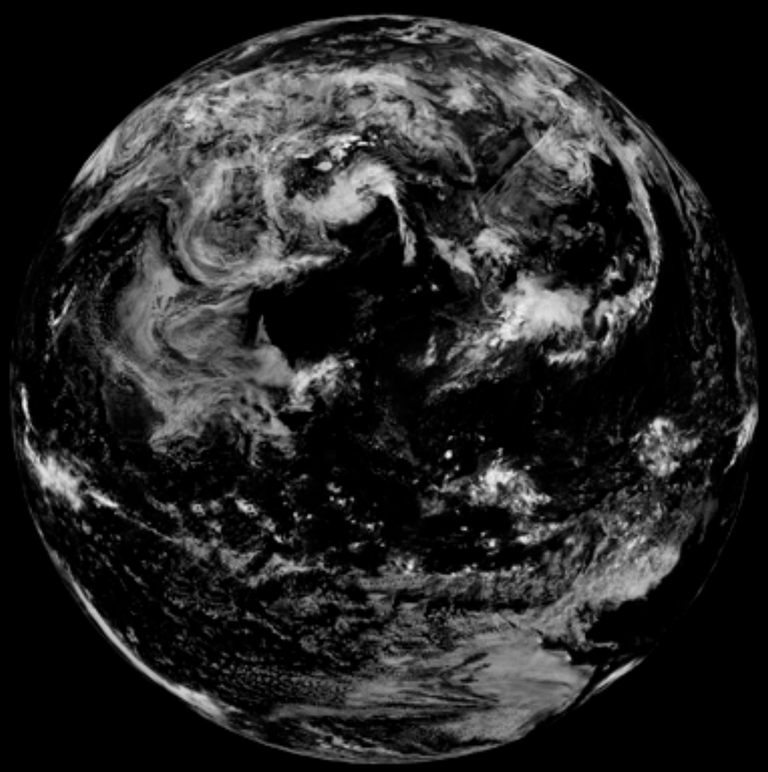
Diffuse

Specular Highlight

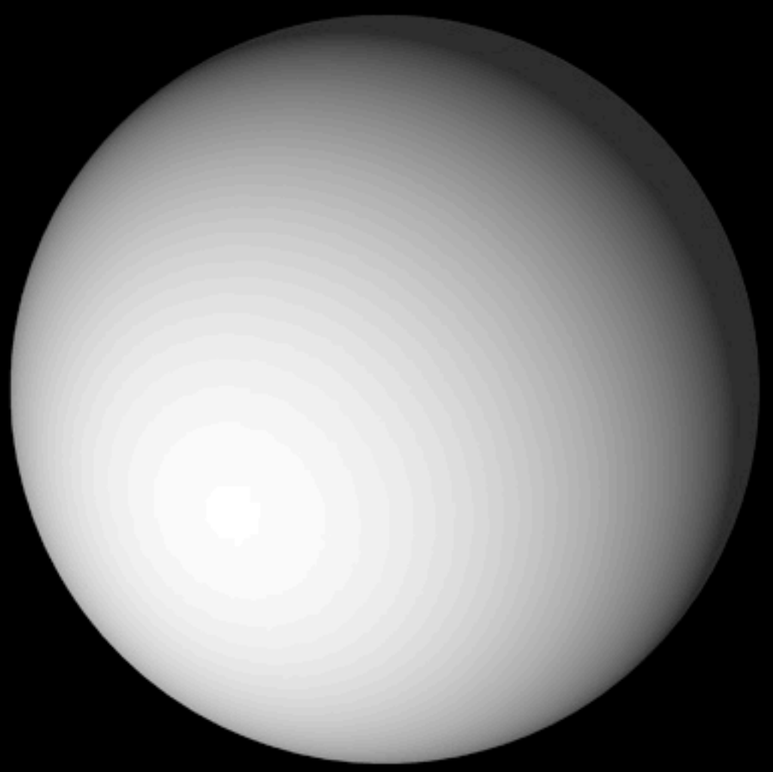


Surface Shading

Atmosphere



Clouds



Atmosphere Shading

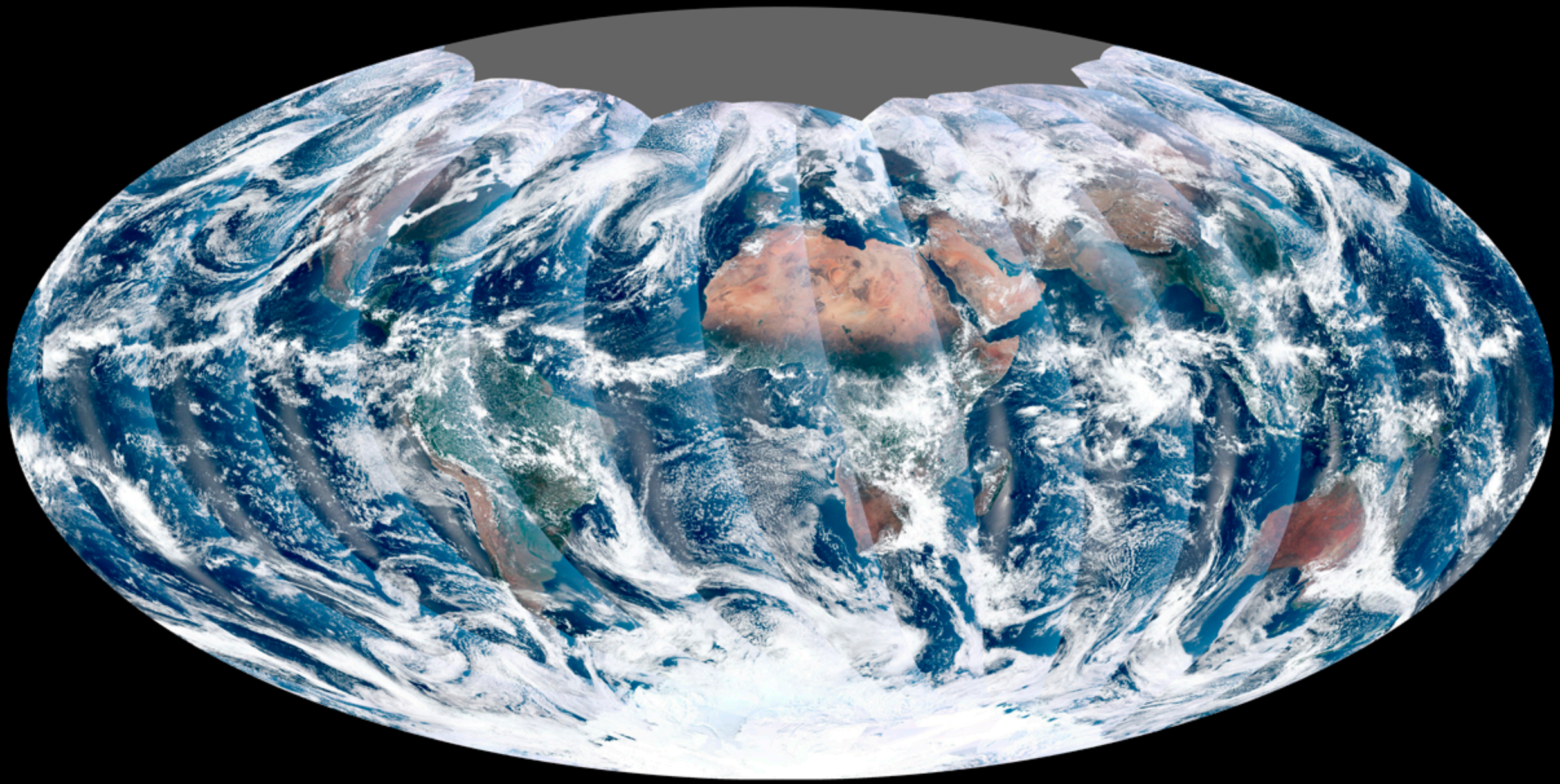
Blue Marble

Blue Marble Next Generation

2004

VIIRS

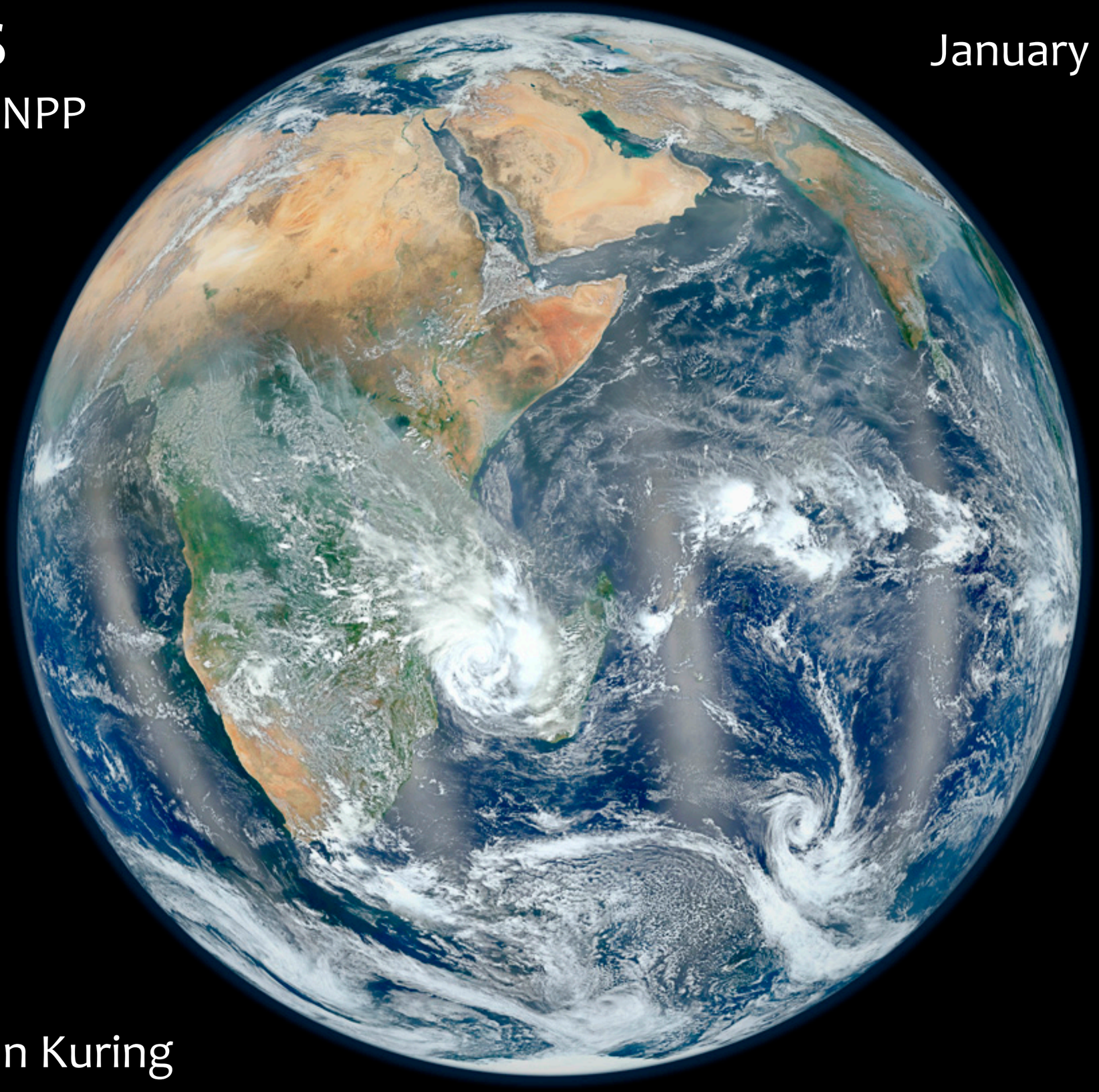
November 24, 2011



VIIRS

Suomi NPP

January 4, 2012

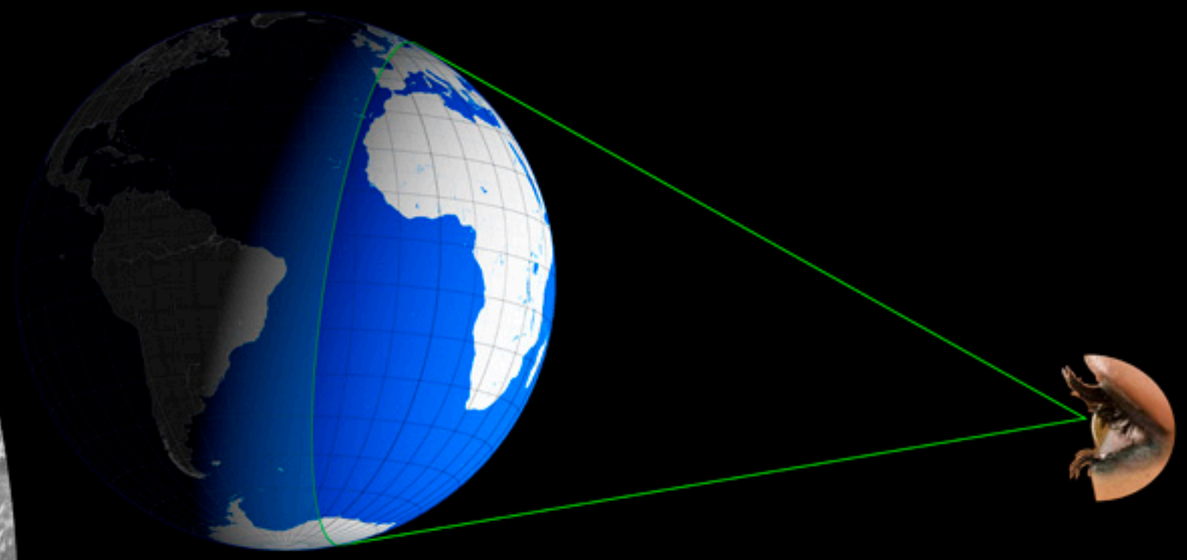


Norman Kuring

Red
671-nanometer band

Green
551-nanometer band

Blue
443-nanometer band



Orbit Overlaps

Norman Kuring

Next Steps

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