Time	Event	Room	Attending
7:00 AM to 5:45 PM	Registration Desk Open	Mezzanine Level Atrium	
7:00 AM to 7:00 PM	Posters Open	301 C	
8:00 AM to 9:15 AM	Technical Program — Keynote Address	104 D	
8:00 AM to 5:00 PM	Career Interview Room Open	201 D	
9:30 AM to 11:00 AM	Technical Sessions — 1 to 11	varies, see description	
9:30 AM to 11:00 AM	Poster Presentation I	203 A	
10:00 AM to 7:00 PM	Exhibit Hall Opens	Exhibit Hall 301 C	
11:15 AM to 12:15 PM	Hot Topics	varies, see description	
12:15 PM to 1:30 PM	22nd Annual Awards Luncheon & 77th Installation of ASPRS Officers	Ballroom 104 D	
1:30 PM to 3:00 PM	Technical Sessions — 12 to 21	varies, see description	
1:30 PM to 3:00 PM	Poster Presentation II	203 A	
2:30 PM to 3:30 PM	Student & Young Professionals Event — Exhibit Hall Guided Tour for Students	Exhibit Hall 301 C	
3:30 PM to 5:00 PM	Technical Sessions — 22 to 30	varies, see description	
3:30 PM to 5:00 PM	Poster Presentation III	203 A	
5:30 PM to 7:00 PM	Exhibitors' Welcome Reception	Exhibit Hall 301 C	
7:00 PM	Espionage for a Great Cause	Offsite	

The National Geospatial-Intelligence Agency (NGA) has organized a special unclassified track to run on Tuesday and Wednesday during the technical sessions. There are four special sessions, each followed by an open discussion session, in order for NGA to get important information and feedback from attendees. Those attendees interested in participating are encouraged to attend.

Registration Desk Open
7:00 AM to 5:45 PM
Mezzanine Level Atrium, near the Hyatt Regency Hotel Skywalk

Posters Open
7:00 AM to 7:00 PM, Room: Exhibit Hall 301 C

Technical Program — Keynote Address
8:00 AM to 9:15 AM, Ballroom 104 D

Mayoral Welcome
Milwaukee Mayor Tom Barrett

PBS Premier of "The Geospatial Revolution"

ASPRS will premiere Episode 4 of the Geospatial Revolution film by Penn State Public Broadcasting. The episode explores our interconnected planet, Map Kibera, disease tracking, and the benefits and challenges of using predictive technologies for cultural, agricultural, and environmental issues.

The Open Source Geospatial Revolution

Paul Ramsey is the co-founder and visionary behind the open source spatial database system called PostGIS. PostGIS is used around the world for business, government and academia. Paul is also a member of the Open Source Geospatial Foundation.

The concept of *Open Source* and free sharing of technological information existed long before computers. *Open Source* can pertain to businesses as well as to computers, software and technology. Early instances of open source and free software include IBM's source releases of its operating systems and other programs in the 1950s and 1960s to facilitate the growth of software development. Today, Google and Amazon run on open source. At this conference, you will see the National Geospatial-intelligence Agency leading a session on open source motion imagery.

Paul's talk will cover open source technologies available for remote sensing and geospatial organizations including approaches for adoption and implementation. Come with an open mind and get ready to lead the next geospatial revolution.

Awards Presentations
Honorary Members
Photogrammetric (Fairchild) Award
Robert N. Colwell Memorial Fellowship

Career Interview Room Open

8:00 AM to 5:00 PM, Room: 201 D

Prospective employers may use this room to conduct onsite interviews. Please reserve a timeslot through the sign-in sheet posted outside the room.

Technical Program

9:30 AM to 11:00 AM

-1-

Hyperspectral and Photogrammetric Data

Moderator: Aaron Swanson, *Northrop Grumman Aerospace Systems*
Room: 201 A

Investigating the Utility of Wavelet Transforms for Inverting a 3-D Radiative Transfer Model using Airborne Hyperspectral Data to Retrieve Forest LAI
Asim Banskota, *Virginia Tech*
Randolph Wynne, Valerie Thomas, Jean Philippe Gastellu-Etchegorry, Shawn Serbin, and Philip Townsend

Description of the Second Generation Hyperspectral Airborne Terrestrial Imager (HATI)
Aaron Swanson, *Northrop Grumman Aerospace Systems*
Stephanie Sandor-Leahey, Miguel Figuroa, and Mark Folkman

Photogrammetric Triangulation of 3D Cubic Splines
Keith Blonquist, *Lidar Pacific Corporation*
Robert T. Pack

Automatic Aerial Triangulation of Vertical and Oblique Images
Yandong Wang, *Pictometry*

-2-

Using Lidar to Map Features

Moderator: James Young, *Aero-Metric, Inc*.
Room: 201 B

Mapping Solar Potential Obstructions using Lidar Data
Krista Amolins, *University of New Brunswick*, Canada
David Coleman, Yun Zhang, and Peter Dare

Innovation in Lidar Feature Extraction
James Young, *Aero-Metric, Inc.*

Building Footprints Extraction of Dense Residential Area from Lidar Data
KyoHyouk Kim, *Purdue University*
Jie Shan

Building Roof Contour Extraction from Lidar Data
Aluir Dal Poz, *Sao Paulo State University*, Brazil
Edineia Galvanin

-3-

Deriving Tools to Automate Analysis

Moderator: Hongwei Zhu, *ESRI*
Room: 202 B

Automated Image Georeferencing in ArcMap
Hongwei Zhu, *ESRI*
Peng Gao, Xiuguang Zhou, and Qian Liu

On the Utility of Models for Time-sensitive Remote Sensing
Christopher Lippitt, *San Diego State University/UCSB*

An Automated Method to Estimate In-flight Image Quality Parameters from High Spatial Resolution Imagery
Mary Pagnutti, *Innovative Imaging and Research*
Robert Ryan

Automated Object Height Retrieval from Lidar to Develop Complex Urban Scenario
Abduwasit Ghulam, *Saint Louis University*

ASPRS CONFERENCE SCHEDULE

ASPRS 2011 Fall Pecora Conference
Hilton Washington Dulles Airport Hotel
Herndon, Virginia
November 14-17, 2011

ASPRS/MAPPS 2012 Fall Conference
Marriott Tampa Bay Waterside Hotel
Tampa, Florida
October 29-November 1, 2012

ASPRS 2012 Annual Conference
Sacramento Convention Center
Sacramento, California
March 19-23, 2012

ASPRS 2013 Annual Conference
Baltimore Marriott Waterfront Hotel
Baltimore, Maryland
March 25-29, 2013

-4-

Monitoring Forest Conditions

Moderator: Chris Aldridge, *Continental Mapping Consultants, Inc.*
Room: 202 A

Using Object-oriented Classification to Map Forest Community Types
Meghan MacLean, *University of New Hampshire*
Russell Congalton

A Geospatial Assessment of Mountain Pine Beetle Infestations and Their Effect on Forest Health in Okanogan-Wenatchee National Forest
Evan Johnson, *DEVELOP*
Andrew Nguyen, Evan Johnson, Emily Williams, and Stephanie Tsai

Spectral Analysis of Scotch Pine Infested by *Sirex noctilio*
Lindi Quackenbush, *SUNY ESF*
Nishan Bhattarai, Laura Calandra, Jungho Im, and Stephen Teale

Separating the Condition of Mangroves Within a Degraded Forest of the Mexican Pacific using Laboratory Hyperspectral Remote Sensing Techniques
Chunhua Zhang, *East Tennessee State University*
John M .Kovacs, Yali Liu, Francisco Flores-Verdugo, and Francisco Florest-De-Santiago

-5-

Assessing Environmental Dynamics

Moderator: Doug Fuller, *Aero-Metric*
Room: 203 B

Assessing Remotely Sensed Techniques for Measuring Vegetation Phenology
Jonathan Thayn, *Illinois State University*

Vegetation Dynamics and Land Cover Change Trajectories Analysis for Understanding Environmental Implication in Lower Missouri River Area
Yuyan Chen, *St. Louis University*
Abduwasit Ghulam and Ana Londono

Analysis of Mass Balance Change in Imja Glacier of Nepal using Remote Sensing Techniques
Kabindra Joshi, *Mississippi State University*
Shrinidhi Ambinakudige

Assessing Available Woody Plant Biomass on Rangelands with Ground-based Lidar
Nian-Wei Ku, *Texas A&M University*
Sorin Popescu

-6-

Innovative Approaches to DEM & Ortho Production

Moderator: Kerri Crowder, *University of Alaska-Fairbanks*
Room: 203 D

Automated Pattern Recognition of Vector Breeding Areas using Multispectral Imagery
Douglas Olcott, *ISD – GIS*

Imagery Data Management Strategies using Cloud Services
Steven Lambert, *ESRI*

High Performance Computing for Ortho and Mosaic Processes
David Piekny, *PCI Geomatics*

Precise DSM Generation using the GPU
Philippe Simard, *SimActive Inc.*

-7-

Special Session — Natural/Human Responses of Global Climate Change I

Moderator: Cuizhen Wang, *University of Missouri*
Room: 203 C

The Response of Lake Variations to Climate Change in Tibetan Plateau in Last 40 Years
Jingjuan Liao, *Chinese Academy of Sciences*, China
Guozhuang Shen and Huadong Guo

The Effects of Climate Change on Water Level Variations in Tibetan Lakes
Feifei Pan, *University of North Texas*
Yingkui Li and Jingjuan Liao

Estimating Glacier Volume Loss using IKONOS Images and ASTER GDEM Data: A Case Study of Gangotri Glacier in the Himalayas
Pinliang Dong, *University of North Texas*

Surface Area Fluctuations of Major Lakes in Central and Northern Tibetan Plateau from 1972 to 2010 Investigated using Landsat Images
Yingkui Li, *University of Tennessee*
Zewen Liu, Chunhao Zhu, and Jingjuan Liao

-8-

NGA Special Session IA – Open Source Motion Imagery

Moderator: Dr. Young Suk Sull, *NGA*
Room: 202 C

Automated Video Analysis Using Low-Level Motion Tracks
Anil M. Cheriyadat, *ORNL*

A Video Positioning System: Matching Handheld Videos to Google Earth Images
Tony X. Han, *University of Missouri*

Video Synopsis of Persistent Aerial Video
Ryan Desmond, *ITT Geospatial Systems*
Shiloh Dockstader

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Poster Presentation I

9:30 AM to 11:00 AM
Moderator: Mary Balogh, *U.S. Fish & WIldlife Service*
Room: 203 A

NEW for 2011 - Oral Poster Presentation Sessions! In addition to the technical paper presentations, on Tuesday, May 3rd, Poster Presenters will also be discussing their information. Take this opportunity to hear directly from the Poster Presenters in a classroom environment. Hear about the research, development and hard work that each person has done in order to present this year. Poster Presentations are designed to showcase a variety of remote sensing and geospatial applications from around the world. Posters will also be on display from Tuesday, May 3rd at 8:00 AM until Thursday, May 5th at 11:00 AM. Don't miss this wonderful opportunity.

Latest Rover Localization and Topographic Mapping Results for MER 2003 Mission
Xuelian Meng, *The Ohio State University*
Onur Karahayit, Rongxing Li, Wei Wang, Xuelian Meng, Larry Matthies, Raymond Arvidson, Steve Squyres, and the MER Science Team

A Comparative Study of a Proposed Semi-automated Methodology and Community Remote Sensing of the 2010 Haiti Earthquake Damage
Christopher Clasen, *University College London*, England
Tiziana Rossetto and Beverley Adams

Spectral Identification of Wild Rice (*Zizania palustris L.*) using Local Indigenous Knowledge and Satellite Multispectral Imagery
Michael Price, *College of Forestry and Conservation*

Identifying Trees in an Urban Landscape using Small-footprint Discrete-return Imaging Lidar
Randolph H. Wynne, *Virginia Tech*
Rupesh Shrestha

Developing a Suitable Classification Scheme for Plant Communities in Groundwater-dependent Ecosystems, Ashley National Forest, Uinta Mountains, Utah
Michael Hernandez, *Weber State University*
James Arnold, Sonya Welsh, Lee Bartholomew, Richard Ford, Marek Matyjasik, and Darlene Koerner

Multi-temporal Land Cover Classification of the Konya Basin, South-central Turkey, Based on a LANDSAT TM-derived NDVI/ NDMI Time Series
Marc Mayes, *Center for Sustainability and the Global Environment (SAGE), University of Wisconsin-Madison*
Mutlu Ozdogan and Erika Marin-Spiotta

Assessment of Spatial Metrics to Determine Rangeland Degradation
Chandra Holifield Collins, *USDA-ARS*
Rae-Landa Gomez-Pond, Riaz Hedayati, Mark Kautz, and Jeffery Stone

Identification and Mapping Wetland and Riparian Vegetation: Test of Hyperspectral Remote Sensing in Fennessey Ranch, Texas
Tarlan Razzaghi, *University of Nebraska - Lincoln*
Donald Rundquist

Development of a Graphical User Interface for Streambank Delineation using High Resolution Aerial Imagery
Naresh Pai, *University of Arkansas*
Dharmendra Saraswat

Positioning for Next Generation Intelligent Transport Systems Services in SafeTRIP
Arpad Barsi, *BME*
Tamas Lovas, Artur Wieczynski, Maria Baczynska, Arkadiusz Perski, Imre Kertesz, Ashweeni Beeharee, and Attila Berenyi

A Test Result on Positional Accuracy of Kompsat-2 Pan Imagery
Jaehong Oh, *The Ohio State University*
Changno Lee

Exhibit Hall Opens

10:00 AM to 7:00 PM, Exhibit Hall 301 C

Beverage Break

11:00 AM to 11:15 AM, Exhibit Hall 301 C
Sponsored by Aero-Metric, Inc.

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Hot Topics

11:15 AM to 12:15 PM

These one-hour HOT TOPIC discussion groups, hosted by ASPRS Divisions and Committees, are a high point of every conference. This is an opportunity for all attendees to weigh in with their thoughts on the issues being discussed.

Mobile Mapping Committee
Sponsored by PAD
Room: 201 A

This subcommittee of the Photogrammetric Applications Division (PAD) focuses on Mobile Mapping Systems technology and applications. A Mobile Mapping System (MMS) is an integrated system of sensors (e.g. laser scanners, digital cameras, position/orientation resolvers, pavement sensors, ground penetrating radar and so forth) that collect multi-sensor data while the platform (land or water vehicle) is in motion. If you're interested in this topic, come and give your input regarding the application of this growing technology.

Going to the "Mat" over Metadata. FGDC and NAP Metadata Standards, when are they too much or too little?
Sponsored by GISD
Room: 201 B

Writing Metadata is one of the most hated tasks in the geospatial community. Why is it necessary and how much is needed? What format is correct and who says which format is the "standard" for everyone? Bring your thoughts and opinions and come and discuss metadata. It should be a very lively "hot topic".

"3D GIS and the Topology of Time: Sharing Thoughts"
Room: 202 A

3D graphics used in entertainment, architecture, engineering, and molecular biology continues to improve. Visualizing geospatial information with those techniques has similarly advanced our human understanding of all aspects of geography, whether at the city planning or the earth observing levels. Beyond visualization, however, a robust 3D GIS approach, which incorporates both spatial and temporal topology, could enable more reliable, complete, and timely computer-aided analysis in spatial decision-making. Join us to discuss status of any work underway in this promising arena.

Breaking the 85% Barrier
Sponsored by RSAD
Room: 202 B

Despite roughly 35 years of new classification algorithms and improved approaches, it is rare to find statistically valid land cover classification studies with peer-reviewed accuracy estimates that exceed 85%. Join us to discuss the reasons we cannot consistently break the "85% barrier" and discuss potential ways we might do so in the future."

The Future of Sensor Calibration and Quality Assurance
Sponsored by the USGS Remote Sensing Technolgies Project
Room: 202 D

Come and discuss these important questions: Can I still calibrate my film camera? What are the calibration requirements for digital sensors? Are there standard processes for digital imagery evaluation? How can I test and evaluate my sensor? What about elevation data quality?

-11-

NGA Special Session IA — Open Source Motion Imagery

Moderator: Dr. Young Suk Sull, *NGA*, and Dr. Marc Boysworth, *NGA*
11:15 AM to 12:15 PM, Room: 202 C

Open Discussion on this topic from the previous session.

22nd Annual Awards Luncheon & 77th Installation of ASPRS Officers

12:15 PM to 1:30 PM, Ballroom 104 D

Plan to join your colleagues at this year's luncheon to honor current award recipients and participate in the installation of the 77th slate of ASPRS Officers.

The award winners will be given special honor and the annual business meeting of the Society will include installation of the new ASPRS Officers. Carolyn Merry, retiring ASPRS President, will give a summation of the past year's events.

Tickets for this Luncheon are required and are separate from the conference registration. Tickets may be purchased from the Conference Registration Desk, no later than 2:00 PM, Monday, May 2nd.

On site ticket purchases are limited to availability. Limited seating in the rear of the room is available at no cost for conference registrants wishing to attend the ceremonies only.

Technical Sessions

1:30 PM to 3:00 PM

-12-

NGA Special Session IIA - Geospatial Visual Analytics

Moderator: Dr. Ashley Holt, *NGA* and Dr. Beth Sweet, *NGA*
Room: 202 C

Exploring the Human Dimension of Geospatial Intelligence and Terrorism with Geography and Geographic Information Science (GISc)
Richard M. Medina, *ORNL*
George F. Hepner, *University of Utah*

GeoSketch
Tracey Hammond, *Texas A&M University*
Danielle Cummings

Integrated Benthic Habitat Mapping of Buck Island Reef National Monument
Sam Tormey, *NOAA*

Bridging the Semantic Gap Using Evolutionary Computation
Henrique Momm, *University of Mississippi*
Greg Easson

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Special Session – Oil Impact Assessment using Remote Sensing

Moderator: Bruce Davis, *Department of Homeland Security*
Room: 201 B

The Deepwater Horizon oil spill affected a wide range of habitat including open ocean, estuarine areas, beaches, and wetlands. During the response to map and quantify the extent of oil impact a variety of sensor systems were used to investigate these phenomena. This special session will have presentations from teams that acquired data using the ASPECT Thermal Line Scanner, the NASA AVIRIS Imaging Spectrometer, and the NASA UAVSAR L Band Synthetic Aperture RADAR instrument. These presentations will focus on distinct advantages offered by the particular sensor, the mission operation, use by response agencies, and results of data analysis to date.

Surface Oil Detection Using Multiple Wavelengths in the Long Wave Infrared Spectral Region
Robert Kroutil, *EPA ASPECT Program*

High Resolution Imaging for Oil Impact Assessment: The NASA UAVSAR Gulf Oil Spill Campaign
Cathleen Jones, *NASA Jet Propulsion Laboratory*

The Application of Imaging Spectroscopy in Response to the Gulf Oil Spill: Results from the NASA AVIRIS Sensor Team
Susan Ustin, *University of California Davis Center for Spatial Technologies and Remote Sensing*

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Topics in Digital Photogrammetric Technologies

Moderator: Sally Gehr, *Aero-Metric*
Room: 202 E

3D Images and Their Applications
Zheng Wang, *Global Geospatial Technologies, LLC*

Wide Coverage in High Resolution - Considerations, Applications and Case Studies
Erez Shor, *VisionMap*

Digital Photogrammetry Grid — DPGrid and its Application
Jianqing Zhang, *Wuhan University*, China
Zuxun Zhang, Yongjun Zhang, Yansong Duan, and Tao Ke

Reliable 3D Topographic Mapping using Unmanned Ariel Vehicle (UAV) Systems
Ahmed Elaksher, *St. Cloud State University*
Chunsun Zhang

-15-

Lidar Data Specifications and Product Characterizations

Moderator: Barry Budzowski, *Wilson & Company*
Room: 202 B

The Role of Surface Complexity in Airborne Lidar Product Error Characterization
Charles Toth, *The Ohio State University*

Lidar Density and Spacing Specification
Michael Naus, *Fugro Horizons Inc.*

Verification Technologies for Co-collected Lidar and Orthophoto Products
Charles O'Hara, *Spatial Information Solutions*
Karen Schuckman, Rodrigo Nobrega, Bijay Shrestha, Bobby Tuck, and Matt Doty

A Comparison of Laser Scanners for Mobile Mapping Applications
Craig Glennie, *The University of Houston*
Jerry Dueitt

-16-

Satellite Data Collection and Calibration

Moderator: Chris Gross, *Continental Mapping Consultants*
Room: 202 D

The Monoscopic and Stereo Geolocation Accuracy of the DigitalGlobe Satellite Constellation
Byron Smiley, *DigitalGlobe*

Radiometric Calibration of GeoEye-1
Phillip Downen, *GeoEye, Inc.*
Nancy Podger

Modeling the Optimal Remote Sensing Satellite Collection Opportunities for Large Disaster Areas
Shufan Liu, *University of South Carolina*
Michael E. Hodgson

An Accuracy Study on Airborne Lidar for DoT Aapplications
John Schmitt, *BAE Systems*
Ricardo Passini

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Advanced Remote Sensing Techniques and Analysis I

Moderator: Meghan MacLean, *University of New Hampshire*
Room: 203 D

An Assessment of Lidar Data for Enhancing Automated Land Cover Classifications using Aerial Photographs for Pool 5 of the Upper Mississippi River
Cynthia Berlin, *University of Wisconsin - La Crosse*
Jennifer Dieck

Application of Logistic Regression Modeling to Validate and Enhance Invasive Species Detection in Remote Sensing
Jason Tallant, *Eastern Michigan University*
William Welsh

NASA Ames Research Center Climate Change Effects and Adaptation Research: Hind- and Forecasting Flood Risk of NASA Ames Research Center using the Basins Model
Ariana Gonzales, *DEVELOP*

Object-based Land Cover Classification of Urban Areas using VHR Imagery and Photogrammetrically Derived DSM
Bahram Salehi, *University of New Brunswick*, Canada
Yun Zhang and Ming Zhong

-18-

Remote Sensing Applications for Ecosystem Characterization and Modeling

Moderator: Xiaoliang Meng, *Eastern Michigan University*
Room: 202 A

Urban Ecosystem Carbon Cycling: Quantifying Vegetation Biomass through Remote Sensing in the Denver Colorado Urban Area
Carol Mladinich, *U.S. Geological Survey*
Stacy Curry, Gergo Szanko, and Dean Anderson

Remote Sensing and Modeling for Monitoring, Reporting and Forecasting Ecological Conditions of Protected Lands Along the Appalachian Trail
Y.Q. Wang, *University of Rhode Island*
Rama Nemani, Fred Dieffenbach, Ken Stolte, Glenn Holcomb, Matt Robinson, Casey Reese, Marcia McNiff, Roland Duhaime, Hiro Hashimoto, Geri Tierney, Brian Mitchell, Pete August, Peter Paton, and Chuck LaBash

Determining Driving Factors of Grassland Degradation through Image Analysis — A Case Study in Xilin River Basin, Inner Mongolia
Xiaoliang Meng, *Eastern Michigan University*
Yichun Xie

Using Remote Sensing Techniques and GIS to Detect Changes in Turf and Tree Canopy in the Urban Area of Las Vegas Valley, Nevada
Judith Brandt, *Southern Nevada Water Authority*

-19-

Satellite Applications I

Moderator: David Johnson, *USDA/National Agricultural Statistics Service*
Room: 201 A

Feasibility of Spatial Resolution and Herbaceous Category Improvements to the Cropland Data Layer
David Johnson, *USDA/National Agricultural Statistics Service*

Techniques of Detecting and Delineating Archaeological Site Destruction using High Resolution Satellite Imagery: An Iraq Case Study
Benjamin Richason, III, *St. Cloud State University*

Creating and using Very High Density Point Clouds Derived from ADS Imagery
Stephan Gehrke, *North West Geomatics*

Investigating the Lake Patzcuaro Basin, Mexico, using ALOS PRISM and AVNIR
Stephen Leisz, *Colorado State University*

-20-

Special Session: Natural/Human Responses of Global Climate Change II

Moderator: Jingjuan Liao, *Chinese Academy of Sciences*, China
Room: 203 C

Relative Abundances of C3 and C4 Grasses in North American Great Plains: Their Responses to Climate Change
Cuizhen Wang, *University of Missouri*

Mapping Grasslands in the Great Plains and their Spatio-temporal Variations Responding to Climate Change
Qing Chang, *University of Missouri*

Comparison of the MODIS-derived Drought Indices for Drought Monitoring in Southwest and North China
Li Zhang, *Chinese Academy of Sciences*, China
Li-gai Bai and Qin Yan

Spatial and Temporal Dynamics of Inner Mongolian Grasslands from MODIS NDVI Time Series
Li Zhang, *Chinese Academy of Sciences*, China
Linlin Lu and Huadong Guo

MILWAUKEE

Milwaukee Art Museum: During your visit to Milwaukee be sure to squeeze in a visit to the Milwaukee Art Museum, Wisconsin's premier destination for art and culture. The Art Museum is an architectural landmark, comprised of three buildings designed by three legendary architects: Eero Saarinen, David Kahler and Santiago Calatrava.

The museum is open Tuesday thru Sunday 10 a.m. to 5 p.m. and Thursday until 8 p.m.. Admission is $12 for Adults, $10 for Students, Seniors and Active Military. A short cab ride to the Lake Michigan shoreline area will provide you with an architectural treat to remember. The museum is located one mile east of the Convention Center on the shore of Lake Michigan at 700 N. Art Museum Drive, Milwaukee, WI 53202. The phone number is (414) 224-3200.

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Poster Presentation II

1:30 PM to 3:00 PM
Moderator: Jie Shan, *Purdue University*
Room: 203 A

NEW for 2011 - Oral Poster Presentation Sessions! In addition to the technical paper presentations, on Tuesday, May 3rd, Poster Presenters will also be discussing their information. Take this opportunity to hear directly from the Poster Presenters in a classroom environment. Hear about the research, development and hard work that each person has done in order to present this year. Poster Presentations are designed to showcase a variety of remote sensing and geospatial applications from around the world. Posters will also be on display from Tuesday, May 3rd at 8:00 AM until Thursday, May 5th at 11:00 AM. Don't miss this wonderful opportunity.

Character Maps from Close Range Multispectral Images
Ming-Chih Hung, *Northwest Missouri State University*
Yi-Hwa Wu

Tsunami Risk Assessment using Geomatics in Fujairah, UAE
Khameis AlAbdouli, *Florida State University*

Evaluating the Restoring Conditions for Those Areas Visited with Natural Disasters Employing Landsat-7 ETM+ Thermal Infrared Data
Yishuo Huang, *Chaoyang University of Technology*, Taiwan
Chih-Peng Yu and Shang-Yuh Lin

Mapping Evapotranspiration for Water Administration in Idaho
William Kramber, *Idaho Department of Water Resources*
Anthony Morse and Richard Allen

Regional Differences of Post-Soviet Forest Disturbance in Temperate European Russia
Matthias Baumann, *University of Wisconsin-Madison*
Mutlu Ozdogan, Volker Radeloff, Tobias Kuemmerle, Kelly Wendland, and Elena Esipova

Bridging the Gap between NASA Hydrological Data and the Geospatial Community
Hualan Rui, *Goddard Earth Sciences Data and Information Services Center (DISC), NASA*
Bill Teng, David Mocko, Hiroko Beaudoing, Bruce Vollmer, Mark Gray, Joe Nigro, David Maidment, and Rick Hooper

Remote Sensing to Detect Expansion of Irrigation in Xinjiang, NW China
Yang Yang, *University of Wisconsin - Madison*
Mutlu Ozdogan

Automated Characterization of Urban Expansion in Complex Landscapes in China using Dense Temporal Stacks of Landsat Data
Zhiwei Ye, *University of Wisconsin-Madison*
Annemarie Schneider

Remote Sensing of Tillage Practices using Multi-temporal Landsat Imagery
Baojuan Zheng, *Virginia Tech*
James B. Campbell

Robust Direct Georeferencing to Support Geospatial-intelligence Analysis
Jaehong Oh, *The Ohio State University*
Charles Toth and Dorota Grejner-Brzezinska

Using Lidar to Show Changes in Coastal Geomorphology
William Robertson, *Florida International University*

Automating the Correction of USGS Digital Elevation Models using Fourier Analysis and the Mean Profile Filter
Yusuf Siddiqui, *I-Cubed*

Student & Young Professionals Events

Courtesy of the ASPRS Student Advisory Committee (SAC)

Just a reminder for you not to miss the Exhibit Hall Guided Tour from 2:30 pm to 3:30 pm as well as the Exhibitors' Reception from 5:30 pm to 7:00 pm where you can meet with the representatives from the most influential companies in the geospatial industry. We will let you refresh in your rooms until 7:30 pm when we will meet in the lobby again and try to find our way toward The Safe House. We will keep the mystery of this place here and encounter the adventure together. An intriguing place with great food and atmosphere should come as a reward for a busy day at the conference.

Exhibit Hall Guided Tour for Students

2:30 PM to 3:30 PM

The ASPRS Sustaining Members Council is hosting a guided tour of the exhibit hall for students. This is your opportunity to meet the exhibitors, up close and personal. Exhibit halls can be intimidating, but not after this personal tour. See you there.

Beverage Break

3:00 PM to 3:30 PM, Exhibit Hall 301 C
Sponsored by Aero-Metric, Inc.

Technical Sessions
3:30 PM to 5:00 PM

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NGA Special Session IIB - Geospatial Visual Analytics
Moderator: Dr. Ashley Holt, *NGA*
Room: 202 C

Open Discussion on this topic from the previous session.

-23-

PDAD Special Session I — Airborne Digital Mapping Camera Systems: Manufacturer's Perspective
Moderator: Brian Huberty*, USFWS and* Greg Stensaas*, U.S. Geological Survery*
Room: 203 C

This is a follow-on session to the traditional panel session hosted at ASPRS for many years. The session is design to show and discuss digital mapping camera manufacturers' technology from around the world. Each representative will give a short presentation followed by a question and answer session with the audience. The goal is to provide a dynamic forum to address current systems and future developments in this important and rapidly evolving mapping technology. System vendors will highlight their specific technologies in order to meet the demand for aerial digital mapping images for specific markets.

Panelists
Digital Camera Manufactures

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Integrated Spatial Sensors and Technologies I
Moderator: Eugene Levin, *Michigan Tech University*
Room: 203 B

Photogrammetric Small UAV in Geospatial Research and Education at Michigan Tech University
Eugene Levin, *Michigan Tech University*
Stephen Curelli

Sensing Position by Combining Photogrammetry and Optical Pattern Projection
Benrui Zheng, *University of North Carolina - Charlotte*
Brigid Mullany, Edward Morse, and Angela Davies

Conceptual Design of a Pedestrian Navigation System Supported by Star Tracking Techniques
Shaojun He, *The Ohio State University*
Rongxing Li and Alper Yilmaz

Advances in Thermal Remote Sensing Applications and Operation as a Photogrammetric Tool
Eatay Shechter, *Icaros, Inc.*

-25-

Remote Sensing Applications for Agriculture
Moderator: Claire Boryan, *USDA/National Agricultural Statistics Service*
Room: 202 E

Change in California's Central Valley Farmland Between 2007 and 2009
Audra Zakzeski, *USDA/National Agricultural Statistics Service*

Remote Sensing of Barley Crop Stressed with Carbon-dioxide and Herbicide
Sani Yahaya, *University of Nottingham, England*
M.D Steven and G.Foody

Update on 2010 Cropland Statistical Mapping Efforts
Rick Mueller, *USDA/National Agricultural Statistics Service*

Crop Identification Based on Crop Phenological Information
Claire Boryan, *USDA/National Agricultural Statistics Service*
Liping Di

MILWAUKEE

Discovery World — Milwaukee's largest museum dedicated to science, situated along the lake front. Experience the high-tech, hands-on exhibits, salt water and freshwater aquariums, as well as touch tanks and digital theaters. A double-helix staircase wraps around the 40-foot kinetic sculpture of a human genome. A wonderful day for kids and adults can be had at Discovery World. The museum is located one mile east for the Convention Center just south of the Art Museum on the shore of Lake Michigan. Just a short cab ride away.

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Assessing the Accuracies of Spatial Data

Moderator: Ron Schonegg, *Continental Mapping Consultants*
Room: 203 D

Ground Control 101
Brant Howard, *Compass Data Inc.*
Steven Hamilton

Locomotion Analysis and Estimation of Data Quality using Inertial Sensors for the Purpose of Vision-aided Inertial Navigation
Boris Skopljak, *The Ohio State University*
Alper Yilmaz and Rongxing Li

The Relative Geolocation Accuracy of WV02: On-orbit Calibration and Long Term Stability
Byron Smiley, *DigitalGlobe*

A Spatial Analysis of Rural Entrepreneurial Success
Steven Steinberg, *Humboldt State University*
Jason Barnes and Sheila Lakshmi Steinberg

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Advanced Remote Sensing Techniques and Analysis II

Moderator: Meghan MacLean, *University of New Hampshire*
Room: 202 D

Texture Region Extraction from Multispectral and Hyperspectral Images by Classifying Local Spectral Histograms
Jiangye Yuan, *The Ohio State University*
DeLiang Wang, Jung-Kuan Liu, Lin Yan, and Rongxing Li

Can Soil Respiration be Estimated using Remote Sensing?
Randolph H. Wynne, *Virginia Polytechnic Institute and State University*
Valquiria Quirino, John R. Seiler, and Valerie A.Thomas,

WorldView-2 Image Exploitation using ERDAS eATE and IMAGINE Objective
Brian Kloer, *ERDAS, Inc.*

Object-based Delineation of Urban Neighborhoods of Accra, Ghana from QuickBird Imagery
Douglas Stow, *San Diego State University*
Christopher Lippitt, Sory Toure, Lloyd Coulter, and John Weeks

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Remote Sensing Applications for Environmental Monitoring

Moderator: Colin Brooks, *Michigan Tech Research Institute*
Room: 202 B

Detecting Pine Fertilization Response from a Synthetic Landsat VI Chronosequence
Christine Blinn, *Virginia Tech*
Randolph Wynne, Thomas Fox, and Robert Sypert

Modeling Sediment Deposition for Predicting Marsh Habitat Development
Tyler Ketron, *DEVELOP*
Amber Kuss, Tyler Ketron, Alex Remar, and Vivek Choksi

Mapping and Monitoring the Extent of Cladophora Algae in the Great Lakes using Multi-resolution, Multi-temporal Satellite Imagery
Colin Brooks, *Michigan Tech Research Institute*
Robert Shuchman, Michael Sayers, Martin Auer, Guy Meadows, and Aaron Dayton

Seagrass Health Modeling and Prediction with NASA Science Data
Harold Robinson, *University of Mississippi*
Greg Easson, Marc Slattery, Daniel Anderson, Robert DeCurtins, Slawomir Blonski, and Lauren Underwood

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Innovative Methods of Geospatial Data Processing

Moderator: Barry Haack, *George Mason University*
Room: 202 A

The Modeling of Fire Regime Condition Class for Eastern Alaska
John Koltun, *Geographic Resource Solutions*

Remote Sensing-spatial Sciences for the Hindu Kush-Karakorum-Himalaya Mountain Complex Decision Support Toolbox
Barry Haack, *George Mason University*

Examining Spatial-temporal Effects of Urban Environmental Variables on the Dissemination of West Nile Virus: A Case Study of Los Angeles, California, USA
Hua Liu, *Old Dominion University*
Qihao Weng

Healthscapes: A New Web Platform for Global Environmental Health Research
Nicholas Preston, *University of Wisconsin – Madison*

-30-

Analysis of Lidar Waveforms

Moderator: James Young, *Aero-Metric, Inc.*
Room: 201 B

Classifying Compressed Lidar Waveform Data
Charles Toth, *The Ohio State University*
Dorota Brzezinska

Creating a More Accurate Pseudo-waveform: Integration of Spatially Coincident Airborne and Terrestrial Lidar Data
Ryan Sheridan, *Texas A&M*
Sorin Popescu, Demetrios Gatziolis, and Zhao Kaiguang

A Novel Decomposition Method Based on Evolution Algorithm for LVIS Waveform Data
Wei Zhuang, *SUNY ESF*
Giorgos Mountrakis

Combined Segmentation of Lidar Point Cloud and Registered Images
Xiangyun Hu, *Wuhan University*, China
Junfeng Zhu and Lizhi Ye

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Poster Presentation III

3:30 PM to 5:00 PM
Moderator: Mary Balogh, *U.S. Fish & WIldlife Service*
Room: 203 A

NEW for 2011 - Oral Poster Presentation Sessions! In addition to the technical paper presentations, on Tuesday, May 3rd, Poster Presenters will also be discussing their information. Take this opportunity to hear directly from the Poster Presenters in a classroom environment. Hear about the research, development and hard work that each person has done in order to present this year. Poster Presentations are designed to showcase a variety of remote sensing and geospatial applications from around the world. Posters will also be on display from Tuesday, May 3rd at 8:00 AM until Thursday, May 5th at 11:00 AM. Don't miss this wonderful opportunity.

Analysis of Temperatures Distribution of Forest Type Class using Landsat Imagery
Joon Kyu Park, *Seoil University*, South Korea
Hee CheonYun

On-orbit Geolocation Accuracy Performance of the GeoEye-1 High Resolution Imaging Satellite
David Mulawa, *GeoEye*
Aaron Cole

Object-based Classification of an Urban Area through a Combination of Aerial Image and Airborne Lidar Data
Yongminu Kim, *Seoul National University*
Youkyung Han, Younggi Byun, Jaewan Choi, Dongyeob Han, and Yongil Kim

Object-based Analysis and Change Detection of the Major Wetland Cover Types During the Low Water Period at Poyang Lake, PRC
Iryna Dronova, *University of California, Berkeley*
Peng Gong and Lin Wang

Land Cover Mapping in the Lower Columbia River Estuary
Tyler Bax, *The Sanborn Map Company*
Andrew Brenner and Russ Congalton

An Effective Realtime Updating of Road Facility DB using Digital Camera with a Built-in Bluetooth and DGPS
Joon Kyu Park, *Seoil University*, South Korea
Hee CheonYun and Min Gyu Kim

Analysis of Terminus and Elevation Changes for Six Glaciers in Northern Labrador, Canada using ASTER Imagery
Jeffrey VanLooy, *University of North Dakota*

Remote Sensing Assessment of Land Cover Change in the Mesilla Valley, New Mexico, 1985-2009
Kristen Hestir, *New Mexico State University*

Object-oriented Segmentation and Classification of High Resolution Imagery Evaluating Fire-carrying Fuel Variables of Pinyon-Juniper Woodlands in the Great Basin
April Hulet, *Brigham Young University*
Bruce Roundy, Steve Petersen, and Ryan Jensen

Wildfires in the Great Smoky Mountains National Park, 1980 - 2008
Jonnathan B. Owens, *AMEC Earth and Environmental*

Tornadoes: A Comprehensive Study
Ming Hung, *Missouri State University*

Using GIS to Model the Energetic Costs of Crossing Steep Slopes for Capuchinin Monkeys
Allison Howard Eury, *University of Georgia*

Exhibitors' Welcome Reception

5:30 PM to 7:00 PM, Exhibit Hall 301 C
Silver Sponsor — Northrup Grumman.Corp.

NORTHROP GRUMMAN

A wonderful occasion to visit with both national and international suppliers and an Annual ASPRS Conference tradition is the Exhibitors' Welcome Reception. Mingle with the Conference Exhibitors, our hosts for the evening, in a relaxed environment and take some time to form lasting professional relationships.

Light hors d'oeuvres and beverages will be served while you come together with old and new friends. Admission to this event is included with all conference registrations.

CONFIDENTIAL

Espionage for a Great Cause

7:00 PM

Safe House Nightclub, 779 North Front Street, Milwaukee

Following the Exhibitor's Reception on Tuesday May 3rd, join the Western Great Lakes Region at the Safe House Nightclub. A short six block walk from the Frontier Airlines Center, the Safe House is a spy-themed venue filled with secret walls, doors, passages, illusions, intrigue and adventure. Aside from the entertaining and amusing setting, there will be instructional blackjack for prizes and a raffle with all proceeds to go toward the **Western Great Lakes Region Student Fund**. Hope you can join us for a fun-filled evening of espionage for a great cause! For more information on the Safe House, visit www.safe-house.com.

Have Some Time to Get Away?

Take a short taxi ride to the American Geographical Society Map Library (AGS) located at the University of Wisconsin-Milwaukee. The AGS is home to one of the largest map collections in the world and presently consists of well over one million items; including maps, atlases, books, journals, pamphlets, photographs, slides, Landsat images, and digital spatial data. The scope of its collection is worldwide.

The AGS is located at 2311 East Hartford Avenue, on the third floor, east wing of the Golda Meir Library Building on the University of Wisconsin-Milwaukee campus. At approximately four miles from the Hyatt Regency Milwaukee, a short 15 minute taxi ride would put you at the front steps to this incredible archive.

The Library is open to the public Monday - Friday, 8:00 am to 4:30 pm, www4.uwm.edu/libraries/AGSL/.

The American Geographical Society Map Library is a fantastic resource and a must see for Imaging and Geospatial Professionals!