

**STATEMENT**  
**of**  
**MATTHEW O'CONNELL**  
**President & CEO of GeoEye, Inc.**  
**Before the**  
**House Committee on Science & Technology**  
**Subcommittee on Space and Aeronautics**  
**April 7, 2008**

Good morning Mr. Chairman, Ranking Member Feeney, and Members of the Subcommittee on Space and Aeronautics. Thank you for inviting me to participate in today's hearing. It's a great honor for me to share with you how GeoEye supports the state and local governments, the intelligence community and the warfighters, while providing value to our commercial customers.

GeoEye is a leading provider of geospatial information, imagery and solutions for the national security community, strategic partners, and commercial customers. We help them to better map, measure and monitor the world. GeoEye owns and operates a constellation of earth imaging satellites and two mapping aircraft. Our constellation includes the one-meter resolution IKONOS satellite, and our new satellite, *GeoEye-1*, which we will launch from Vandenberg Air Force Base this summer. It will be the world's highest resolution and most accurate commercial imagery satellite, imaging the earth with a ground resolution of 0.41-meters or about 16 inches, and will be able to produce those images in color. In addition, we have an international network of ground stations, a robust imagery archive, and advanced geospatial imagery processing capabilities.

GeoEye imagery products serve the growing national and international demand for highly-detailed imagery in applications such as mapping, national security, homeland defense, emergency preparedness, environmental monitoring, urban planning, resource management and commercial fishery. In addition to operating imaging satellites, GeoEye is a world-wide leader in advanced image processing and photogrammetry. We produce a broad spectrum of imagery products from a wide variety of satellite and airborne sensors both owned by GeoEye and those of our customers. We also create fused images, digital elevation models and land-use classification maps, and other image-derived products that enable our clients to incorporate imagery into virtually any geospatial application. We are a financially healthy and viable company, publicly traded on the NASDAQ and our revenues continue to grow.

The American remote sensing industry is not only strong and growing, we also play a critical role in supporting both national security requirements and commercial applications. Many on Capitol Hill realize that imagery from the commercial sector is the most cost-effective mapping solution for the U.S. government and **the taxpayer benefits. Here's how it works: we make about 50 percent of our revenues from international and commercial customers—so those revenues provide a significant offset in the overall price the US Government pays for imagery and services. Consequently, it is a better deal for the taxpayer. If the government builds its own imaging systems, the taxpayer pays 100 cents on the dollar (possibly more when you consider the cost overruns of some recent programs.) You could even say that we**

**are subsidizing the U.S. government, because we provide needed imagery and services at lower costs than if the government attempted to perform the function in-house.**

By supporting the commercial industry, the U.S. government receives several benefits. Our technology helps protect American security. In addition, the technology to build our satellites cannot be exported. Therefore, when the U.S. government buys imagery products and services from us, it is also protecting the American industrial base. **In short, by doing business with us, the government protects American jobs and American security at fifty cents on the dollar.** It is through this partnership that the U.S. retains technical leadership which results in allies seeking our assistance instead of developing their own competing capabilities.

Current U.S. policy encourages a robust commercial imagery segment, global leadership, and reliance on commercial imagery services, while discouraging government competition with the private sector. The commercial remote sensing industry fulfills the Department of Defense (DOD) and the Intelligence Community's (IC) mapping, charting, and geodesy requirements at a **fraction** of the cost of national systems. We believe that the industry provides best value for the government's broad area collect mission, while meeting the needs of the user community.

Mr. Chairman, thank you for your leadership and commitment to keeping the American commercial remote sensing industry strong and vibrant. Our American workforce coupled with leading-edge American-developed technologies will continue to play a significant role in national security while providing value to our international and commercial customers. I look forward to your questions.

### **Testimony Submitted for the Record**

There are multiple uses for commercial remote sensing data—to include providing assistance to public and private entities. You may be interested to know that we have almost a dozen partners in Colorado. The combined revenues of these companies exceed \$20 million, and they support hundreds of employees in the commercial remote sensing industry.

While we do sell to the U.S. government, we also **established the GeoEye Foundation which gives imagery grants to geospatial students and researchers. The GeoEye Foundation's mission is to foster the growth of the next generation of geospatial technology professionals.** The Foundation gives satellite imagery to students and faculty at select educational institutions to advance research in geographic information systems. To date, the Foundation has provided imagery at no cost to support land use studies over Mexico, polar ice studies in the Antarctic, and city planning studies over Jerusalem. The Foundation has also made grants to almost two dozen educational institutions and other non-profit organizations which include the University of Denver, Denver Metropolitan State University, the Plains Conservation Center in Aurora, Colorado, and the Mountain Studies Institute.

The Plains Conservation Center had a project aimed at prairie conservation; in particular, it focused on rattlesnakes. The Center surgically implanted radio transmitters into several female and male rattlesnakes over 2 years, and outfitted with a radio receiver,

directional antenna, and GPS receiver, and tracked these snakes from spring to fall each year with the help of trained volunteers. Information about the micro-habitat environment of each snake's tracked location, as well as natural history data was collected. While the Center learned much about rattlesnake movements, it did still need to see the snakes' movements visually using aerial views of the study site. This is where we came in.

The GeoEye Foundation offered a sharp, up-to-date satellite image of the study site to the Center without charge. From the satellite imagery, the Center could clearly see routes the snakes traveled in relation to specific vegetation types, geologic formations, and man-made structures. The image enabled the Center to compare snake movements relative to prairie dog colonies, and by overlaying the image with snake home range polygons, see the degree of overlap between snakes of both sexes. In addition, the Center was able to provide information to concerned groups as to where snakes traveled and suggest ways that people might dissuade snakes from entering their property. Naturalists at the Plains Conservation Center have used the image when speaking to school groups and visitors about prairie conservation and the role of rattlesnakes in the natural environment. We hope to see this research published in a journal soon.

You will be pleased to know that the Foundation has supported other Colorado-based requests including: the Mountain Studies Institute which requested of the San Juan Mountains in Southwest Colorado to research the impact of airborne mercury contamination in high elevation ecosystems; the University of Denver request for the Luang Prabang World Heritage Site preservation in Lao, and the Denver Metropolitan State University which requested imagery to study the impact of pine beetle infestation in and around a few Colorado ski areas.

Additionally, GeoEye does business with Colorado entities through reseller or partnership agreements with other companies. For example, last year, the City of Fort Collins purchased GeoEye imagery through one of our partners, Walsh Environmental Scientists & Engineers, to analyze prairie dog habitats and the impact on the local community.

Finally, GeoEye was glad to support to the Boulder County Sheriff's Office when it called requesting assistance in a missing person's case last fall. We acted quickly and turned over several images of the areas in question from our archives. The incident was resolved, the person found alive, and we were happy to assist.

### **[How commercial remote sensing data supports homeland security and national security?]**

GeoEye supports our warfighters, intelligence community, and first responders 24 hours a day 7 days a week. Our constellation of satellites helps to create a more robust National constellation, providing for revisit, assured access, redundancy and surge. Our satellites provide unclassified imagery and derived products that are easily used and shared by warfighters and allied/coalition partners. The GeoEye systems architecture supports direct downlink and tasking—with access to imagery in minutes. GeoEye provides the National Geospatial Intelligence Agency (NGA) imagery through the "NEXTVIEW" contract. It is also through this contract that NGA provided 50% funding for our satellite, *GeoEye-1*, which we will be launching later this summer.

The commercial remote sensing industry provides real value to the U.S. taxpayers because the government only pays for the capacity it needs. At the same time, the government benefits from access, revisit, and redundancy of the entire constellation. Our private financing enables more satellites and capabilities for the same tax dollars because the commercial segment absorbs percentage of the costs. GeoEye provides the government with a low financial risk because we bear the risk and the government only pays for data that is delivered. In order to serve our intelligence community, GeoEye has a secure facility in St. Louis, Missouri that provides provide high-quality image processing services based on the world's most advanced digital processing techniques. With more than two decades of image-processing experience, our remote sensing professionals develop, provide and deliver both radiometric and geometric image processing services. We process images from a variety of data sources including our own IKONOS and OrbView-2, as well as and high-altitude and low-altitude aerial imaging systems, Quickbird, Landsat, SPOT and IRS satellite imagery. Our processing services include radiometric balancing, geopositioning, digital elevation data production, orthorectification and mosaicking, and land-use and land-cover classification.

During Hurricane Katrina, we ceased taking imagery for our commercial customers to focus solely on the devastation in New Orleans and the Gulf area. We were moving so much imagery that our usual connection to NGA was stretched to capacity. The Department of Homeland Security (DHS) asked us to set up a separate downlink just for them, which we did immediately. Through this communications pipe, we sent DHS our entire collection of imagery of these areas. This imagery was shared with Federal Emergency Management Agency (FEMA), the military and National Guard, state and local officials. Because our imagery is unclassified, it was shared immediately as soon as it downloaded from the satellite.

**[What are the main impediments to more effective use of commercial remote sensing data for public sector applications? Our recommendations?]**

Commercial remote sensing data is making serious gains beyond the traditional national security requirements and other users. With the global internet-use explosion, interest in Yahoo Maps, Google Earth, and Microsoft Virtual Earth has also skyrocketed. No longer must one be an imagery analyst to appreciate the multiple uses of commercial imager. One could say that the internet has turned million of consumers into novice imagery analysts. I would also like to remind the Subcommittee that the imagery we sell to the on-line search engines are from our archives, and not new imagery.

Ours is a unique industry. Only we can claim that our satellites have a short time to market (typically only 3 years), when coupled with low risk acquisition approach that locks down design requirements and does not permit engineering change proposals (such as non-reoccurring engineering costs)—these **factors contribute to holding costs down while providing value to the government and the taxpayers.**

We believe that it is imperative that the U.S. government allows the American commercial remote sensing industry to continue to be the best in the world. Foreign competition is nipping at our heels. It is critical that the government removes the handcuffs so we can continue to lead, not follow, the commercial remote sensing

industry. A review of the current resolution policy of .51 meter would be an excellent starting point.

As you may know, *GeoEye-1* will collect at .41 meters, but because of U.S. policy, we must decrease the resolution and sell it to our international and commercial partners at .50 meters. Meanwhile, other countries are moving quickly ahead to build next-generation capability that will eventually best this figure. In order for our industry to continue what we do best—provide fast, unclassified downlinks, we need to continue to be on the cutting edge of technology, and not on the sidelines.

Our industry is unique in that we sell almost 50% of our data in the commercial marketplace, and it is this sector that is growing and steadily demanding concessions that the national security community may not like. However, the main objective behind the President's policy has always been to strike a balance between commercial considerations and national security requirements

The U.S. government does not need to “help” us per se, but it should not hold us back when foreign governments are actively helping its' own home-grown companies to launch smaller, better resolution satellites. Essentially, the competitive landscape has changed enough that the U.S. government is not protecting anything new by holding us back because foreign competitors are actively engaged in besting our technologies. Mr. Chairman, America's greatness should not be constrained by our own government.

## CONCLUSION:

Mr. Chairman and Ranking Member Feeney, thank you for your leadership and commitment on this very important issue. As you know, the future is already here. The demand for commercial imagery will only increase with growing government requirements and by commercial demands—to include environmental organizations, oil and gas, utility companies, and non-profit institutions. Given the growing consumer appetite for commercial imagery, we believe we are in a unique position to support both national requirements and to satisfy international and commercial needs. **In essence, if we are given the opportunity to participate—our industry will not only fulfill many of the U.S. government's requirements, but also sustain the industrial base by providing American jobs. This includes the industrial base of satellite manufacturers and ground infrastructure, the second tier subcontractors to the primes, and the geospatial intelligence community. Our imagery enables multiple applications and they, in turn, spawn new businesses. These are high-tech, highly-skilled, and good paying jobs. The Department of Labor recently highlighted geospatial technologies as one of the top three fastest growing and most important high growth industries in the 21<sup>st</sup> Century (the others were nanotechnology and biotechnology.) This is clearly a win-win situation for America and for the American taxpayers.**

**U.S. Space Policy Excerpts**

**U.S. Commercial Remote Sensing Policy (2003)**

- Rely to the maximum practical extent on U.S. commercial remote sensing space capabilities for filling imagery and geospatial needs for military, intelligence, foreign policy, homeland security, and civil users;
- Develop a long-term, sustainable relationship between the United States Government and the U.S. commercial remote sensing space industry;
- Competitively outsource functions to enable the United States Government to rely to the maximum practical extent on commercial remote sensing space capabilities for filling imagery and geospatial needs;

**U.S. National Space Policy (2006)**

- The United States is committed to encouraging and facilitating a growing a entrepreneurial U.S. commercial space sector. Toward that end, the United States Government will use commercial space capabilities to the maximum practical extent, consistent with national security
- Enable a dynamic, globally competitive domestic commercial space sector in order to promote innovation, strengthen U.S. leadership, and protect national, homeland, and economic security.
- Refrain from conducting activities that preclude, deter, or compete with U.S. commercial space activities, unless required by national security or public safety.

**Matthew M. O'Connell**  
**CEO, President and Director**



Mr. O'Connell is GeoEye's President and CEO. GeoEye, headquartered in Dulles, Virginia, is a leading provider of satellite and aerial imagery and geospatial information. The company, with 400 employees, operates two Earth-imaging satellites, IKONOS and OrbView-2, two mapping aircraft, possesses an international network of regional satellite receiving ground stations and has advanced geospatial imagery processing capabilities. Key customers include the Department of Defense and intelligence community, strategic business partners, U.S. and international resellers and commercial customers. GeoEye is traded on the Nasdaq exchange (GEOY) and is listed on the Russell 3000 index. GeoEye is launching its next generation satellite, GeoEye-1, later this year. GeoEye-1 will be the world's highest resolution and most accurate commercial Earth-imaging satellite, with a ground resolution of 0.41-meters or about 16 inches.

Mr. O'Connell has over twenty years of experience in communications management and finance. He came to the commercial remote sensing industry in 2001 as CEO of GeoEye's predecessor, ORBIMAGE. In January 2006, Orbimage merged with Space Imaging to form GeoEye, Inc. In January 2008, O'Connell was appointed by the Department of the Interior to serve on its National Geospatial Advisory Committee. In February 2008, O'Connell was elected to the U.S. Geospatial Intelligence Foundation's (USGIF) Board of Directors and in October 2007 was presented with their Industry Leader award. Also in October 2007, Deloitte named GeoEye as one of the Fast 50 companies in the Washington D.C. area, ranking the company number twelve. In June 2007, Mr. O'Connell was named "Entrepreneur of the Year" by Ernst and Young for Communications in the Washington D.C. region. The *Washington Post* ranked GeoEye number one of all companies in the D.C. area for 2006 revenue growth. Additionally, Space News named O'Connell one of the "10 Who Made a Difference in Space in 2006" and *Via Satellite Magazine* named O'Connell as "One to Watch in 2008."

Prior to joining GeoEye, Mr. O'Connell was a managing director at Crest Advisors, a New York-based private merchant bank that invested in and advised communications companies, and senior vice president of Legal and Business Affairs for Sony Worldwide Networks, a division of Sony Corporation specializing in radio and Internet programming. Before working at Sony, he served as senior vice president and general counsel of Osborn Communications Corporation, a publicly traded radio and television station operator. Prior to his tenure at Osborn, Mr. O'Connell was the assistant general counsel at Cablevision Systems Corporation, where he was responsible for acquisitions and finance, including the company's initial public offering. Mr. O'Connell began his career on Wall Street as a lawyer specializing in mergers and acquisitions and corporate finance. Mr. O'Connell holds a Bachelor of Arts degree in Classics from Trinity College, where he was elected to Phi Beta Kappa, and a Juris Doctor from the University of Virginia Law School.

# Opening Statement of Matthew O'Connell President and CEO GeoEye Inc.

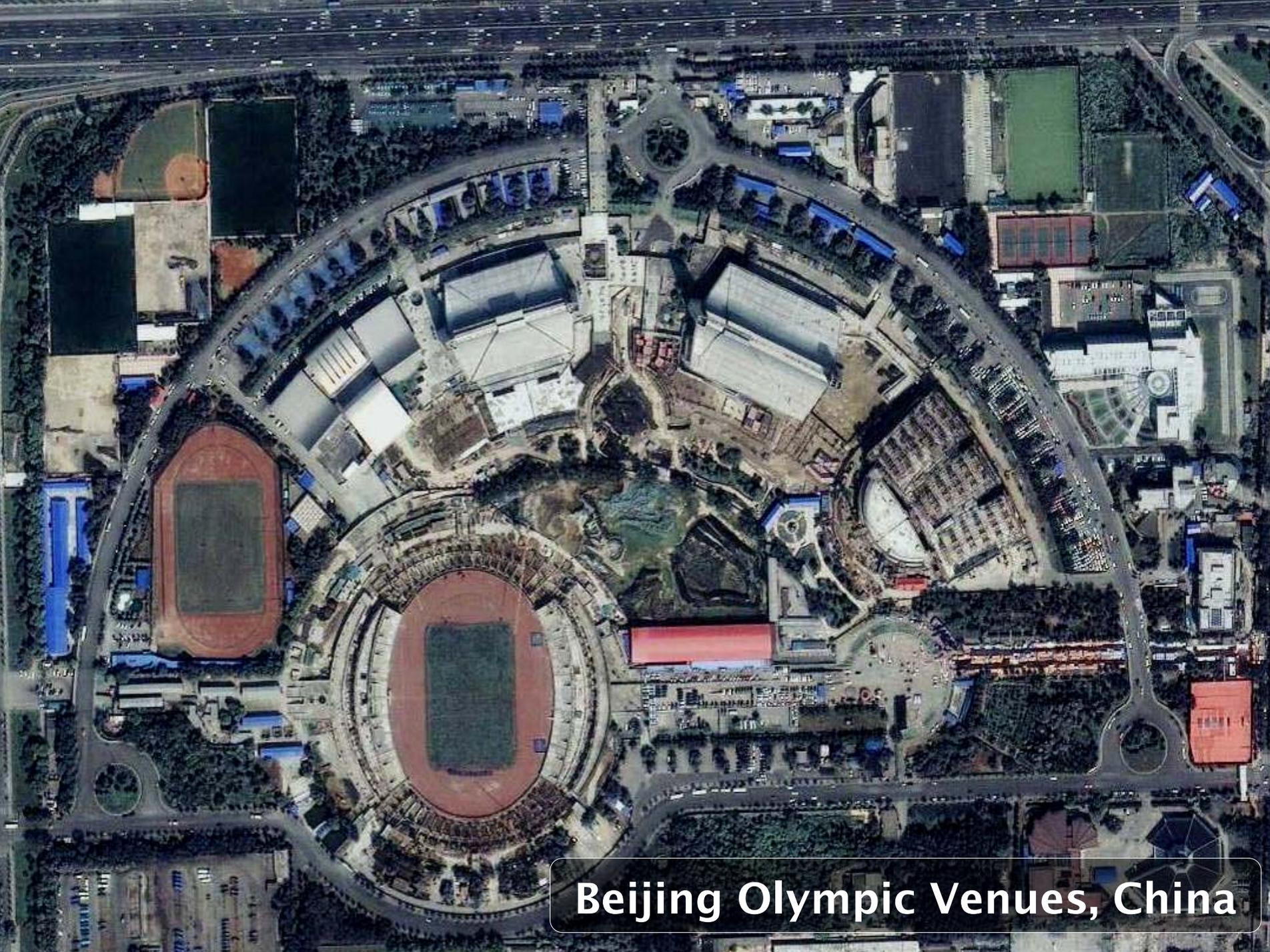
Presented to the House Committee on Science &  
Technology – Subcommittee on Space and  
Aeronautics

April 7, 2008





**Big Bear Glacier, Alaska**

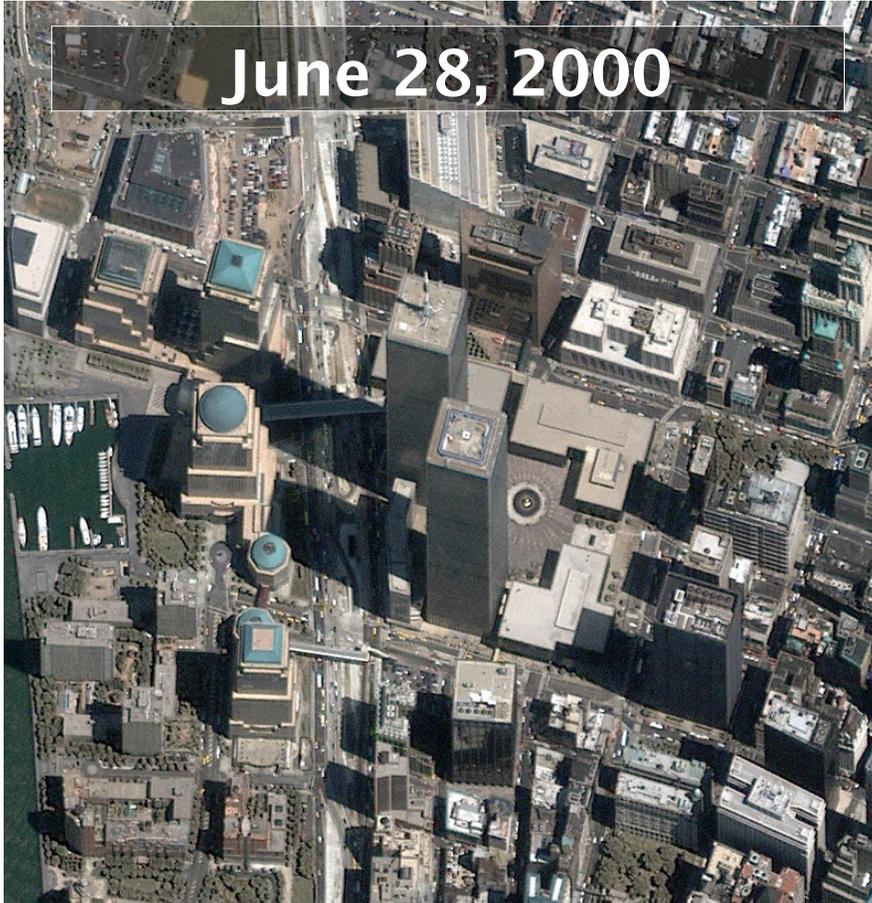


**Beijing Olympic Venues, China**



**Pearl Hermes Atoll**

# America Under Attack: Defining Moments for the Commercial Imagery Industry



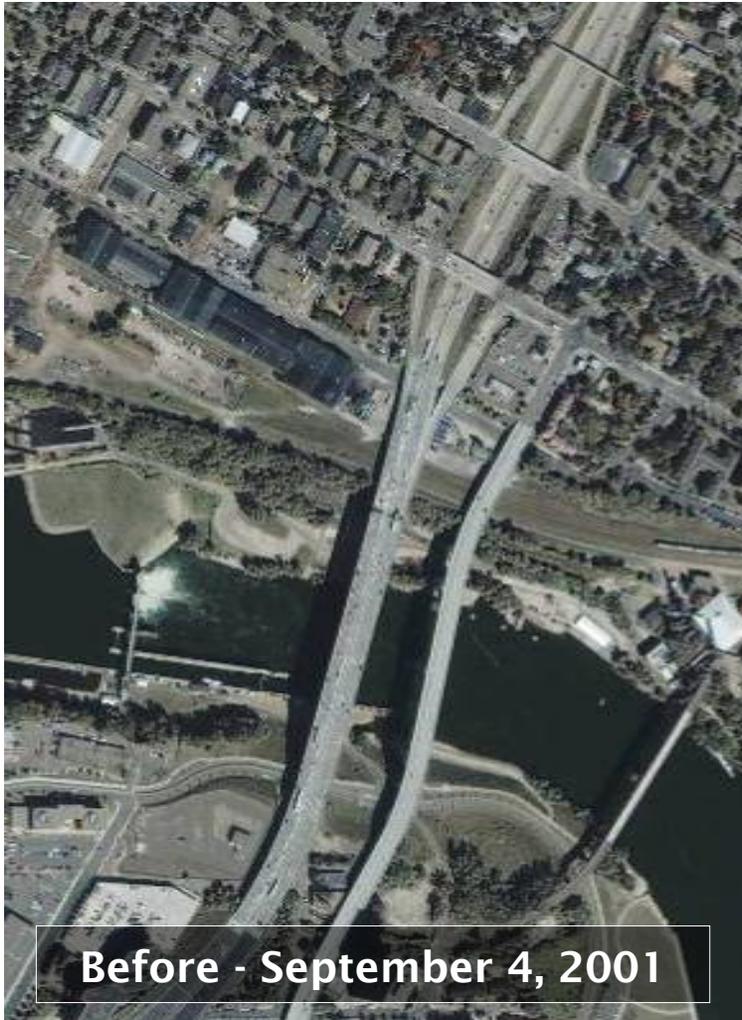
World Trade Center Site – Before and After



**Tarnak Oil Tank Farm, Afghanistan**

# Minneapolis, Minnesota

## I-35W Bridge Collapse

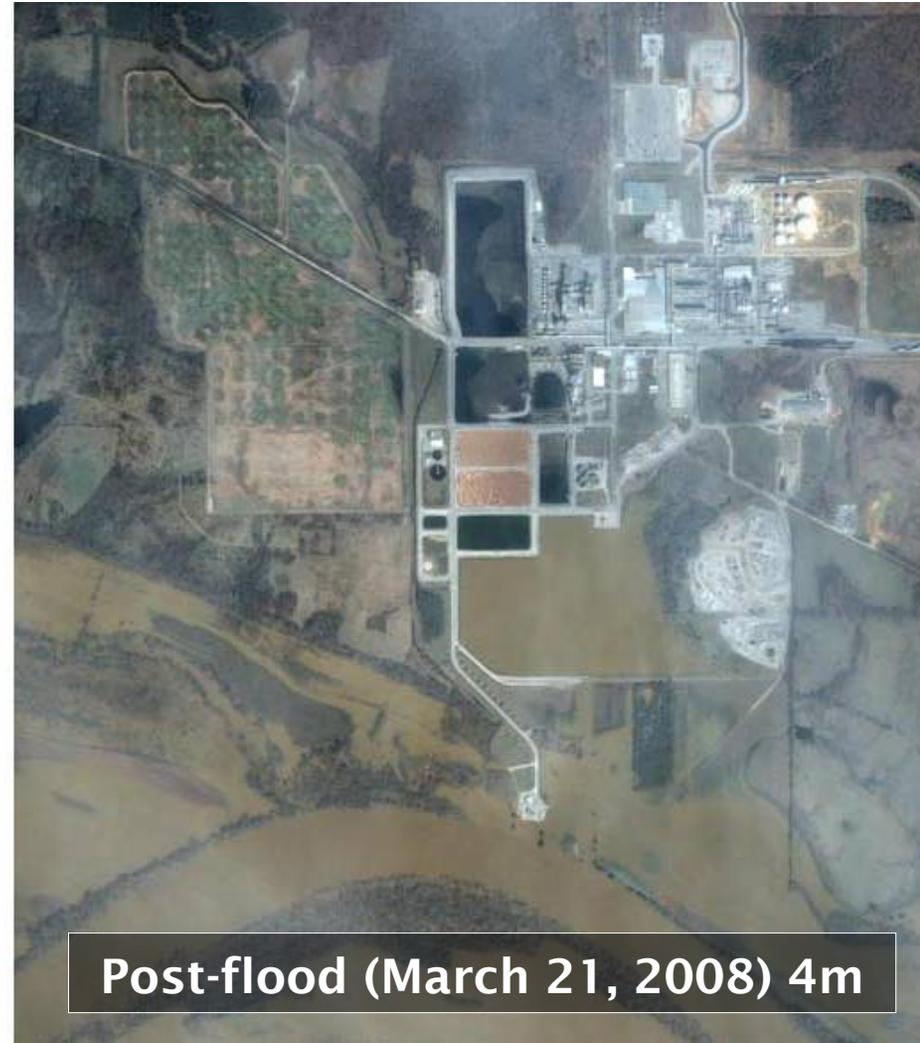


# Hurricane Katrina

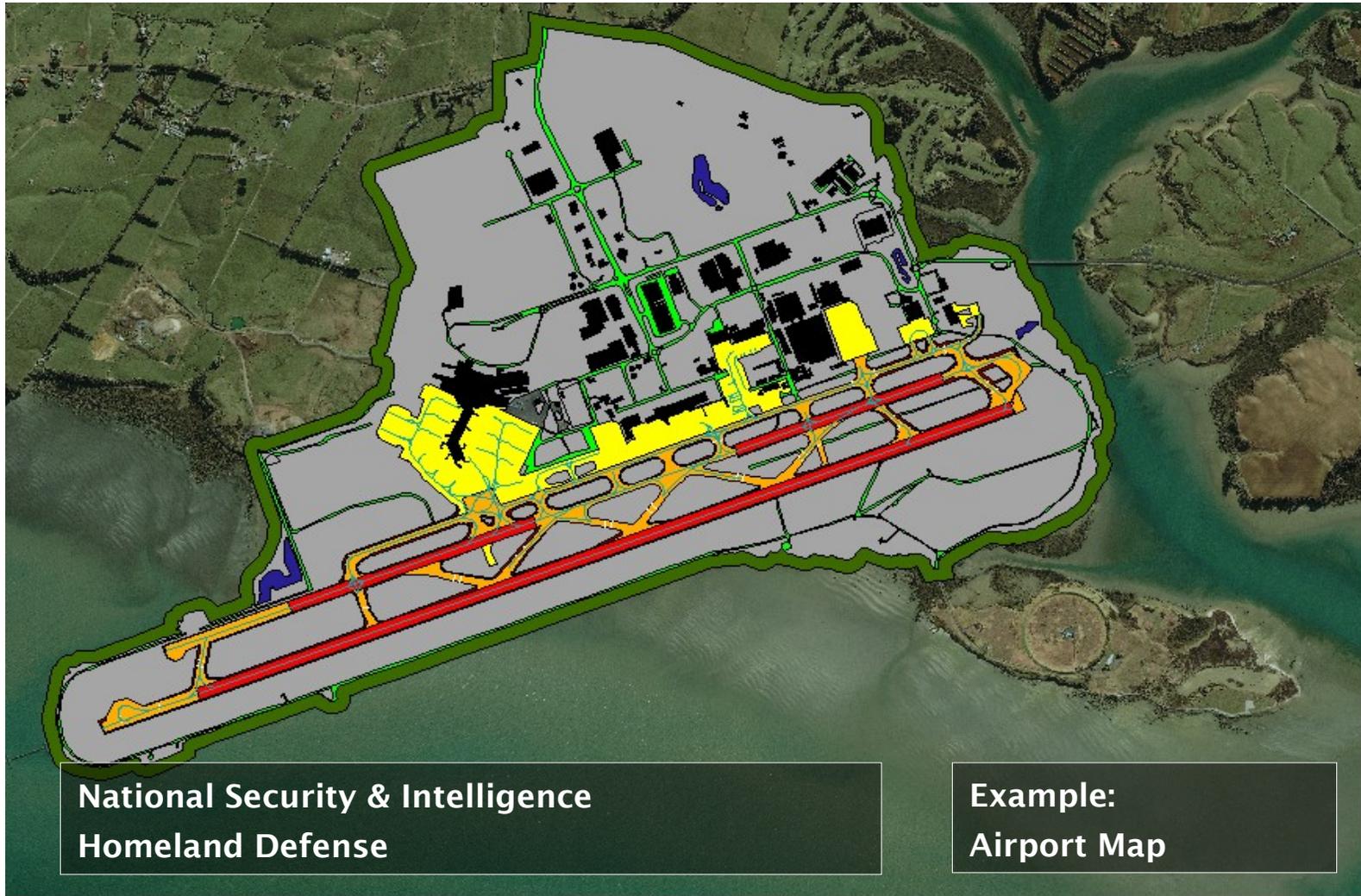
## Gulfport, Mississippi



# Newark Power Plant, Rosie, Arkansas



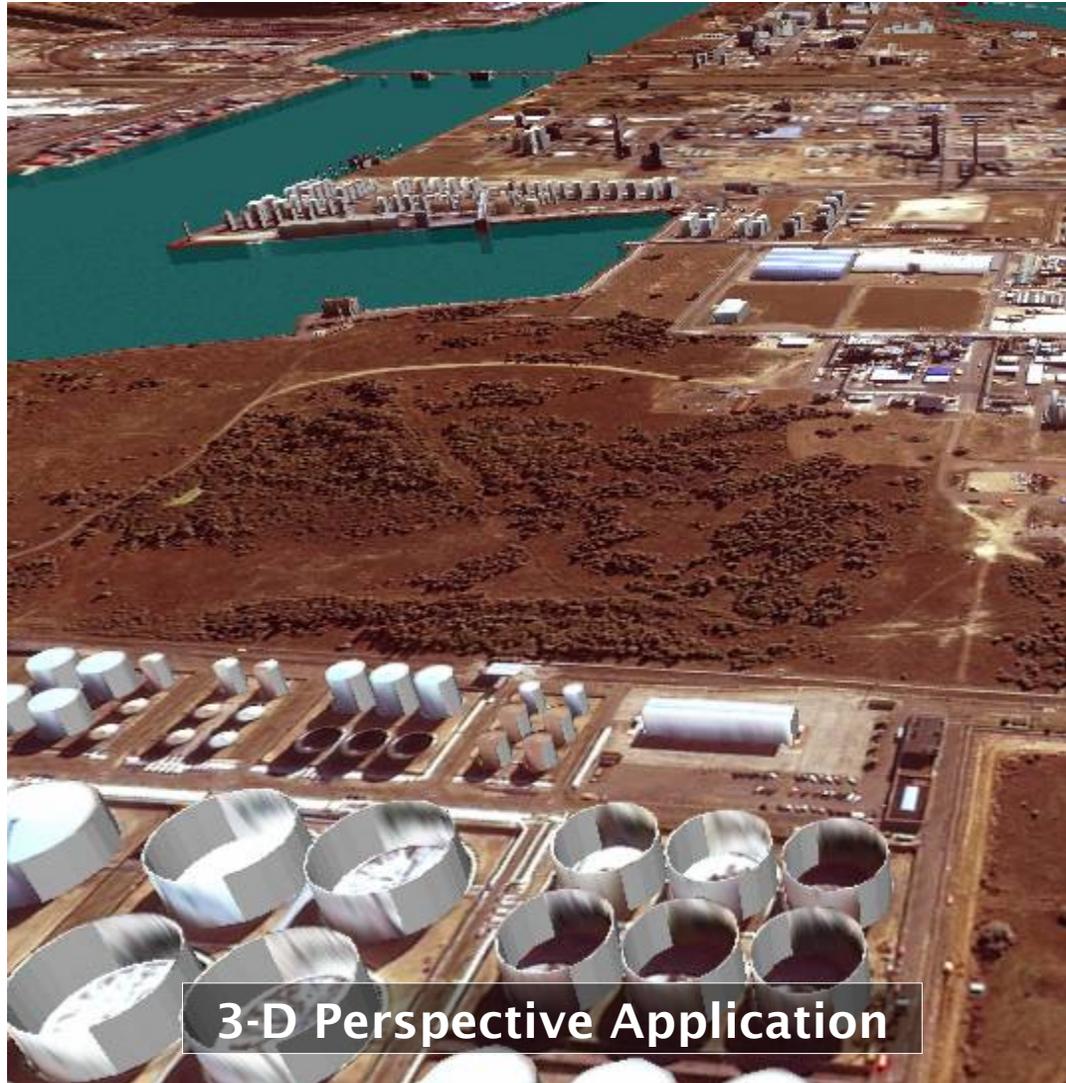
# Value Added Homeland Security Applications



# Marine and Port Protection

## GeoEye Advantages

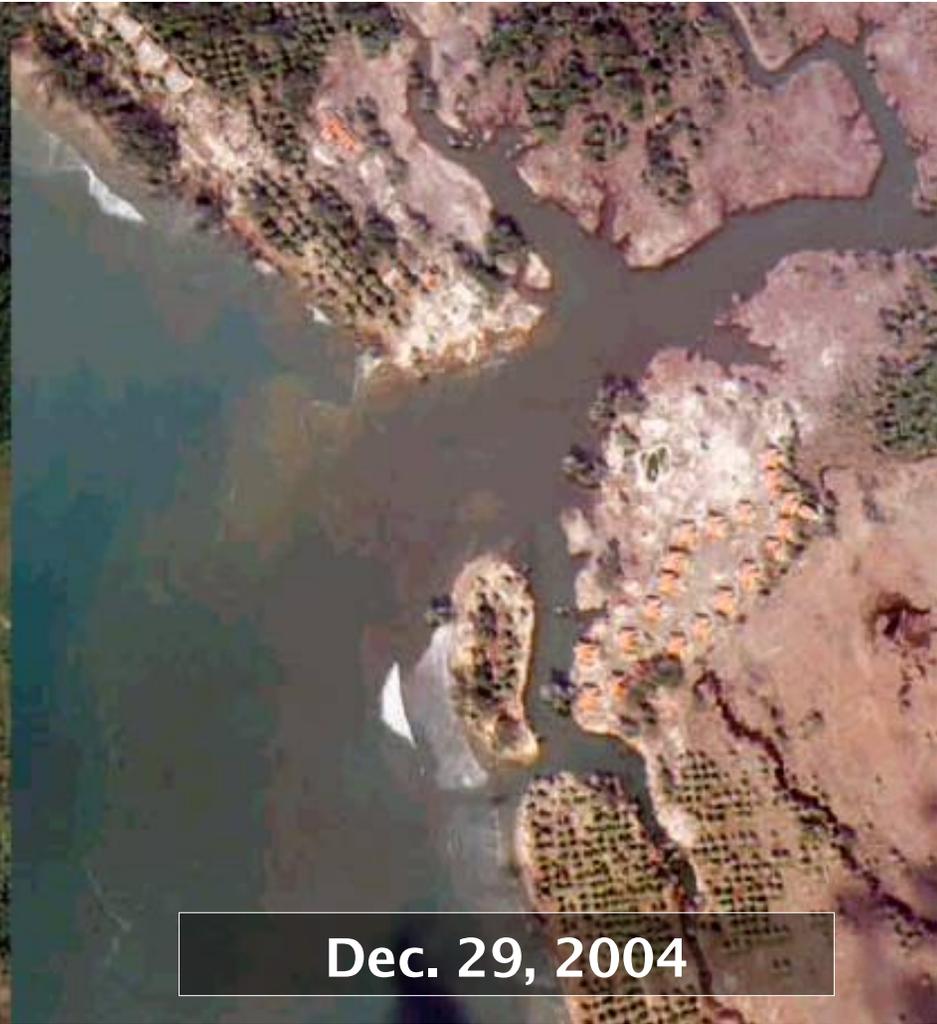
- Excellently situated to support infrastructure mapping and monitoring of:
  - Airports & Marine ports
  - Oil and Gas Pipelines
  - Highways



3-D Perspective Application

# Tsunami Post-Disaster Assessment

## Blue Village Pankarang Resort, Khao Lak, Thailand



# Environmental Monitoring

## Santa Clarita, CA Wildfires

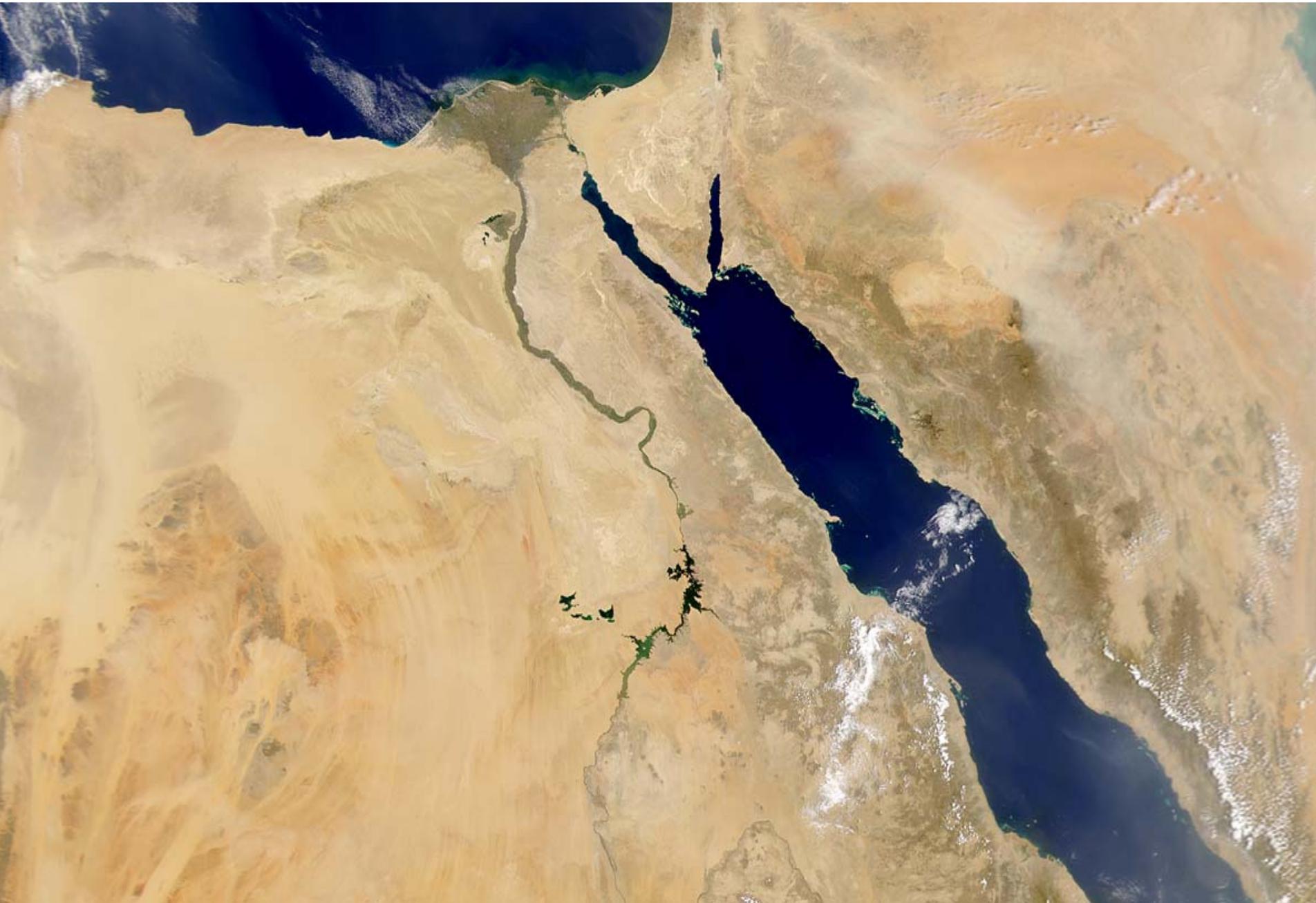


# Greensburg Kansas - Tornado Damage

Collected May 12, 2007



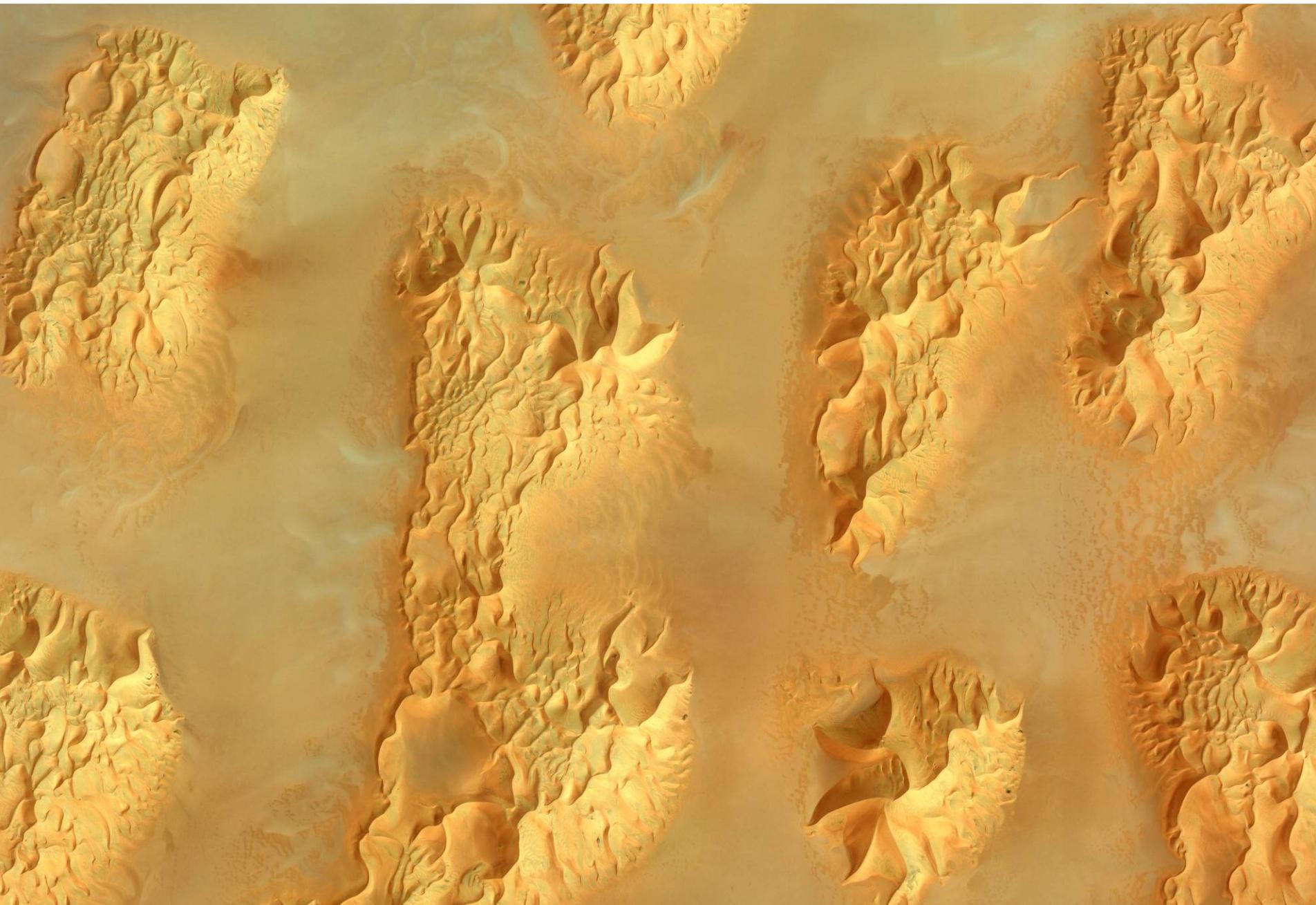
# Orbview-2 - Nile River and the Red Sea



# Durrat El Bahrain



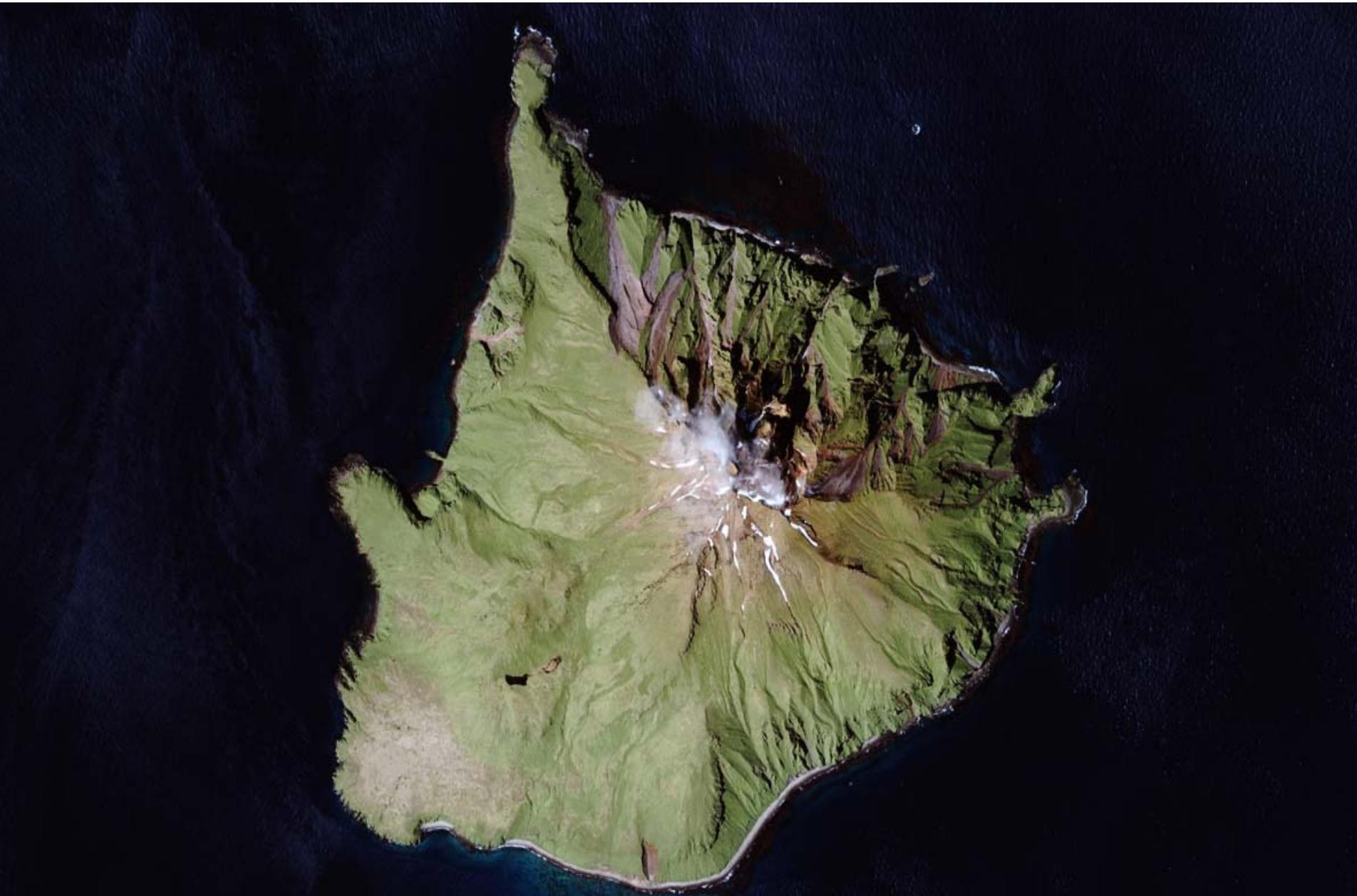
# Libyan Desert



# Nikumaroro Atoll, Pacific



# Uliaga Island, Alaska



# “Burning Man” Nevada

