

## Workshop 7

### Professional Airborne Digital Mapping Systems — An Overview

Dave Fuhr, *Airborne Data Systems*

Brian Huberty, *U.S. Fish & Wildlife Service*

Monday, November 17, 8:00 am to 5:00 pm, CEU .8

Registration Fee: \$215 Member, \$315 Non-Member

#### INTRODUCTORY Workshop

The primary objective of this tutorial is to review professional airborne digital mapping camera systems. We will discuss all advantages and disadvantages of these new, dynamic systems - technical, costs, feasibility, calibration and applications. Participants will leave with a better understanding of what it takes to map their projects by either contracting or acquiring airborne digital mapping camera systems.

- I. Introduction
- II. Geospatial Information - What and Where is the Information You Need?
  - A. Physical resolution
  - B. Spectral resolution
  - C. Positional accuracy
- III. History
- IV. Mapping and Multi-spectral Airborne Cameras
- V. Platforms UAV to U2
- VI. Camera Basics
  - A. Array sensors-CCD,CMOS
  - B. Linear/pushbroom sensors
  - C. Scanning mirror
  - D. Lenses
  - E. Filters/bandwidth
  - F. Electronic shutters
- VII. Camera Systems Design
  - A. Processing and storage systems
  - B. Aircraft power supply
  - C. Navigation GPS/IMU
  - D. Real-time data links
- VIII. Applications
- IX. References
- X. Future

## ASPRS Division, Committee and Board of Directors Meetings

### Saturday, November 15

8:00 am to 5:00 pm

**Executive Committee**

### Sunday, November 16

9:00 am to 10:00 am

**Division Directors  
Committee Chairs**

10:00 am to 11:00 am

**Electronic Communications Committee**

10:00 am to 12 noon

**Geographic Information Systems Division**

11:00 am to 12 noon

**Sustaining Members Council  
Journal Policy and Publication Committees  
Data Preservation and Archiving Committee**

1:00 pm to 3:00 pm

**Photogrammetric Applications Division Lidar  
Subcommittee  
Convention Policy and Planning Committee  
Professional Practices Division**

3:00 pm to 5:00 pm

**Education and Professional Development Committee  
Primary Data Acquisition Division  
Remote Sensing Applications Division  
Student Advisory Council**

5:00 pm to 6:00 pm

**By-Laws Committee  
Division Directors**

### Monday, November 17

8:00 am to 5:00 pm

**Board of Directors**



November 16-20, 2008 - Denver, Colorado