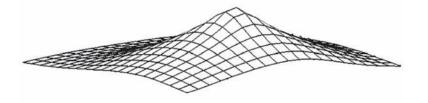
Resource 2007 asprs THE IMAGING & GEOSPATIAL INFORMATION SOCIETY



This Directory provides our membership, and the broader professional community, with a useful resource and an informative view of the leading companies and organizations in the remote sensing and mapping sciences. The Corporate Descriptions generally present an overview of the organization plus contact information. Due to the expanded capabilities on the ASPRS web site, we are no longer printing lists of Services, Products, Geographic, U.S. Vendors, and International Vendors in the *journal*.

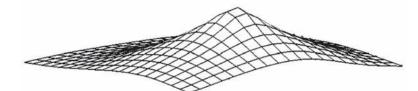
Note that all of the material included in this Directory, along with real-time search capability for locating sustaining members by geographic area, product and/or service is also available online at https://eserv.asprs.org. Just click on Sustaining Member under the Information Search section.

Corporate descriptions featured in the Resource 2007 Directory are provided by ASPRS Sustaining Members. We make every attempt to obtain updated information from our Sustaining Members. If you discover incorrect information anywhere in the Resource 2007 Directory, please let us know and we will correct it on the ASPRS web site.

If your organization would like to enjoy the benefits of being an ASPRS Sustaining Member, please go to http://www.asprs.org/membership/sustaining.html or contact our Membership Department for more information-5410 Grosvenor Lane, Suite 210, Bethesda, Maryland 20814; 301-493-0290, ext. 104/109; fax 301-493-0208; sokhanh@asprs.org or members@asprs.org; www.asprs.org.

Thank you,

James R. Plasker Executive Director





3001, Inc

Fairfax, Virginia www.3001inc.com *Member Since: 12/2004*

Aerial Cartographics of America, Inc. (ACA) Orland, Florida

www.aca-net.com; www.mv-usa.com Member Since: 10/1994

Aerial Data Service, Inc. Tulsa, Oklahoma www.aerialdata.com *Member Since: 8/1993*

Aerial Services, Inc. Cedar Falls, Iowa www.AerialServicesInc.com *Member Since: 5/2001*

AERO-METRIC, Inc. Sheboygan, Wisconsin www.aerometric.com *Member Since: 1/1974*

AeroTech Mapping Inc. Las Vegas, Nevada www.atmlv.com *Member Since: 8/2004*

AGFA Corporation Ridgefield Park, New Jersey www.agfa.com Member Since: 1/1990

Air Photographics, Inc. Martinsburg, West Virginia www.airphotographics.com *Member Since: 1/1973*

Airborne 1 Corporation El Segundo, California www.airborne1.com *Member Since: 7/2000*

Airborne Data Systems, Inc Wabasso, Minnesota www.airbornedatasystems.com Member Since: 1/2001

Analytical Spectral Devices Boulder, Colorado www.asdi.com *Member Since: 1/1998*

Applanix Corporation Ontario, Canada www.applanix.com Member Since: 7/1997

Applied ImagerySilver Spring, Maryland
www.appliedimagery.com *Member Since: 4/2005*

Axis GeoSpatial, LLC Easton, Maryland www.axisgeospatial.com Member Since: 1/2005

Ayres Associates, Inc. Madison, Wisconsin www.AyresAssociates.com Member Since: 1/1953

BAE SYSTEMS

Mount Laurel, New Jersey www.adr.na.baesystems.com *Member Since: 7/1995*

Bohannan Huston, Inc. Albuquerque, New Mexico www.bhinc.com *Member Since: 11/1992* **Booz Allen Hamilton**

Mc Lean, Virginia www.boozallen.com *Member Since: 10/2004*

Cardinal Systems, LLC Flagler Beach, Florida www.cardinalsystems.net Member Since: 1/2001

CH2M HILL Redding, California www.ch2m.com Member Since: 1/1974

The American Surveyor Magazine Frederick, Maryland www.TheAmericanSurveyor.com Member Since: 12/2004

Clark Labs / Clark University Worcester, Massachusetts www.clarklabs.org Member Since: 10/1997

COL-EAST, Inc. North Adams, Massachusetts www.coleast.com Member Since: 1/1976

CRC Press - Taylor & Francis Group Boca Raton, Florida www.crcpress.com *Member Since: 9/2006*

DAT/EM Systems International Anchorage, Alaska www.datem.com *Member Since: 1/1974*

DEFINIENSBoulder, Colorado
www.definiens.com *Member Since: 12/2005*

DeLorme Yarmouth, Maine www.delorme.com *Member Since: 11/2001*

Dewberry Fairfax, Virginia www.dewberry.com *Member Since: 1/1985*

Digital Aerial Solutions, LLC Tampa, Florida www.digitalaerial.com *Member Since 10/2006*

Digital Mapping, Inc. Huntington Beach, California www.admap.com Member Since: 4/2002

DigitalGlobe Longmont, Colorado www.digitalglobe.com *Member Since: 7/1996*

DIMAC SYSTEMS, LLC Longmont, Colorado www.dimacsystems.com Member Since: 1/2004

Dudley Thompson Mapping Corp. (DTM) Surrey, BC, Canada www.dtm-global.com *Member Since: 9/2006*

Dynamic AviationBridgewater, Virginia
www.dynamicaviation.com *Member Since: 4/2003*

E. Coyote Enterprises, Inc. Mineral Wells, Texas www.ecoyote.com Member Since: 1/1978

EADS Defence and Security Systems, SACedex, France
www.geomatics-eads.net *Member Since: 8/1994*

Eagle Mapping, Ltd British Columbia, Canada www.eaglemapping.com Member Since: 1/1999

EarthData Frederick, Maryland www.earthdata.com Member Since: 1/1994

Eastern TopographicsWolfeboro, New Hampshire www.e-topo.com *Member Since: 8/1995*

Eastman Kodak Company Rochester, New York www.kodak.com/go/aerial Member Since: 1/1936

ESRI Environmental Systems Research Institute, Inc. Redlands, California www.esri.com Member Since: 1/1987

EUROSENSE Wemmel, Belgium www.eurosense.com Member Since: 1/1982

Federal Geographic Data Committee Reston, Virginia www.fgdc.gov

Member Since: 1/1998 Furnas Centrais Eletricas S/A Botafogo, Brazil Member Since: 1/2007

GE Geospatial SolutionsMission, Missouri
www.gepower.com/geospatial
Member Since: 1/1976

GeoEye (was ORBIMAGE Inc.) Dulles, Virginia www.geoeye.com Member Since: 4/1995

Geographic Resource Solutions Arcata, California www.grsgis.com *Member Since 12/2006*

GeoCue Corporation (NIIRS10, Inc.) Madison, Alabama info@geocue.com Member Since: 10/2003

Geolas Consulting Poing, Germany www.geolas.com *Member Since: 1/2002*

GRW Aerial Surveys, Inc. Lexington, Kentucky www.grwinc.com *Member Since: 1/1985* Groupe ALTA

Sainte-Foy, QC Canada www.groupealta.com *Member Since: 7/1/2003*

HAS Images, Inc.Dayton, Ohio
www.hasimages.com *Member Since: 2/1998*

HJW GeoSpatial, Inc. Oakland, California www.hjw.com Member Since: 11/1992

Horizons, Inc.
Rapid City, South Dakota
www.horizonsinc.com
Member Since: 1/1974

INPHO GmbH Stuttgart, Germany www.inpho.de Member Since: 4/1994

Institute for the Application of Geospatial Technology (IAGT) Auburn, New York www.iagt.org Member Since: 3/2001

Institute for Advanced Education In Geospatial Sciences University, Mississippi www.geoworkforce.olemiss.edu Member Since: 4/2002

Intergraph Corporation (Z/I Imaging) Madison, Alabama www.intergraph.com Member Since: 1/1951

Intermap Technologies, Inc. Englewood, Colorado www.intermap.com Member Since: 1/1987

International Institute for Geo-Information Science and Earth Observation (ITC) Enschede, Netherlands

www.itc.nl Member Since: 1/1992

ITRES Research Limited Calgary,Canada www.itres.com Member Since: 1/2003

ITT (was RSI) Visual Information Solutions Boulder, Colorado www.ittvis.com Member Since: 1/1997

John Deere Agri Services (was GeoVantage, Inc.) Swampscott, Massachusetts www.JohnDeereAgriServices.com Member Since: 7/2002

Jolandco, Inc. Rocklin, California www.jolandco.com *Member Since: 2/2006*

Kenney Aerial Mapping Phoenix, Arizona www.kam-az.com Member Since: 1/2000

CS Sustaining Members

Keystone Aerial Surveys, Inc. Philadelphia, Pennsylvania www.keystoneaerialsurveys.com *Member Since: 1/1985*

KLT Associates, Inc. Peabody, Massachusetts www.kltassoc.com Member Since: 11/1993

Kucera InternationalWilloughby, Ohio
www.kucerainternational.com *Member Since: 1/1992*

L-3 Communications
Titan Group Enterprise Geospatial
Solutions
Portland, Oregon
www.L-3com.com
Member Since: 11/1999

L. Robert Kimball & Associates Ebensburg, Pennsylvania www.lrkimball.com Member Since: 1/1965

LaFave, White & McGivern, L.S., P.C.

Theresa, New York www.lwmlspc.com *Member Since: 1/1987*

Land Data Technologies Inc. Edmonton, Canada www.landdatatech.com Member Since: 1/1987

Leica Geosystems Norcross, Georgia www.leica-geosystems.com *Member Since: 1/1985*

LizardTech, Inc. Seattle, Washington www.lizardtech.com *Member Since: 10/1997*

Lockheed Martin Corporation Geospatial Intel Solutions Fairfax, Virginia www.lockheedmartin.com Member Since: 1/1995

LPA Systems, Inc.Fairport, New York
www.lpasystem.com *Member Since: 1/2005*

Martinez Corporation Eagan, Minnesota www.mtzcorp.com Member Since: 1/1979

MDA Geospatial Services, Inc. Richmond, Canada www.mdacorporation.ca Member Since: 1/1992

MDA Federal Inc. Rockville, Maryland www.mdafederal.com Member Since: 1/1983

Merrick & Company Aurora, Colorado www.merrick.com/gis Member Since: 4/1995

Michael Baker Jr., Inc. Beaver, Pennsylvania www.mbakercorp.com *Member Since: 1/1950* NavCom Technology, Inc. Torrance, California www.navcomtech.com Member Since: 3/2004

New Tech Services, Inc. Charlotte, North Carolina www.nts-info.com *Member since: 3/2006*

North West Group Calgary, Canada www.nwgeo.com Member Since: 1/1998

Northrop Grumman Chantilly, Virginia www.northropgrumman.com *Member Since: 1/1989*

NSTec, Remote Sensing Laboratory Las Vegas, Nevada www.bechtelnevada.com Member Since: 7/2005

Observera, Inc. Chantilly, Virginia www.observera.com *Member Since: 7/1995*

Optech Incorporated Toronto, Canada www.optech.ca *Member Since: 1/1999*

Optimal Geomatics Inc. Vancouver, BC, Canada www.optimalgeo.com *Member Since: 2/2006*

PAR Government Systems Corporation Rome, New York

www.pargovernment.com *Member Since: 5/1992*

PCI Geomatics Ontario, Canda www.pcigeomatics.com Member Since: 1/1989

Photo Science, Inc. Lexington, Kentucky www.photoscience.com Member Since: 7/1997

Pictometry International Corp. Rochester, New York www.pictometry.com *Member Since: 5/2003*

Pinnacle Mapping Technologies, Inc. Indianapolis, Indiana www.pinnaclemapping.com Member Since: 7/2002

POB Magazine Troy, Michigan www.pobonline.com Member since: 7/2006

Pixxures, Inc. 15000 W. 64th Avenue Arvada, CO www.pixxures.com Member Since: 8/2006

QCoherent Software LLCColorado Springs, Colorado
www.qcoherent.com *Member Since: 9/2006*

Radman Aerial Surveys Sacramento, California radaerial@aol.com Member Since: 1/1971

Reed Business-Geo (was GITC America, Inc. & GITC bv) Frederick, Maryland http://www.reedbusiness-geo.com Member Since: 1/1998

Riegl USA, Inc. Orlando, Florida www.rieglusa.com Member Since: 11/2004

Robinson Aerial Survey, Inc. (RAS) Hackettstown, New Jersey www.robinsonaerial.com Member Since: 1/1954

Rolta International, Inc. Alpharetta, Georgia www.rolta.com *Member Since: 3/2003*

Sanborn Colorado Springs, Colorado www.sanborn.com Member Since: 9/1984

Science Applications International Corporation Mc Lean, Virginia www.saic.com Member Since: 1/1987

The Sidwell Company St. Charles, Illinois www.sidwellco.com Member Since: 1/1973

Spatial Data Consultants, Inc. High Point, North Carolina www.spatialdc.com Member Since: 12/2004

Speck SpatialTech Limited Secunderabad, India www.speckspatialtech.com *Member Since: 3/2005*

Stewart Geo Technologies, Inc. Irvine, California www.stewartgeotech.com *Member Since: 1/1978*

Surdex Corporation Chesterfield, Missouri www.surdex.com *Member Since: 1/1979*

Surveying and Mapping (SAM), Inc. Austin, Texas www.saminc.biz Member Since: 12/2005

TerraSim, Inc.Pittsburgh, Pennsylvania www.terrasim.com *Member Since: 9/2003*

Terratec AS Lysaker, Norway www.terratec.no *Member Since: 9/2004*

Towill, Inc.
San Francisco, California
www.towill.com
Member Since: 1/1952

Tukaj Mapping Central Europe Krakow, Poland www.tmce.pl *Member Since: 7/2000*

U.S. Geological Survey Reston, Virginia www.usgs.gov *Member Since: 4/2002*

USDA/National Agricultural Statistics Service Fairfax, Virginia www.nass.usda.gov Member Since: 6/2004

Valtus Imagery Services Boulder, Colorado www.valtus.com Member since: 11/2006

Vexcel CorporationBoulder, Colorado
www.vexcel.com *Member since: 2/1998*

VXServices, LLC Longmont, Colorado www.vxservices.com Member Since: 6/2001

Watershed Concepts Charlotte, North Carolina www.watershedconcepts.com Member Since: 8/2003

Wehrli & Associates Inc. Valhalla, New York www.wehrliassoc.com Member since: 5/1994

Western Air Maps, Inc. Overland Park, Kansas www.westernair.com Member Since: 12/1999

Wilson & Company, Inc., Engineers & Architects Albuquerque, New Mexico www.wilsonco.com Member Since: 3/2007

Woolpert LLP Dayton, Ohio www.woolpert.com Member Since: 1/1985

XEOS Imaging Inc. Quebec, Canada www.xeosimaging.com Member Since: 11/2003



3001, Inc.

10300 Éaton Place, Suite 340 Fairfax, VA 22030 (703) 385-3001; (703) 934-3740 (fax) jgawlik@3001inc.com www.3001inc.com

COMPANY OVERVIEW

3001, Inc., the geospatial company, has been serving the geospatial industry since 1965.



Beginning as two surveyors in Sulphur, Louisiana 40 years ago, 3001 now has several offices throughout the United States. 3001 has been a pioneer in bringing cutting-edge geospatial technology to the commercial sector to provide clients with the most accurate and robust geospatial data available. 3001 offers a wide range of services, including:

- · Aerial Photography (Digital & Film-Based Imaging)
- · Remote Sensing (LiDAR, Multi- & Hyperspectral)
- · Land Use/Land Cover Classification & Analysis
- Aerotriangulation
- Scanning
- · Stereocompilation & Feature Extraction
- · Orthorectification
- · Orthophoto Production
- Mosaicking
- · Computer-Aided Design & Drafting (CADD)
- Photogrammetric Mapping (Planimetric/Topographic)
- Digital Elevation/Terrain Models (DEMs/DTMs)
- Navigation/Nautical Charts
- · Data Conversion/Translation
- · Relational Database/ Geodatabase Design
- · Systems Integration
- · GIS Implementation
- · GIS Application Development
- · Global Positioning Systems (GPS) & Airborne GPS
- · Conventional & Total Station Technology Surveying
- · Hydrographic & Topographic Surveys
- · Azimuth Surveys
- Ground Control Surveys
- · Single-Beam & Multi-Beam Bathymetric Surveys
- · Boundary Surveys
- · Overbank Surveys
- · Cross-Sections/Profiles

3001 is a national leader in high-resolution digital aerial photography, LiDAR, and remote sensing, and a regional leader in GIS and surveying. Always on the forefront of technology, 3001 helped develop the Leica ALS50 LiDAR system, and was the first company in North America to own the Z/I DMC. 3001 is the only company in North America to offer all-digital orthophotography using both the Leica ADS40 and the Z/I DMC digital sensors.

3001 provides their services to federal, state, regional, county, and city governments, and private companies, and their products and services are used for domestic and international civilian, defense, and intelligence initiatives.

UNITS:

- Civil Works: Remote Sensing, Photogrammetry, GIS, and Surveying
- · Intel Defense Solutions
- · Federal Services
- ·3001 LandAir

LOCATIONS:

- · Fairfax, VA
- ·Stennis Space Center, MS
- ·St. Louis, MO
- ·Sulphur, LA
- · Huntsville, AL
- ·Slidell, LA
- · Gainesville, FL
- · Mobile, AL
- · Peachtree City, GA

Aerial Cartographics of America, Inc.

1722 West Oak Ridge Road Orlando, FL 32809-3910 (407) 851-7880; (407) 855-8250 (fax) info@aca-net.com www.aca-net.com; www.mv-usa.com

Aerial Cartographics of America, Inc. (ACA) is a full service professional photogrammetric firm located in Orlando, Florida. ACA's reputation for quality products and service is known by clients



for over thirty-three years. A creative and experienced team of skilled technicians and six Licensed Professionals work close together with our clients resulting in innovative solutions that keeps ACA on the cutting edge of technology.

Aerial Photography: Our aircraft include a Cessna 208B Grand Caravan outfitted with duel sensor ports, a Cessna single-engine, and helicopter. ACA uses the Tracker flight management system with both traditional film and digital aerial camera systems.

LAMP: (low altitude mapping photography) As a leader of this service in the Southeastern U.S., our low-level flights by helicopter utilizing an RC-30 camera has produced vertical accuracy's of .02 feet.

LiDAR: (laser mapping) services are performed using an airborne laser system that allows us to create three-dimensional digital terrain models of the bare earth.

Hyperspectral imaging services using high-powered sensors and post-processing software to identify unique spectral features for agricultural applications such as diseased vegetation detection, chemical leaks, and water & soil quality.

Digital Mapping/Ortho Division: First order analytical plotters and softcopy workstations are used for all mapping products, DTM, DEM, Planimetric, Topographic, stockpiles and contouring. Analytical aerial triangulation is performed using JFK software, Rabits and Brats solutions. Products are commonly delivered in AutoCAD, Microstation, Arc/Info and many digital raster formats as well. Digital orthos are produced in black and white, color, and false color infrared.

CS Sustaining Members

MultiVision: ACA is presently the US provider of MultiVision Oblique Imagery System for all Property Appraisers, Emergency Management, E-911, Law Enforcement, and Homeland Security. MultiVision integrates vertical and oblique aerial photos into single image files, enabling users to rapidly navigate, measure structures, and other elements, import GIS layers, and export oblique images into any GIS program.

GIS Services: We offer Consulting, analysis, and the design of Geographic Databases. E-911, Forestry, and Environmental databases are our specialty. ACA offers a complete turnkey approach and solution for all of your GIS product requirements.

Photographic Lab: Our full service color and black and white lab offers custom aerial film processing, electronically dodged contacts, and digital scanning. We specialize in large scale digital mosaicking produced from hundreds of multiple frames. From your aerial imagery or ours, we provide accurate, color corrected, final products available digitally or as hardcopy products.

Aerial Data Service, Inc.

8301 East 51st Street, Suite 100 Tulsa, OK 74145 Tel: (918) 622-4144; (918) 622-4119 (fax) services@aerialdata.com; www.aerialdata.com

Aerial Data Service is the largest full-service photogrammetric firm in the State of Oklahoma. With offices in Tulsa, Oklahoma, and Austin, Texas, ADS provides



aerial photography and photogrammetric mapping services to hundreds of engineering firms and governmental agencies across the country.

ADS is dedicated to providing quality work and using the most sophisticated technology available in the industry. Established in 1964, ADS became incorporated in 1973 and a 100-percent woman-owned firm in 1984. ADS currently employs a staff of 31, including three American Society of Photogrammetry and Remote Sensing (ASPRS) Certified Photogrammetrists, two American Society of Photogrammetry and Remote Sensing (ASPRS) Certified Technologists, one Geographical Information System Professional (GISP), one Registered Land Surveyor and two ATP Rated Professional Pilots, who together comprise over 100 years of cumulative experience.

Our Austin office was established in July 1998 and its work efforts have been successfully dedicated to Texas projects ever since. It has a staff of five full-time employees with four Zeiss analytical photogrammetric workstations and one softcopy photogrammetric workstation.

For flight operations, ADS owns a Piper Chieftain aircraft and a Cessna 310Q aircraft, both equipped with a Zeiss RMK TOP 15 precision aerial mapping camera, gyro-stabilized camera mount and Trimble GPS receiver. This system allows ADS to perform airborne GPS surveys, which calculate coordinate values of the projection center of the camera, greatly reducing the ground control needed

for mapping projects. Our Applanix inertial position and orientation system uses inertial navigation techniques to calculate the orientation (omega phi kappa) of the aerial mapping camera at the instant of exposure. The inertial information, combined with the camera location (XYZ) determined by our airborne GPS technology, provides information that assists in the analytical aerotriangulation process.

During photo missions, our pilot interacts regularly with our base of operations via e-mail, using the world's first Low Earth Orbit (LEO) satellite system created for in-flight use by EchoFlight and ORBCOMM.

ADS's on-site black-and-white photo lab is fully equipped with Eastman Kodak and Versamat processors, contact printers, and an HE-12 enlarger and copy camera.

ADS has fully analytical aerotriangulation capabilities. Our topographic labs are fully digital. We have twelve Zeiss Planicomp P-series first order analytical stereoplotters with digital superimposition and eleven Z/I, KLT and Supresoft softcopy photogrammetric workstations. Digital orthophoto rectification is performed using Z/I Imaging and KLT Atlas softcopy workstations. ADS has a Z/I Imaging PhotoScan 2000 calibrated photogrammetric scanner for precision scanning.

ADS provides ground based laser scanning for 3-D modeling and as-built mapping. Ground based laser technology provides an innovative and cost-effective alternative for as-built modeling of structures and terrain surfaces. The laser system virtually covers the subject area with laser pulses, a point cloud of data. The model data are processed on softcopy workstations that facilitate the digitizing of structures and surfaces.

We have the capability to deliver projects in whatever format required, including, but not limited to, Intergraph®, MicroStation®, $ArcInfo^{TM}$ and AutoCAD®.

No matter what the photogrammetric requirement, you can count on ADS to meet it. Our diverse resources, experienced personnel and customer-service orientation ensure that your project will be completed on time, to specification and within budget.

Aerial Services, Inc.

2120 Center Street Cedar Falls, IA 50613 (319) 277-0436; (877) ASI-4GIS, (319) 277-0437 (fax) info@AerialServicesInc.com www.AerialServicesInc.com

Aerial Services, Inc. is a full-service geospatial firm that has been supplying quality aerial photography and geospatial products to our clients since 1967. Our office is in Cedar Falls, Iowa, and is centrally located to serve our national client base.



Conventional Aerial Photography – Remote sensed data is acquired using four twin engine aircraft. Each is equipped with a forward motion compensator, gyro-stabilized mount, computer-controlled navigation systems and Jena LMK camera systems. LIDAR acquisition and processing is provided.



Digital Aerial Photography- Using the newly acquired Dimac digital camera, ASI is now offering state of the art photogrammetry.

Analytical Aerotriangulation – Full digital aerotriangulation services are provided to our clients' and on a contract basis as needed.

3D Digital Mapping –Whether clients need volumes, topographic, planimetric or digital terrain models, ASI provides mapping in industry standard formats using softcopy and analytical workstations.

Film Scanning – Our aerial film scanners are located in an environment-controlled area that ensures the highest quality digital images using the best available photogrammetric scanners.

Digital Orthophotography – Georeferenced digital orthos are the foundation layer for a quality basemap and GIS. Our mapping experts use advanced softcopy technology to make orthos to the most demanding positional accuracy specifications.

GIS Services – ASI's four decades of expertise as a geospatial data provider is leveraged to provide our clients with full GIS services as an ESRI Business Partner. Using our clients' existing data or accurately compiling new geospatial data from a variety of sources into an efficient, friendly geodatabase, ASI is equipped with GIS professionals and programmers to help our clients realize a high ROI.

AERO-METRIC, INC.

4020 Technology Parkway Sheboygan, WI 53083 (920) 457-3631, (920) 457-0410 (fax) ame@aerometric.com www.aerometric.com

AERO-METRIC, INC. offers timely and reliable geospatial services

through major offices in Sheboygan, WI (HQ); Anchorage, AK; Seattle, WA; Dulles, VA; Minneapolis, MN; and Fort Collins, CO, with a survey office in Chilton, WI. Our professional and technical roster of more than 280 skilled staff includes 28 ASPRS Certified Photogrammetrists and one ASPRS Certified Mapping Scientist - GIS/LIS. Our staff holds professional engineering registration in five states and survey/photogrammetric registration in seven states.

Professional geospatial services and resources include:

- Aircraft: Aero Commander 690 and King Air E90 turbine aircraft plus six reciprocating aircraft.
- Imagery: two Z/I DMC digital cameras and 13 Zeiss film cameras, with airborne GPS and IMU capabilities.
- LIDAR: Optech ALTM 3100EA with GeoCUE and Terrasolid post-processing software systems.
- Mapping: Digital extraction of planimetry and elevation data using softcopy and analytical systems.
- Orthophotos: Automated procedures merging digital imagery with elevation models.
- ${}^{\raisebox{3.5pt}{\text{\circle*{1.5}}}}$ Digital GIS mapping with database creation and population.
- · Aerial and ground control surveys using GPS technologies.
- Remote sensing including multispectral, thermal, IFSAR and satellite imagery.
- Total Quality Management program and procedures to ensure QA/QC of deliverables.

We are confident that our products and services will increasingly improve the quality of life in our world. Timely and reliable acquisition, processing and dissemination of geographic information will help solve problems associated with population growth, pollution, mineral and land resources, and energy.

AeroTech Mapping Inc.

2580 Montessouri Street, #104 Las Vegas, NV 89117 (702) 228-6277; (702) 228-6753 (fax) leotorrest@atmlv.com www.atmlv.com (no profile submitted)

AGFA Corporation

100 Challenger Road Ridgefield Park, NJ 07660-2105 (201) 440-2500; (201) 440-6794 (fax) john.brandes@agfa.com www.agfa.com

AGFA Corporation, Specialty Products Business Group, offers a complete assortment of Aerial





Black and White and Color Films, Papers, Aerial Copy Films, Cartographic Reproduction Films, and Chemistry. The unique characteristics of AGFA's Aerial films provides optimum results with a variety of ground conditions. AGFA's Aerial film assortment can provide superior results at all altitudes.

Air Photographics, Inc.

2115 Kelly Island Road Martinsburg, WV 25401-9472 (800) 624-8993; (304) 267-0918 (fax) info@airphotographics.com www.airphotographics.com

Air Photographics, Inc. (API), founded in August 1960, is a service-oriented



aerial photography firm that specializes in precision aerial photography used for mapping purposes.

Equipment & Services

- · Seven Twin-Engine GPS-Equipped Aircraft
- One Single-Engine GPS-Equipped Aircraft
- · Airborne GPS
- · Airborne IMU Data Collection & Processing Services
- ·Leica RC-20 & RC-30 Cameras with FMC
- ·Stabilized Camera Mounts
- •Focal Lengths 3.5", 6", 12"
- Digital Aerial Photography
- · Leica/Helava DSW500 and Wehrli RM-5 Photogrammetric Scanners
- Full Service Custom Photo Lab

Air Photographics, Inc. (API) range of operations is primarily in the states east of the Mississippi River. We welcome the opportunity to fly photo missions throughout the continental United States.

API customers are predominantly mapping firms that use our services rather than maintain their own costly flight department, or call on us to supplement their own aerial photo capability.

CS Sustaining Members

Our aircraft are hangared at the Eastern West Virginia Regional Airport, an all-weather Air National Guard facility. Our 11,000 square foot flight office and photo lab are situated adjacent to the hangars, assuring fast turn-around for film processing and editing after completion of photo missions.

Leica, Inc. is our principal source for aerial cameras. We have 5 aerial mapping cameras, three RC-30's and two RC-20 drives equipped with new 6" 'S' series lenses. We have one 12" lens and one 3.5" lens.

Flight line navigation and photo centering is achieved using a GPS flight management system.

We provide Airborne GPS data collection and post processing services. Our GPS receivers (both in our aircraft and in the ground station) are Novatel dual frequency.

We also offer airborne IMU (Inertial Measurement Unit) data collection and processing services, using the Applanix POS/DG and POS/AV systems. Use of this service reduces the number of required ground control points, as well as aerial triangulation time, by providing omega, phi & kappa in the post-processed file.

Air Photographics, Inc. obtains imagery in a variety of media. Film types include black & white, color negative, color positive, false color infrared, and black & white infrared. We also provide hand-held 12.8 mega pixel digital aerial photography.

The API aerial photo library is both current and historical, with some coverage dating back to 1948. Our custom photo lab produces prints, enlargements, film diapositives, mylars, blackline prints. We offer precision photogrammetric scanning for softcopy and digital orthophoto applications.

Custom digital prints, available in color or black and white, are available up to 44° x 80° . We use archival inks on premium archival acid-free photo paper. Prints can be cropped to your specifications, color balanced, and retouched/restored.

API employees are participants in an Employee Stock Ownership Program (ESOP) and have an average tenure of more than ten years. Several employees have served API for nearly thirty years.

Our success is attributed to our commitment to maintaining the highest standards of quality and service, using the best equipment available and a staff of experienced and dedicated employees.

Airborne 1 Corporation

300 N. Sepulveda Blvd. Suite 1060 El Segundo, CA 90245 (310) 414-7400; (310) 414-7409 (fax) info@airborne1.com www.airborne1.com

Airborne 1 Corporation (www. airborne1.com) provides advanced LiDAR technology and asset management for partners in the photogrammetry, surveying



and mapping fields. From Turnkey Services, to Software/Training, Rentals, Fractional Ownership Plans, and Franchising Opportunities, Airborne 1 enables professionals worldwide to effectively enter the LiDAR market without having to incur the high costs of owning a

sensor. Airborne 1's digital mapping services and solutions include state-of-the-art Optech ALTM sensors, LiDAR data processing analysis and application development, as well as LiDAR field survey coordination and project management.

Airborne 1's dedicated team consists of the industry's finest LiDAR specialists, with expertise on projects ranging from just tens of acres to thousands of square miles. Our highly qualified staff includes professionals in the disciplines of engineering, geography, surveying, earth science, design, data analysis, and business management. As such, we are uniquely equipped to offer customized mapping solutions for engineering firms in a variety of industries including land development, mining, power and utility, and landfill, as well as many federal, county, and local government agencies.

Airborne 1 is committed to providing cutting edge, innovative solutions for our worldwide partners and clients in the LiDAR industry, and is proud to be the leading LiDAR provider to U.S. photogrammetry, surveying, and mapping firms.

Airborne Data Systems, Inc

500 Airport Drive Redwood Falls, MN 56283 (507) 644-5419; (507) 644-2232 (fax) dfuhr@airbornedatasystems.com www.airbornedatasystems.com

Airborne Data Systems Inc. manufactures, airborne, digital, multispectral, and mapping systems.



Airborne Data Systems Inc. Spectra-View® camera systems incorporate the latest in technology to provide complete airborne digital imaging systems.

Spectra-View® 8W incorporates a proprietary DGPS/INS, electronic shuttered cameras, in-flight guidance, and electronic camera management systems to deliver a completely integrated system. Weighing less than 70 pounds, and using aircraft DC power, this system can be flown by a wide range of aircraft.

Spectra-View® 8W is a 66 mega-pixel system with an 8000 pixel wide footprint. Resolution ranges from 2 inch to 2 meters. With cycle time of 2.5 frames per second it is the fasted system in the industry. Typical 6 inch resolution with 60% forward-lap can be flown at 200 mph.

Airborne Data Systems, BandMatch® processing software completes the system. Providing processing capabilities to deliver ortho-rectified images in less than 20 seconds per scene. Accuracy is provided through calibrated DGPS/INS, radio-metric camera calibration, and calibrated optics. Typical accuracy in REAL TIME is better than two meters. Centimeter accuracies can be attained by using existing photogrammitry software and ground control, all scenes are saved with complete header information.

Airborne Data Systems Inc. Spectra-View® camera systems can be configured with up to eight different sensors giving a spectral capability from 400 nanometers to 14 microns. When a hyperspectral detector is used, geo-referenced imaging with up to 50 bands is delivered.



Analytical Spectral Devices

5335 Sterling Drive; Suite A Boulder, CO 80301-2344 303-444-6522; (303) 444-6825 (fax) info@asdi.com www.asdi.com

Based in Boulder, Colorado, with customers world-wide, ASD provides the most reliable, highperformance analytical instrumentation solutions to remote sensing



Precision Solutions From Light

scientists, analytical researchers and industrial professionals. In collaboration with our customers since 1990, our applications support team remains unsurpassed in solving some of the world's most challenging materials measurement problems.

With an ever-expanding line of distinctly compact, portable and transportable, precision spectroscopic instrumentation, and on-line spectroscopic solutions, ASD has continued to raise the standards in NIR analysis. Today, ASD remains the only manufacturer of truly field-portable, full-range laboratory quality, Vis/NIR spectrometers, spectroradiometers, spectrophotometers, corresponding software, and accessories to adapt to multiple application requirements. Available in many models, all ASD instruments share the same basic modular Goetz Spectroscopy Engine, ensuring compact, powerful, durable precision instruments throughout the product line.

The ASD FieldSpec® 3 is the new benchmark in field spectroscopy, improving upon the FieldSpec® Pro's staunch performance with wireless connectivity, seamless LabVIEW® interface, expanded flexibility, and improved built-in diagnostics. FieldSpec® 3 is ideal for a variety of applications, from remote sensing and precision agriculture to oceanography and environmental assessment. FieldSpec® HandHeld and HandHeld Pro are the ultra-compact, portable and extremely affordable spectroradiometers with applications similar to the FieldSpec® Pro, measuring radiance, irradiance, CIE color, color temperature, luminance, illuminance, reflectance and transmittance.

For current FieldSpec® Pro parallel port system users the new compact Smart Ethernet Adapter (SEA), designed with a specialized high-performance internal microprocessor adds a whole new set of capabilities previously unavailable. The addition of the SEA easily enables RJ45/ethernet connectivity, thereby freeing the user to upgrade instrument controllers without the hassle of parallel port issues, and utilize the latest software from ASD including the seamless interface with LabVIEW® software for autonomous control of the spectrometer system.

Applanix Corporation

85 Leek Crescent Richmond Hill, ON L4B 3B3 CANADA (905) 709-4600 x274; (905) 709-6027 (fax) info@applanix.com www.applanix.com

Applanix, a wholly owned subsidiary of Trimble, develops, manufactures, sells and supports precision products



that accurately and robustly measure the position and orientation of vehicles operating in dynamic environments. Applanix' Position and Orientation Systems (POS) are used in a variety of applications including road profiling, GIS data acquisition, aerial survey and mapping, railroad track maintenance and seafloor mapping. Established in 1991, Applanix strives to support customers around the world with exceptional service, anywhere at anytime.

Markets Served:

Applanix products are providing customers in a number of industries with exceptional value, and new applications continue to be discovered! Currently, Applanix products are used to increase the quality and throughput of aerial surveys, help railroads maintain their track, compensate for ship motion when mapping ocean floor and monitor the condition of the world's highways and roads. New markets just beginning to explore the potential of Applanix's technology include the land seismic and offshore industries.

Major Products:

Using its industry-leading Integrated Inertial/GPS sensor technology, Applanix offers a number of Position and Orientation System (POSTM) products:

- POS LVTM (Land Vehicles): Provides continuous position and attitude (pitch, roll and heading) measurements for road vehicles. Applications include: Mobile Data Collection, GIS, Road Surveying
- POS TGTM (Track Geometry): Provides precision rail track measurements for the inspection of railroad track geometry.
- POS MVTM (Marine Vessels): Measures the motion of multibeam echosounders for seafloor mapping applications.
- POS AVTM (Airborne Vehicles): Measures the position and attitude of airborne sensor platforms for aerial survey and mapping applications.
- POSPacTM: Post-processing software designed for the analysis of POSTM data.
- DSSTM: DSS (DSS Digital Sensor System) is a ready-to-use, directly georeferenced, medium-format, airborne digital camera system.

Technical Support and Services:

Applanix customers are guaranteed the best customer support in the industry. Each POS purchase includes multi-day on-site installation and training by an Applanix technical representative. Customer support is available remotely anytime, and if necessary, a representative will be dispatched to anywhere in the world – even on short notice. Customers generally deal with the same Applanix representative, and they typically develop a close relationship with



their rep. As a result, reps are familiar with customers' product applications and unique requirements, and are better able to answer any questions or concerns that may arise.

Facilities:

Applanix truly is a global company. In addition to the Head Office in Richmond Hill, Canada, Applanix is establishing regional sales and support offices in Europe and the United States to better meet current and future clients' needs. For customers in other regions, Applanix products are available through a worldwide network of sales agencies.

Applied Imagery

8070 Georgia Avenue Silver Spring, MD 20910 (301) 589-4004; (301) 589-4005 (fax) info@appliedimagery.com www.appliedimagery.com

Applied Imagery is a geospatial software company specializing in 3-D visualization and analysis



of LiDAR and Synthetic Aperture Radar (SAR) surveys. Applied Imagery's software, the Quick Terrain Modeler, can build enormous models quickly, navigate through them in real time and provide valuable analyses in seconds. The Quick Terrain Modeler can perform flood simulation, change detection, cross section analysis, line of sight models, volume calculations, aerial photo overlay and a variety of other analytical functions. The Quick Terrain Modeler can input and output a wide variety of data formats. It is also very easy to use, thereby minimizing an organization's training burden. Applied Imagery's software is in use in the US Department of Defense, US federal government agencies, the surveying community, academia, and industry in the US and internationally. The Quick Terrain Modeler was formerly called the QT Modeler and was originally created at Johns Hopkins University's Applied Physics Lab (APL).

Axis GeoSpatial, LLC

8600 Brooks Drive, Suite A Easton, MD 21601 (410) 822-1441; (410) 822-6225 (fax) jlahman@axisgeospatial.com www.axisgeospatial.com

Headquartered in Easton, Maryland with branch offices in Rochester, New York and Boulder, Colorado, Axis GeoSpatial is a multidisciplined, full-service photogrammetric aerial mapping



firm specializing in providing and updating functional solutions required to support the core information required in GIS and engineering applications. We employ unparalleled project management and state-of-the-art photogrammetric technology using precision aerial imagery and specialized equipment, employing a talented staff of geospatial experts specializing in GIS strategic planning, consulting, development, design, implementation and integration. With more than thirty years experience, we have assembled a team

of geospatial professionals who have extensive experience in managing and performing citywide, countywide and regional mapping projects throughout the USA and abroad.

Axis GeoSpatial is known for dependability, accuracy, and superior quality with a consistent track record in meeting technical requirements on-time and on-budget. With our ISO initiative in motion, Axis joins a network of product and service-oriented organizations who achieve standards of value that are recognized and respected throughout the world. Simply put, Axis GeoSpatial professionals do what they must to provide intelligent solutions specifically designed to meet our clients' unique spatial information and quality requirements. Our benchmark is our commitment to excellence.

APPLICATIONS:

- ·Long Range Planning
- ·Sub-Division Planning & Design
- · Commercial & Residential Site Planning
- ·Sewer & Water Design
- · Plant/Facility Planning & Management
- · Roadway Design
- ·Storm Water Management
- · Utility Management
- · ALTA Surveys
- · Landfill/Quarry Management
- Topographic Surveys
- · As-Built Surveys
- · Volumetric/Quantity Calculations

SERVICES:

- •GIS Strategic Planning, Development & Implementation
- · Planimetric Mapping
- ·Terrain Modeling & Topographic Mapping
- · Digital AeroTriangulation
- · Digital Ortholmagery
- · Fixed Wing Flight Services
- Helicopter Flight Services
- ·LIDAR
- · Data Review & Quality Assurance
- · Aerial Data Acquisition
- · Black & White Photography
- · Color Photography
- Color Infrared Photography
- · Spot-Shots & Oblique Photography
- Enlargements
- · High Resolution Film Scanning

MAPPING & GIS SOLUTIONS:

- · Emergency Management
- · Public Works
- · Planning & Zoning
- $\boldsymbol{\cdot} \text{Transportation}$
- Assessment
- · Homeland Security
- Forestry
- Environmental Consulting
- Defense



Ayres Associates

1802 Pankratz Street Madison, WI 53704 (608) 443-1200; (608) 443-1250 (fax) HalfenF@AyresAssociates.com www.AyresAssociates.com

Responding to the evolving needs of our clients – that's what we've been doing for half a century. And we've brought this client-focused philosophy to mapping projects around the coun-



try, from the dense urban areas of Atlanta and Detroit to the open range of eastern Colorado, from the complex river valley system of central California to the dynamic ecosystems of Florida's coast.

Need momentum to build a multi-entity mapping consortium? Ayres Associates has been a leader in mapping consortium formation and recently helped bring nearly 200 participants together for the single largest mapping initiative in Wisconsin history.

From data development to data distribution, Ayres Associates' ability to provide comprehensive spatial data services means clients enjoy the benefits of a single source for all of their mapping needs. In an industry characterized by frequent innovation, we never lose sight of the fundamentals: Mapping methods may change, but the importance of quality and reliability remains constant.

Services include:

- · Aerial imagery acquisition
- · Airborne GPS/IMU
- · Analytical aerotriangulation
- · Planimetric and topographic mapping
- · Digital terrain modeling
- · Digital orthophotography
- · Remote sensing
- · LiDAR
- ·GIS consulting, training, and development
- GPS and conventional surveying

Photogrammetric production is headquartered in our Madison, Wisconsin office. From our network of 18 offices around the country, Ayres Associates provides a range of mapping services.

BAE SYSTEMS

11487 Sunset Hills Rd Reston, VA 20190 (800) 316-9643; (703) 668-4385 (703) 668-4381 (fax) capabilities@baesystems.com www.baesystems.com/gxp

BAE Systems is the premier trans-Atlantic defense and aerospace



company, delivering a full range of products and services for air, land and naval forces, as well as advanced electronics, information technology solutions and customer support services.

BAE Systems' Geospatial eXploitation Products (GXP) is the developer and supplier of SOCET SET® and SOCET GXP® software, widely used for GIS, mapping, photogrammetry, image and geospatial analysis, visualization, simulation, and mission preview/

rehearsal. SOCET SET and SOCET GXP are commercial off-the-shelf products for defense and commercial applications. SOCET SET is the established, market-leading software, with comprehensive, powerful functionality for triangulation, DEM extraction, orthorectification, mosaicking and feature collection. It is renowned for its unequalled flexibility, depth, performance, and ability to ingest data from numerous government and commercial image sources.

In keeping with BAE Systems' vision that a wide range of analysis tasks are merging into a single market requiring a single product, SOCET SET's photogrammetric strength is being transferred to SOCET GXP and enhanced by SOCET GXP's fresh architecture and productive user interface. Both products are suitable for use as development platforms, enabling customers and systems integrators to create complex government off-the-shelf and commercial solutions.

In addition, the Geospatial Data Production business delivers consulting, geospatial systems engineering, GIS application development, and geospatial data production services in support of national security activities. Specialties include web enabled enterprise solutions for managing incident command systems, common operating pictures, and integrated geospatial workflows. Customers range from national intelligence and defense agencies to state, local and corporate clients looking for comprehensive geospatial solutions in support of facility, regional, and national security.

BAE Systems' program teams identify and foster new ideas in response to customer requests, develop these into advanced concepts, then integrate the resulting new technologies into working programs. Thus a steady stream of leading-edge developments is available to the commercial products and services. Its broad technical expertise, extensive resources, and engineering staff, coupled with industry-leading research, have positioned the company at the forefront of those working with emerging technologies.

For more information, please contact:

General Company Information

Keith Lewis Tel: (703) 907-8261 keith.p.lewis@baesystems.com

GXP Commercial Products

Dr. Stewart Walker Tel: (858) 592-1764 stewart.walker2@baesystems.com

Geospatial Data Production

Mark Safran Tel: (856) 866-9700 mark.safran@baesystems.com



Bohannan Huston, Inc.

Courtyard 1 7500 Jefferson St. NE Albuquerque NM 87109-4335 (505) 823-1000; (800) 877-5332; (505) 798-7988 (fax:) mail@bhinc.com

Bohannan Huston, Inc. is a recognized leader in

Bohannan ▲ Huston ■

all facets of Spatial Data Technologies, serving clients in both the government and private sectors. Celebrating 45 years, our firm has grown dramatically in experience, knowledge and resources. Our commitment to excellence means that we utilize the latest cuttingedge technology in providing spatial data services.

Our experienced Spatial Data Team can:

- ·Survey and map your project
- Develop project data through a variety of interactive and automated processes
- Customize and develop software applications that address your specific needs
- ·Create virtual sites with digital visualizations and modeling
- •Solve project problems using digital imagery, presentation and media

Our continuing goal is to harness the latest information technologies to provide our clients with the most accurate and useful information, derived from the most appropriate source, whether it be aerial photography, satellite imagery, LIDAR, radar or multispectral. To respond to the growing needs of municipal, state and federal agencies for Geographic Information, we have invested heavily in our workforce and our technology.

Bohannan Huston's commitment to cutting-edge technology led to the recent addition of Ground Based LIDAR Scanning services, introducing new possibilities for spatial data acquisition. We can efficiently, safely and accurately produce three-dimensional models of structures and sites, utilizing one or two-person crews. What previously required days of work for a survey crew can now be accomplished within minutes. Areas considered inaccessible or too dangerous to measure directly can now be captured remotely at distances up to 100m.

Bohannan Huston is committed to providing cost-effective, vital, reliable and visionary services. Our vision is to provide extraordinary services that improve the quality of life for our clients and their customers worldwide.

Booz Allen Hamilton

8283 Greenboro Drive Mc Lean, VA 22102-4904 (703) 902-5000; (703) 735-3347 (fax) lafeir_leonard@bah.com www.boozallen.com

Booz Allen Hamilton has been at the fore-

434

Booz | Allen | Hamilton

front of management consulting for businesses and governments for more than 90 years. Providing consulting services in strategy, operations, organization and change, and information technology, Booz Allen is the one firm that helps clients solve their toughest problems, working by their side to help them achieve their missions. Booz Allen is committed to delivering results that endure.

For more than two decades, Booz Allen has used its imagery and geospatial information systems (GIS) experience to help meet the imagery and geospatial needs of clients in national security, federal civil agencies, and commercial communities. Booz Allen provides dynamic imagery-based solutions to help decision makers and end users understand how imagery and GIS can contribute to economic, environmental, and security challenges around the world.

The firm offers expertise in commercial remote sensing systems, and our team of professionals is skilled in advanced technology identification and assessment, imagery and geospatial support, imagery analysis and science, and laboratory infrastructure support. Booz Allen provides effective imagery and geospatial data solutions for a full range of government and business applications.

A recognized leader in using information technology to solve complex issues, Booz Allen helps clients achieve imagery-based solutions tailored to meet their specific geospatial information and application needs.

With 18,000 employees on six continents, the firm generates annual sales that exceed \$3.7 billion. Booz Allen provides services to the world's leading corporations, government and other public agencies, emerging growth companies, and institutions.

To learn more about the firm, visit the Booz Allen Web site at www.boozallen.com. To learn more about the best ideas in business, visit www.strategy-business.com, the Web site for strategy+business, a quarterly journal sponsored by Booz Allen.

Cardinal Systems, LLC

701 N Oceanshore Blvd. Flagler Beach, FL 32136 (386) 439-2525; (386) 439-0259 (fax) info@cardinalsystems.net www.cardinalsystems.net

Cardinal Systems, LLC is a provider of software for use in the mapping industry. Its flagship program, VrOne®, is a powerful photogram-



metric vector collection and editing system with Digital Terrain Modeling (DTM) and image display capability. Photogrammetry today requires the mapping professional to deliver vector, image and DTM data as digital products. VrOne addresses many of the problems encountered in handling the collection, editing and plotting of vector, image and DTM data.

Mike Kitaif, the author of several popular mapping programs, directs Cardinal's software development team. Mike brings over twenty-five years of mapping, software design and programming to Cardinal. Cardinal also offers VrTwo, a cost-effective softcopy stereo system. VrTwo allows the orientation of a stereo pair of photographs and the display and extraction of three-dimensional vector data using VrOne. Other features include on-demand autocorrelation, DTM processing, image manipulation and data translation. Other available Vr Mapping products are VrAirTrig for aerial triangulation measurement, VrAdjust for aerial triangula-



tion adjustments, VrOrtho for image rectification, VrMosaic for interactive splicing of images, VrBalance for offline multiple image balancing and VrVolumes for volume calculations. Future products will include VrLite which will combine a light functionality of VrOne and VrTwo. All modules enjoy the familiar Vr feel and require little training once familiar with VrOne.

Cardinal's corporate mission is to aggressively maintain its market position in software development while keeping abreast of its clients' needs through superior service and response. All software developed by Cardinal Systems is designed for easy input into other CADD and GIS software packages and devices such as plotters. Cardinal's steadily growing list of clients includes many private companies as well as local, state and Federal agencies. Our software is in use throughout North America and Europe as well as Central/South America and Asia .

Based in our new training facility and corporate office in Flagler Beach, Florida, Cardinal aims to produce a suite of programs that blend with each other and perform virtually all software functions required in the survey and mapping industry.

Cardinal maintains reseller agents in the United Kingdom, India and Colombia, South America. For more information, please contact us at (386) 439-2525; Fax: (386) 439-0259; Email: info@cardinalsystems.net or visit our web page at www.cardinalsystems.net.

CH2M HILL

P. O. Box 2088 Redding, CA 96001 (530) 243-5886; (530) 339-3239 (fax) bfox@ch2m.com www.ch2m.com

CH2M HILL is a full-service consulting firm of engineers, planners, economists, scientists, surveyors, photogram-



metrists, and GIS analysts with more than 18,000 employees in over 300 offices worldwide. It is the largest employee owned consulting firm in the U.S.

CH2M HILL's Geospatial Data Solutions Group is highly qualified to provide innovative and cost-saving mapping services for planning and design level projects. Our mapping deliverables are tailored to our client's projects. Thorough discussion and review of client needs are used to identify suitable, imagery/aerial photography, map scales, accuracy requirements, and final CAD, CAE, or GIS deliverable content and format so that mapping products can be cost-effectively produced.

CH2M HILL's Professional Licensed Land Surveyors enjoy a wide range of surveying equipment including High Definition Survey (HDS) terrestrial LiDAR equipment, geodetic grade and resource grade GPS receivers with radio link capabilities, Total Stations, high precision electronic levels, and portable computing systems to support survey crews on a global basis.

Photogrammetric mapping services include aerial triangulation, softcopy raster imagery generation and manipulations, direct

stereo compilation of digital planimetric and topographic mapping products in a variety of CAD, CAE, and GIS formats. Our services also include the delivery of photogrammetric and airborne LiDAR planning and design level digital terrain model and digital elevation model data sets. The firm also produces digital orthophotography, and computerized photoplan/profile sheets using orthorectification or simple photo-rectification techniques overseen by our ASPRS Certified Photogrammetrists. Common mapping/data output formats include AutoCAD, MicroStation, ArcGIS, INROADS, Terramodel, ERDAS Imagine, and a multitude of other raster imaging and terrain modeling formats.

Remote sensing, visualization, and GIS database development services are performed by experienced GIS analysts and technologists, including data/image interpretation and computerized data processing of scanned and scan digitized information. Project applications include agriculture, urban planning, forestry, water resources, environmental planning and restoration, NPDES studies, route selection, FERC licensing, storm drainage runoff calculations, and airfield obstructions studies.

The American Surveyor Magazine

905 West Seventh Street, #331 Frederick, MD 21701 (301) 668-8887; (301) 695-1538 (fax) publisher@theamericansurveyor.com www.TheAmericanSurveyor.com

The American Surveyor (www. theamericansurveyor.com), a magazine created by surveyors for surveyors, delivers to the reader's doorstep a one-of-a-



kind publication that informs, educates, entertains, and inspires. More than twenty nationally known and respected licensed surveyors came together in late 2003 to provide content and help launch this publication. Drawing from forty years' of experience in all aspects of land surveying—from field to management, and technical support to journalism—editor and licensed surveyor Marc Cheves understands the profession from the ground up. Since the late 1970s he has worked with surveying technology and brings information to the readers that they simply won't find anyplace else. Cover to cover and issue to issue the contributing editors highlight topical news and information, technology breakthroughs, product reviews, business advice, industry trends, controversial issues, and challenges that lie ahead.

GlSuser.com (www.gisuser.com), launched on March 1, 2004, aims to become the largest independent GlS user community in the world, providing daily industry news updates, interviews with leading industry figures, product reviews and announcements, discussion forums, business and career opportunities, tutorials, data directories, and much more. Developed and managed by popular GlS media analysts, Glenn Letham and Richard Bremer, GlSuser. com is the next-generation online community resource for the geospatial technology user. The target audience ranges from enterprise GlS architects, GlS managers, corporate CEOs, application developers and analysts, to the casual desktop mapping enthusiast.



Spatial Media, owner of GlSuser.com, is a subsidiary of Cheves Media, publisher of The American Surveyor magazine. The companies are strategically aligned to develop their "Spatial Communities" vision.

Clark Labs/Clark University

950 Main Street Worcester, MA 01610-1400 (508) 793-7526; (508) 793-8842 (fax) lcanavan@clarku.edu www.clarklabs.org

Clark Labs is dedicated to the research and development of geospatial technologies for effective and responsible deci-



sion making for environmental management, sustainable resource development and equitable resource allocation.

Clark Labs is best known for its flagship product, the IDRISI GIS and Image Processing software. Since 1987, IDRISI has been used by professionals in a wide range of industries in more than 175 countries worldwide. Environmental managers and researchers benefit from the unsurpassed range of geospatial tools—over 250 modules for the analysis and display of digital spatial information.

Based within the world-renowned Graduate School of Geography at Clark University, Clark Labs is known for pioneering advancements in areas such as decision support, uncertainty management, classifier development, change and time series analysis, and dynamic modeling. Partnering with such organizations as USDA, the United Nations and Conservation International, Clark Labs leverages its academic base to develop innovative and customized research tools, provide software solutions to organizations in need and apply geospatial expertise to a range of real-world problems.

COL-EAST, Inc.

Post Office Box 347 Harriman & West Airport North Adams, MA 01247-0347 (800) 359-8676; (413) 663-3489 (fax) info@coleast.com www.coleast.com

Col-East, Inc., founded in 1952, has become a leader in providing the Northeastern US engineering and survey community with the highest quality digital mapping and orthophotography possible. In our view quality mapping includes a high de-



gree of accuracy, careful attention to detail and completeness, and requires consideration of the needs of the client regarding delivery format and schedule.

Our clients range from individual landowners to the Federal Government and include foresters, architects, planners, surveyors, engineers, landscape architects, planners, attorneys and universities. Our work is used for conceptual planning through construction design for infrastructure work (roadway/highway and sewer/water

construction or reconstruction), residential and commercial development, watershed studies, and environmental assessment and remediation.

We operate an Aero Commander 500B aircraft equipped with a Zeiss LMK 2000 camera, with gyro-stabilization and forward-motion compensation. Our flight crews have several decades of experience working in the congested airspace found in the northeastern United States. Flight planning, navigation and indexing are accomplished through GPS.

We operate our own black and white laboratory, equipped with Kodak Versamat film processor, Kodak 125 print processor, Actii Copius camera/enlarger, EPC UDS-1 printer, etc. In addition to supporting the mapping department the lab prints thousands of prints and enlargements each year from our extensive historical library of photography.

Since the early 1980's we have built an extensive library of current mapping photography on a speculation basis. The coverage extends from Massachusetts and Rhode Island to southern New Hampshire, central Connecticut and eastern New York. In addition to providing our clients with reasonably priced photo products it enables us to make the maximum usage of our short New England flying season and provide our clients with mapping on short notice during the rest of the year.

We perform our own digital aerotriangulation with a DVP-AT Workstation and AeroSys»AT software. Our seven stereoplotters include (3) KLT Atlas DSP WorkStations, (1) DVP Digital Softcopy WorkStation, (2) Kern DSR-11's, and a Zeiss C-120. Digital orthophotos are produced on our KLT DSP WorkStation. Scanning is performed on a Wehrli RM-1 Rastermaster. All mapping work is performed in the KLT ATLAS environment. Data is edited off-line and translated into delivery form according to instructions from the client using KLT and in-house translators.

CRC Press - Taylor & Francis Group

6000 Broken Sound Parkway, Suite 300 Boca Raton, FL 33487 (561) 994-0555; (561) 381-6018 (fax) orders@taylorandfrancis.com www.crcpress.com

CRC Press – Taylor and Francis Group is a premier publisher of references and textbooks, electronic databases and



journals in GIS and Remote Sensing. Founded as the Chemical Rubber Company, CRC originally manufactured and distributed laboratory supplies for chemists. It first distributed its Handbook of Chemistry and Physics free as a bonus incentive to customers who purchased a rubber apron, one of the company's signature items. In 1913, the first edition of the "Rubber Handbook" had 116 pages. Eighty-seven editions later, the CRC Handbook of Chemistry and Physics remains the definitive reference for chemists, physicists, and engineers throughout the world. Today, CRC Press provides academicians and researchers with immediate access to information through a myriad of electronic products.



CRCnetBASE, our collection of online databases, provides a portal to an ever-growing supply of information. Every month, we add new resources to each netBASE to provide up-to-date, comprehensive information. Following the success of ENGnetBASE, CHEMnetBASE, ATSDR Online, and ENVIROnetBASE, expect to see more excellent online collections, including POLYMERSnetBASE, VisualMEDICINEnetBASE, and BIOTECHnetBASE.

In 1973, the Chemical Rubber Company sold their manufacturing division and related activities. Concentrating exclusively on publishing, the name was changed to CRC Press, Inc. In 1986, CRC was purchased by Times Mirror Company and subsequently expanded its product line to include a broad range of textbooks and references for scientific, medical, and technical professionals. Information Ventures LLC, in partnership with Warburg Pincus, purchased CRC Press in January 1997 and changed its name to CRC Press LLC. CRC Press became a publicly held company under the ownership of Information Holdings, Inc (IHI) in August 1998. In April 2003, one great tradition joined another as CRC Press became part of the Taylor & Francis Group of companies. Founded in 1798, Taylor & Francis is a leading international academic publisher devoted to disseminating scholarly information of the highest quality.

DAT/EM Systems International

8240 Sándlewoód Place; Suite 101 Anchorage, AK 99507-3122 (907) 522-3681; (907) 522-3688 (fax) sales@datem.com www.datem.com

DAT/EM Systems International is a leader in the development of software for digital mapping and photogrammetric applica-



tions. Currently, DAT/EM Systems serves over 350 photogrammetric firms, engineering firms and government agencies in more than 50 countries worldwide.

With an ever-changing technological climate in the mapping world, DAT/EM Systems stays committed to continued development and implementation of state-of-the-art software and hardware for digital mapping applications. In its twentieth year, DAT/EM Systems employs highly technical and creative personnel, integrates cutting-edge technology and performs it business transactions in an honest and open manner. We take pride in a reputation for delivering quality systems and superior customer support.

DAT/EM Systems recognizes the importance of evolving with our clients. We welcome all suggestions and feature requests and consider our clients to be an integral part of the development process.

DAT/EM Systems makes mapping easier and provides precise data collection and vivid 3D stereo viewing with the following tools: ${}^{\bullet}$ SUMMIT EVOLUTION ${}^{\text{TM}}$: An affordable, accurate, user-friendly

•DAT/EM CAPTURE™: Our popular stereoplotter interface and feature data collection program is offered in three stand-alone modules and are used for collecting 3D data directly into AutoCAD®, MicroStation™, or ArcGIS™. DAT/EM CAPTURE

can be used with either the SUMMIT EVOLUTION stereoplotter, other digital stereoplotters or various mechanical stereoplotters.

- · DAT/EM CAPTURE for AutoCAD
- · DAT/EM CAPTURE for MicroStation
- · DAT/EM CAPTURE for ArcGIS
- DAT/EM MAP/EDITOR™: Software for automatic batch and vector editing in AutoCAD or MicroStation.

DAT/EM Systems International also offers the following services:

- •IMA analytic stereoplotters refurbished to interface with Windows based PC's.
- •IMA Upgrades on our clients' stereoplotters to interface with Windows based PC's.
- •Analytical Servicing on the following stereoplotters: P1, P2, P3, P33 and converted C100, C110, C120 and C130 plotters.
- •DAT/EM CAPTURE for AutoCAD, MicroStation or ArcGIS for traditional analogue and analytical stereoplotter.

DEFINIENS, Inc.

Earth Business Unit 4450 Arapahoe Avenue, Suite 100 Boulder, CO 80303 (303) 546-7935; (303) 546-7936 (fax) info@definiens.com

About Definiens

DEFINIENSThe Image Intelligence Company

Definiens is a global leader in providing advanced image

intelligence solutions and services that enable its clients to harness all relevant information from digital image to support fast and accurate decision making crucial to its business process.

Definiens' products are built on its platform technology (eCognition) that represents a quantum leap in the realms of digital image analysis. Our products are offered across chosen markets, initially focusing on Earth Observation/Remote Sensing (EO/RS) and Life Sciences.

Definiens offers advanced and robust image analysis solutions to accelerate the drug discovery, development, and diagnostics processes in life sciences, and perform satellite and aerial image classification more intelligently, more accurately, and more efficiently than traditional methods.

Definiens has customers worldwide in the areas of Life Sciences and Earth Observation/Remote Sensing (EO/RS), including leading companies, academic centers, and government agencies. Founded in 1994 by Nobel Laureate Prof. Dr. Gerd Binnig, Definiens is based in Munich, Germany. For further information regarding the company and its products please visit www.definiens.com.

digital PC-based mapping system.



DeLorme

2 DeLorme Drive Yarmouth, ME 04096 207-846-7114; (800) 575-2244 (fax) geoffrey.ives@delorme.com www.delorme.com/professional

Founded in 1976, DeLorme is a leading supplier of paper maps and atlases, consumer and



professional software and GPS hardware, and digital data.

The DeLorme product line has recently expanded to include Professional GIS Solutions and TopoBird - a fully digital 3D aerial mapping platform. With multispectral sensor and LiDAR scanner flown simultaneously, TopoBird integrates one of the the most advanced commercial aerial remote sensing technology available.

DeLorme Professional XMap GIS software is an affordable, easy-to-use alternative addressing the needs of the utility, transportation, government, natural resource, environmental, and business markets.

For more information, visit www.delorme.com/professional or contact geoffrey.ives@delorme.com

Dewberry

8401 Arlington Blvd. Fairfax, VA 22031-4619 (703) 849-0396; (703) 849-0182 (fax) dmaune@dewberry.com www.dewberry.com

Headquartered in Fairfax, Virginia, with 33 branch offices in



16 states, Dewberry is a full-service Architecture-Engineering firm with over 1,840 employees. Founded in 1956 by Sidney Dewberry, the firm is one of America's leading suppliers of digital mapping and GIS solutions, providing expertise in digital elevation modeling, independent quality control of LiDAR and digital orthophoto data, spatial data conversion, data modeling, GPS inventories, remotely sensed and photogrammetric data analysis/ interpretation, hydrologic and hydraulic modeling, and GIS application development and integration.

Because of Dewberry's unique expertise in elevation technologies, our elevation experts have authored and edited the ASPRS textbook, "Digital Elevation Model Technologies and Applications: The DEM Users Manual" (1st & 2nd editions) authored the DEM chapter in ASPRS' textbook, "Digital Photogrammetry: An Addendum to the Manual of Photogrammetry;" authored NGS' "National Height Modernization Study, Report to Congress;" and authored various elevation data guidelines and specifications for FEMA as well as the National Digital Elevation Program (NDEP).

Dewberry has been successfully providing geospatial services through prime contracts to the U.S. Department of Homeland Security (FEMA), U.S Department of Interior (USGS), U.S. Department of Commerce (NOAA), U.S. Department of Defense, and numerous state and local governmental agencies, as well as private sector firms.

Dewberry specializes in performing independent QA/QC of digital orthophotos and lidar datasets produced by other firms

for federal, state, and county clients, ensuring conformance with rigorous acceptance criteria. Dewberry is also a GIS specialty firm, winner of ESRI Business Partner of the Year honors for 2005.

In addition to Digital Mapping and GIS, Dewberry also performs complete architecture and engineering services, with emphasis on transportation planning and engineering, construction engineering services, water resources management, land design and surveying, municipal and environmental engineering, building services and architecture, and disaster response and recovery management.

Digital Aerial Solutions, LLC

8409 Laurel Fair Circle, Suite 100 Tampa, FL 33610 (813) 628-0788; (813) 628-0777 (fax) mwaz@digitalaerial.com www.digitalaerial.com

Digital Aerial Solutions, LLC, (DAS), Tampa, Florida provides precision digital aerial data acquisition, and imagery processing services. DAS



employs two of Leica's latest generation ADS-40 airborne digital large-format sensors flown onboard a twin-engine Cessna 441 Conquest-II and 421C Golden Eagle aircraft equipped with airborne GPS, IMU instrumentation and an onboard flight management system for monitoring data acquisition and system performance. The ADS-40 sensor, having an all-digital flow-line, has simultaneous panchromatic, red, green, blue and near infrared band collection capability for multispectral analysis, stereo viewing, and large area mapping projects.

DAS' complete digital workflow starts at mission flight planning through image acquisition, data download from aircraft into automated processes to perform aerotriangulation, support digital elevation/terrain model (DEM/DTM) development and produce a full range of orthorectified seamless mosaics. Our softcopy ground processing technology is proven state-of-the-art utilizing Leica GPro® image processing workstations and a GeoVault® data management system. The direct digital imagery processing capability is designed for rapid product turn-around of timely information; works with scanned film, other airborne digital imagery and satellite data.

DAS serves engineering, architectural, agricultural, forestry and environmental firms, as well as federal, state, county and local government agencies for their precision geospatial information needs. DAS' ability to provide rapid response mapping services has been tested in the most difficult of circumstances—amid natural disasters in the aftermath of Hurricanes Jeanne, Frances, Ivan Rita, Katrina and Wilma working in partnership with the USACE and FEMA. Our focus combines the advanced technology of the ADS40 digital sensor and an efficient production capability to quickly deliver the high-accuracy geospatial data critical for supporting our client's damage assessment and recovery efforts.

Digital Aerial Solutions, LLC is licensed by the State of Florida's Board of Professional Surveyors and Mappers (LB#7289). The company is a small emerging business, Veteran Owned (Vietnam Era).



Digital Mapping, Inc. (DMI)

21062 Brookhurst Street, Suite 101 Huntington Beach, CA 92646 (714) 968-5459; (714) 968-2429 (fax) admi@admap.com www.admap.com

Digital Mapping, Inc. (DMI) is a Woman Business Enterprise corporation which was established in 1987 and holds



a status as MBE/WBE with the County of Los Angeles. Our team is now considered one of the nation's leaders in Z/I imaging's Digital Modular Camera (DMC) based aerial photography and orthophotography production. Our entire team's qualifications and experience are the footings in the foundation of a sound technical approach for both the engineering and planning scales required...

DMI is located in Huntington Beach, California USA. We offer our services both nationwide and internationally. DMI specializes in Aerial Photography(traditional frame and state of the art digitally), Surveying, Digital Orthophotography, Airborne GPS, Digital Photogrammetric Mapping, Close-range photogrammetry, digital elevation/terrain model (DEM/DTM), GIS image analysis and topology, GPS support, GIS data conversion, data conversion, scanning and 24/7 technical support to all of our friends and clients.

Digital Mapping, Inc.'s staff members have achieved professional status as certified photogrammetrists, computer programmers, GIS licensed, professional land surveyors and digital orthophoto mapping experts.

We are photogrammetric engineers, surveyors and computer experts in the development of graphic and non-graphical data base mapping. We currently operate the industry's most advanced functional equipment in photogrammetric mapping. Last year, for our clients, DMI provided 3" and up to 1 foot pixel resolution color and infrared digital orthophotos for areas encompassing 8,000 square miles. These projects were flown using our state of the art "Digital Mapping Camera (DMC)" equipped with Airborne GPS/IMU (Inertial Measurement Unit) system.

Digital Mapping, Inc. is one of a few companies with 100% analytical mapping capability, including analytically produced orthophotos. All of our image library is accessible and available through our valuable www.gisbank.com.

We can perform volume computations, digital terrain modeling, profiling and many other tasks on Intergraph Bentley Microstation, AutoCAD or any other system that meets our partner's expectations. DMI's primary strength is the tried, tested, and proved full range of services, without compromise, that consistently exceed expectations.

Our awareness of the need for quality control and its implementation is confirmed by the fact that more than 70% of our business is from repeat clients. Our methodology is straight forward, although we adhere to a traditional photogrammetric approach, we integrate high value digital processing techniques.

The digital orthophoto equipment and softcopy workstations are state-of-the-art technology from Carl Zeiss, Z/I Intergraph, and

KLT digital orthophoto systems. The rectified orthophotography image product (individual tiles and/or a project wide mosaic) are reviewed for horizontal accuracy against any partner's existing image data sets, street centerlines, contours and ground photo control, as well as reviewed for optimization of completeness and clarity.

DigitalGlobe

1601 Dry Creek Drive; Suite 260 Longmont, CO 80503 (800) 496-1225 or (303) 684-4561; (303) 684-4562 (fax) info@digitalglobe.com www.digitalglobe.com

DigitalGlobe® was founded in 1992 as the first commercial provider of geospatial satellite



imagery. The role of geospatial information has changed dramatically over the past two decades, and today geospatial data is a critical element in many of the desktop, internet and enterprise information systems that businesses and governments rely on for mission-critical decision support. DigitalGlobe continues to lead the industry, providing the most complete, easiest-to-access source of high-resolution geospatial content to meet the needs of organizations in the commercial, civil government, defense and intelligence communities. Today, DigitalGlobe's Image Library is the largest and most complete source of unclassified high-resolution satellite imagery available. Every day hundreds of public, private and governmental organizations rely on DigitalGlobe to meet their specific needs for current and high-resolution geospatial content that integrates easily into existing IT and GIS infrastructures. These organizations leverage DigitalGlobe content for driving contextual and mission-critical applications, increasing the value of information, and creating new ways to achieve competitive advantage.

The DigitalGlobe difference:

DigitalGlobe is the only geospatial content provider to take an end-to-end approach to geospatial imagery, from acquiring proprietary high-resolution images through a leading-edge satellite and aerial network, to integrating and distributing that data through GlobeX-plorer, a proprietary web-based search and retrieval system that makes it easy to find, purchase and download global imagery. To the customer, DigitalGlobe becomes the "One-Stop-Shop" for accurate, current, context-aware, high-resolution, unclassified digital Earth imagery.

DigitalGlobe gives you:

The industry's most complete, most current provider of high resolution digital Earth imagery and products.

An integrated Web-based delivery platform for faster, easier discovery and delivery of geospatial information and products.

The only company with two second generation digital imagery satellites under construction; the company continues to outpace competitors in improving the capacity, flexibility and agility of its constellation.



What you need, when you need it, anywhere on Earth:

DigitalGlobe is building a constellation of high-resolution earth imaging satellites and a comprehensive geo-information product store – digitalglobe.com – that allows you to quickly access and order a wide variety of imagery and derivative information products, including:

- · 60-centimeter panchromatic and color imagery
- 2.4-meter multispectral imagery
- Robust 60-centimeter and better than one meter aerial Library All together, DigitalGlobe data sources represent the market's most robust collection of up-to-date spatial information.

The DigitalGlobe System:

The DigitalGlobe System facilitates the collection and archival of high-quality geospatial information data and ensures the most easy-to-use and flexible distribution possible. DigitalGlobe's Quick-Bird satellite is the world's highest resolution commercial imaging system. The company's next-generation WorldView 1 satellite is scheduled to launch in mid-2007, and its WorldView 2 satellite is anticipated to launch in late 2008.

DigitalGlobe's QuickBird satellite features several technical advantages for providing clear and accurate imagery:

- · Highest available resolution
- · Highest collection capacity
- · Highest accuracy
- ·The largest high-resolution swath width

Customers can choose from significant, relevant, current imagery in our extensive satellite and aerial ImageLibrary or task QuickBird to collect up-to-date information relevant to their specific requirements. To learn more about tasking, please contact Customer Service at: 800-496-1225.

To learn about the DigitalGlobe products, please visit our website at: www.digitalglobe.com. DigitalGlobe is headquartered in Longmont, Colorado.

DIMAC SYSTEMS, LLC

1230 Hunter Court Longmont, CO 80501 (303) 651-2018; (303) 651-7693 (fax) info@dimacsystems.com www.dimacsystems.com

Fulfilling the Promise of Digital Imagery



DIMAC Systems truly believes that

behind its mission and desire to offer a new product lies something even more significant: the will to provide a new approach to digital aerial cameras. This concept focuses on a simple, practical and dedicated device in which functionality and flexibility prevail over rigidity and complexity, with one purpose in mind: meeting the imagery acquisition needs of aerial photography companies.

The development of the DiMAC has been based on over 20 years of experience in aerial cartography. As such, the DiMAC incorporates all of the essential requirements for a large format digital aerial camera, including the following features:

· Area CCD sensor that produces frame-based imagery

- · A new footprint of 10,500 by 7,200 pixels
- ·True color imagery acquired from a color CCD
- True forward motion compensation (FMC) performed directly on the CCD during image acquisition
- Flexible and modular system configuration that allows for an optimal photogrammetric and orthophoto solution
- **Upgradeable design** that is easily maintained in the field, resulting in a **cost-effective** large format digital aerial camera

Today this affordable, practical and functional camera system is offered not only to users from Europe but also in North America through DIMAC Systems, LLC a DIMAC Systems s.à.r.l. joint venture with VXServices, LLC located in Longmont, Colorado. DIMAC Systems, LLC represents a fully integrated company combining innovative product development already performed in Europe with strong manufacturing and support expertise based in North America.

Headquaters:

DIMAC SYSTEMS, sàrl 95 Grand Rue L-3313 Bergem LUXEMBURG

+ 352 2651 2166; + 352 2651 2165 (fax)

Dudley Thompson Mapping Corp. (DTM)

7445 132nd Street, Suite 2025 Surrey, BC V3W 1J8 Canada (604) 592-6522; (866) 902-2923 (fax) info@dtm-global.com www.dtm-global.com

DTM Corporation was formed in September 2006, to provide aerial photography, scanning, aero-triangulation, digital mapping and orthophoto services. The principals, Nick Dudley, CGM and Mike Thompson, P.Eng. combined their knowledge and experience of 36 years in the mapping sciences to form a company whose focus is on accuracy,



quality and timing of products and services using leading technologies and tools.

DTM chose VrOne and VrTwo for its softcopy photogrammetric solution. Developed by Cardinal Systems LLC, this software package is written by photogrammetrists for photogrammetrists resulting in a system that is both efficient and easy to use. In addition to comprehensive data compilation and editing tools it offers aero-triangulation, volume calculations and orthophoto processing.

DTM performs all mapping with LCD monitors and the Planar display system. This system provides superior image quality and resolution while at the same time reducing operator fatigue.

Scanning is performed on a Wherli RM-6 Scanner which comes with proprietary dust and scratch removal software. This greatly improves timing and quality of the scans and final orthophoto products delivered to clients.



Aero-triangulation adjustments are performed using AeroSys AT, developed by Dr. Matt Stevens. The bundle adjustment software can be run inside VrOne or independently as a stand alone module.

For further information, please contact Nick Dudley (ndudley@dtm-global.com) or Mike Thompson (mthompson@dtm-global.com) at 604-592-6522 or visit www.dtm-global.com/

Dynamic Aviation Group, Inc.

1402 Airport Road Post Office Box 7 Bridgewater, VA 22812-0007 (540) 828-6070; (540) 828-4031 (fax) sscates@dynamicaviation.com www.dynamicaviation.com

Dynamic Aviation specializes in providing aircraft and aviation



infrastructure to both public sector agencies and commercial organizations with exacting data needs, but lacking aviation expertise. We offer versatile, superior aerial platforms into which existing and emerging technologies can be installed to acquire data of all types. By allowing our customers to allocate their capital to technology and not aircraft, Dynamic Aviation makes it possible for our customers to operate more efficiently.

Our large fleet of specially modified King Airs, coupled with our aviation infrastructure, has enabled Dynamic Aviation to become the international leader in providing aircraft and crew for airborne data acquisition. Applications utilizing our aircraft are nearly unlimited. Our aerial platforms can be deployed to obtain LIDAR, multispectral and hyperspectral data. They may be used for aerial photography, airborne geophysical survey, and air sampling; as well as for EO/IR and synthetic aperture radar scopes of work.

To learn more about Dynamic Aviation and its flight services, please visit the company's website at www.dynamicaviation. com/airborne.htm or telephone Steve Scates at (540) 828-6070 extension 3503.

E. Coyote Enterprises, Inc.

P.O. Box 1119
228 Lee Road
Mineral Wells, TX 76068-1119
(940) 325-0757; (940) 325-0941 (fax)
ecoyote@eastland.net
www.ecoyote.com

E. Coyote Enterprises, Inc. has been a supplier of equipment and services to the photogrammetric and aerial survey profession since 1977. With the adaptability and flexibility of the most successful of animals, the coyote, ECE helps its clients meet the technological and economic challenges that characterize the profession by offering the most suitable choices of cost-efficient equipment. We also provide brokerage service.

Airborne imaging equipment and peripherals are our specialty. In the USA, Mexico, and Canada we now offer the jenaoptronik JAS 150, a second generation multi-spectral aerial digital scanner for remote sensing and photogrammetry, and the photogrammetric processing software suite JenaStereo, available in mid-2006.

We sell and support the IGI CCNS4 and the AEROcontrol option for flight planning and execution and precise positioning, along with the other IGI instrumentation such as LiteMapper lidar system and the medium-format DigiCam digital aerial camera.

We offer the GSM 3000 gyrostabilized mount, which greatly enhances airborne data collection for digital instruments and traditional film cameras.

The LOCKE-On video viewfinder/overlap control system is helping to make photo flights easier and more accurate, at a very reasonable cost, for aerial survey crews around the world.

We are the worldwide authorized support and maintenance facility for all LMK aerial camera systems and have the expertise to service other aerial cameras as well.

EADS Defence and Security Systems, SA

6 rue Dewoitine BP14
78142 Velizy Villacoublay Cedex,
FRANCE
+33 1 34 63 73 50; +33 1 34 63 72 50 (fax)
jacqueline.argence@sysde.eads.net
www.geomatics-eads.net

A European subsidiary of Group EADS, Systems & Defence Electronics S.A. comprises five Operational Units: AIRBORNE SYSTEMS (AS), C31,



INTELLIGENCE SURVEILLANCE RECONNAISSANCE (ISR), NAVAL & GROUND SYSTEMS (N&GS), BUSINESS DEVELOPMENT INTERNATIONAL (BDI).

Main activities:

EADS Systems & Defence Electronics specializes in new electronic technologies, and is a leader in the field of image acquisition and processing systems and their applications, as well as for command & control, observation, surveillance, intelligence and communications systems.

Proposed products:

ASRO-X, SOSTAR-X, and SAR manned airborne systems; HALE, MALE and tactical UAVs.

Satellite or aerial imagery exploitation systems (PEPITE, OCAPI, EVI). Geographic data (PRODIGEO, ATG) and cartographic display (Geogrid) systems.

Multisatellite stations - EAGLE VISION, command, control & exploitation ground stations, and SaSTORE data archiving and dissemination system.

C3I systems for all applications - Air Force, Army, Navy, Joint Services, and logistics from tactical through to strategic levels.

Specialties (Aeronautics and Space):

Multisatellites - SPOT, HELIOS, IRS, Quickbird, Landsat, ERS, Radarsat.

Client references:

CNES, DGA, ESA, EURESTAT, European Union, BWB, Ministry of Research, US POD, ASTRIUM, OHB, Armed Forces Directorate of Materiel.

Client references (other sectors):

Civil Security, Ministries of the Environment, NATO



Eagle Mapping, Ltd.

#201 - 2071 Kingsway Avenue Port Coquitlam, BC V3C 1T2 CANADA (604) 942-5551; (604) 942-5951 (fax) info@eaglemapping.com www.eaglemapping.com

Eagle Mapping is ISO 9001:2000 registered

Eagle Mapping Ltd. provides topographic and orthophoto mapping services across



the world using aerial photography and LIDAR data. Based in Vancouver, Canada and operating since 1985, Eagle provides high quality vector and raster data to the mining, mineral exploration, engineering, forestry and construction sectors.

Eagle Mapping Ltd. makes a strong commitment to quality and customer satisfaction. We use an ISO 9001:2000 registered Quality Management System to conduct our business.

Digital Mapping Services

Aerial Photography and Ground Control

We prepare flight plans and coordinate ground control surveying for the acquisition of new aerial photography. Eagle searches public photographic archives to determine if suitable photography exists for your area of interest.

Scanning

Our Wehrli RM-6 automatic roll feed scanner provides photogrammetric quality high resolution images for input into the mapping process.

Aerial Triangulation (AT)

Aerial triangulation is the process of georeferencing the digital air photos. Common tie points and surveyed ground control points are read on the scanned imagery. A final adjustment of the image data set is made in order to establish the position and orientation of each image at the moment of camera exposure.

Topographic Maps and LIDAR Data

Planimetric and elevation data are compiled in stereo (3D) from the georeferenced imagery to create contours and topographic maps. LIDAR data are processed to generate a topographic surface ready for contour and orthophoto production.

Orthophoto Maps

Scanned imagery is rectified using the DTM or LIDAR data to produce a correctly scaled image with all the distortion from the original photograph removed. The final output is a georeferenced digital image file that can be read like a map. We also plot these images with overlain topographic or planimetric data for presentation purposes or for distribution to your clients or investors.

EarthData

7320 Executive Way Frederick, MD 21704 (301) 948-8550; (301) 963-2064 (fax) mhiatt@earthdata.com www.earthdata.com

The EarthData organization comprises more than 300 professionals working in the United



States and abroad, making it one of the largest geospatial services organizations in the world. Mapping-based acquisition and processing capabilities include both film-based and digital aerial photography, as well as thermal, multispectral, hyperspectral, lidar, and radar data. EarthData's GIS experts provide a full-range of services, including project consulting, geodatabase design, application development, web-based solutions, and spatial analyses.

Using advanced technologies, EarthData offers customers a number of unique services that expand traditional mapping and GIS applications. These include EarthData's exclusive GeoSAR radar mapping system for rapid production of high-resolution DEMs and imagery over large-coverage areas; ISTAR digital image processing for accurate, direct-to-digital base mapping projects with fast turnaround times; and SIMmetry, EarthData's web-based spatial information management system that integrates 2D maps with 3D analysis and modeling capabilities for improved decision-making.

EarthData's latest development project is the Airborne Rapid Imaging for Emergency Support (ARIES) system. Designed to help first responders make the best-possible decisions when faced with the worst-possible conditions, ARIES will use multiple airborne sensors, rapid data downlink technology, and a mobile communications and map production center to disseminate real-time geospatial data to emergency workers during rescue and recovery operations at disaster sites worldwide.

The EarthData organization includes three member companies:

EarthData International

EarthData International maintains five office locations along the Eastern Seaboard that serve government and private-sector customers worldwide. Under ISO9001:2000-certified quality system mandates, EarthData International uses its aircraft, remote sensing equipment, research and development teams, production facilities, and international affiliations to support domestic and international mapping and GIS programs.

Horizons

Horizons provides high-quality aerial data acquisition and photogrammetric mapping services to public- and private-sector customers from two offices located in the Midwest. The company maintains a large aircraft fleet equipped with aerial camera systems, lidar, and other sensors and state-of-the-art production facilities that support data processing for the creation of orthophoto, topographic/planimetric maps, and GIS services.

EarthData Pacifica

EarthData Pacifica provides geospatial mapping services to support a wide range of domestic Chinese and international projects for land and resource management and infrastructure development.



With offices in Vancouver, Canada, and Qinhaungdao, China, Earth-Data Pacifica was formed under a joint-venture agreement with Canadian mapping firm Pacific GeoInfo to pursue contracts in Asia and the Far East and to increase EarthData's mapping production capacity.

Eastern Topographics

Post Office 970, 495 Center Street Wolfeboro, NH 03894-0970 (603) 569-2400; (603) 569-8200 (fax) mail@e-topo.com www.e-topo.com

EASTERN TOPOGRAPHICS



mapping firm based in the Lakes Region Area of New Hampshire that has been providing high quality accurate mapping for engineering and surveying consultants for thirty (30) years. We specialize in the production of high quality, engineering level detail topographic mapping. Our turn around times lead the industry, with projects of 100 acres and less delivered in ten days. Our flight crews have logged several thousand hours of cartographic aerial mapping in the difficult terrain and climatic conditions often encountered in the northeast region. Our stereoplotter operators and mapping technicians are intimately familiar with the topography, ground surface conditions, foliage, and cultural features found in the northeastern United States.

E-TOPO® has extensive experience specific to aerial photography and digital photogrammetric mapping, employing high standards and quality control measures that continue to assure the accuracy of our mapping. All mapping is compiled under the immediate supervision and direction of Photogrammetrists certified by the American Society of Photogrammetry and Remote Sensing. GPS ground control services are also available and are provided by our in-house Licensed Land Surveyors.

Aerial photography is captured with two company owned and one seasonally leased Cessna 206 aircraft that are configured specifically for aerial mapping. Imagery is exposed with WILD RC8 (Universal Aviogon) aerial cameras. E-TOPO also maintains a complete black and white photo lab.

Digital photogrammetric mapping is compiled on six (6) first order analytical KERN DSR15s, each collecting data utilizing KLT/ATLAS & TIN software at individual PC work-stations. Primary collection methodology is Digital Terrain Modeling (DTM) including breaklines and spot elevations. Digital orthophotography is produced utilizing our KLT/Atlas Softcopy station.

E-TOPO® has continued to build an in-house library of stock low altitude (1"=400'-650') aerial photography suitable for accurate two foot (2') contour mapping. This library photography is exposed only during the optimum spring months with high sun angle and complete defoliation. E-TOPO®'s readily available library of stereo imagery covers much of the northeast, including southern Maine, New Hampshire, central & eastern Massachusetts, all of Rhode Island, Connecticut, southeastern and up-state New York, and portions of Vermont and New Jersey.

For more information concerning E-TOPO®, including library coverage and employment opportunities, please visit our web site at www.e-topo.com.

Eastman Kodak Company

343 State St

Rochester, NY 14650-0001 (585) 724-4688; (585) 724-4806 (fax) aerial@kodak.com www.kodak.com/go/aerial

Aerial Imaging Solutions from Kodak



Eastman Kodak Company's

Aerial and Industrial Materials group's solutions span a portfolio of film, chemicals, equipment and services providing innovative imaging solutions to help you take, use and get information from images:

- · Large format color, color infrared, and black & white aerial capture films for reconnaissance, mapping, and environmental monitoring
- · Color and black & white duplicating films for sharing the information
- · Processing chemicals designed specifically for Kodak products
- Expert technical support and customer service around the world to help you get more from your images

We are committed to providing you with the world's latest technologies for today's key applications including: topographical and structural surveys, GIS, mapping, agriculture, environmental protection, photogrammetry, reconnaissance, land management and urban planning.

We're continually developing new products and solutions and evolving our methods of service and support. For more information on our Aerial imaging offering, please visit: www.kodak.com/go/aerial

ESRI Environmental Systems Research Inst, Inc.

380 New York Street Redlands, CA 92373-8100 (909) 793-2853; (909) 793-5953 (fax) info@esri.com www.esri.com

ESRI of Redlands, California, is the world leader in the expanding field of geographic information systems (GIS), with estimated annual revenue of \$427 million.

The privately-held company provides a wide

range of GIS software and related services to clients worldwide through its headquarters, U.S. regional offices,

subsidiary companies overseas, and more than 90 distributors worldwide. Founded in 1969, ESRI's early research and development in cartographic data structure, specialized GIS software tools, and creative applications sets the stage for today's automated mapping revolution.

ESRI's comprehensive product line ranges from desktop GIS to GIS for the enterprise.

· ArcGIS—a scalable family of software comprising a complete geographic information system, built on industry standards, that is rich in functionality and works out of the box. Organizations



deploy the software of ArcGIS— ArcView, ArcEditor, ArcInfo, ArcSDE, and ArcIMS— in a configuration appropriate for their needs.

- ArcIMS—the foundation for distributing GIS data and applications on the Internet.
- ArcPad—provides database access, mapping, GIS, and global positioning system (GPS) integration to users out in the field via handheld and mobile devices.

Software functionality and quality, and full support of clients throughout the process of acquiring and implementing a GIS, place ESRI at the head of the industry. New and substantial software enhancements, support features, training courses, and applications development services are added regularly to the impressive ESRI program, executed by experienced and innovative professional staff using state-of-the-art technology.

ESRI strives to provide a system that will help accomplish tasks faster, easier, and better than by using another system.

EUROSENSE

Nervierstaan 54 B-1780 Wemmel, BELGIUM +32 2 460 7000; +32 2 460 4958 (fax) info.be@eurosense.com www.eurosense.com

EUROSENSE is an international remote sensing group with operational production branches in Belgium, The Netherlands, Germany, France, Hungary, The Czech Republic,



Slovakia and Poland. EUROSENSE employs a staff of more than 200 highly specialized members.

All services offered by EUROSENSE are fully integrated within the group: aerial photography, aerial LIDAR (aerial laser scanning for height measurements), photo interpretation, processing and interpretation of digital satellite images, production of photogrammetric and topographic maps, GIS/LIS and AM/FM database development and consultancy, city and landscape planning, inventory of forests and natural resources, digital orthophotography, cartography, hydrography, environmental studies, and lots of other activities.

EUROSENSE operates a fleet consisting of five twin-engined survey aircraft equipped with a highly precise satellite navigation system and has six photogrammetric Leica RC30 cameras equipped with the complete series of lenses (f=9, 15, 21, 30 cm). Aerial photos are developed using several roller transport developing machines for all types of film (black-and-white, colour and colour infrared positive and negative film). For thermal and multispectral remote sensing data acquisition flights, the Daedalus digital multispectral scanner can be used on board of the aircraft, if required in combination with two Leica RC30 cameras loaded with e.g. colour or colour infrared film, as most of the aircraft of EUROSENSE are provided with 2 or 3 camera and scanner holes. In the field of height measurements EUROSENSE also makes use of aerial LIDAR (aerial laser scanning technology) in order to provide

highly accurate DTM's (Digital Terrain Models) and DEM's (Digital Elevation Models) using a LIDAR or Airborne Laser Scanner (ALS) of LH Systems.

EUROSENSE's photogrammetric equipment comprises more than 13 analytical photogrammetric instruments (a.o. Leica SD 2000, Zeiss P1 and P3), as well as more than 20 digital photogrammetric or softcopy instruments (SOCET SET).

Thanks to the unique EUDICORT® system (EUrosense DIgital Cartographic ORThophoto system), EUROSENSE is a world leader in the production of digital colour, colour infrared and black-and-white orthophotomaps. EUDICORT® allows very precise radiometric and geometric corrections to obtain digital orthophotomaps of the highest quality. Overmore, in 1988 EUROSENSE was the first company worldwide to realize, in a production environment, digital colour orthophotomaps by means of the above mentioned EUDICORT® system (exhibited at the ASPRS Conference in St. Louis and at the ISPRS Conference in Kyoto in 1988).

For the execution of hydrographic surveys, EUROSENSE has developed the BEASAC® (Belfotop Eurosense Acoustic-Sounding Air Cushion platform), a unique system for fast and accurate bathymetric soundings (single beam and multibeam) by means of an air-propellered hovercraft.

Federal Geographic Data Committee

12201 Sunrise Valley Drive MS 590 USGS National Center Reston, VA 20192-0001 (703) 648-4150; (703) 648-5755 (fax) fgdc@fgdc.gov www.fgdc.gov

The Federal Geographic Data Committee (FGDC) is an interagency committee that promotes the coordinated development, use, sharing, and dissemination of geospatial data on a national basis. This nationwide data publishing effort is known



as the National Spatial Data Infrastructure (NSDI). The NSDI is a physical, organizational, and virtual network designed to enable the development and sharing of this nation's digital geographic information resources.

The Office of Management and Budget (OMB) established the FGDC in 1990 and rechartered the committee in its August 2002 revision of Circular A-16, "Coordination of Geographic Information and Related Spatial Data Activities." The FGDC is a 19 member interagency committee composed of representatives from the Executive Office of the President, and Cabinet level and independent Federal agencies. The Secretary of the Department of the Interior chairs the FGDC, with the Deputy Director for Management, Office of Management and Budget (OMB) as Vice-Chair. Numerous stakeholder organizations participate in FGDC activities representing the interests of state and local government, industry, and professional organizations.



Furnas Centrais Eletricas S/A

Rua Real Grandeza 219 SL, 201 B 22293-900 BOTAFOGO, RJ BRAZIL

(no profile submitted)

GE Geospatial Solutions

Photogrammetry Services and Geospatial Data Management 1019 Admiral Boulevard Kansas City, MO 64106 (816) 842-0141; (816) 471-1599 (fax) gsinfo@ge.com www.gepower.com/geospatial

GE's Geospatial Solutions group provides world-class photogrammetric mapping, along with systems and services for location-based asset data management. Clients include civil and environmental engineering firms, government agencies, pipeline operators, and public and investor-owned utilities.



In 2003, GE acquired M.J. Harden Associates, Inc., a leading photogrammetric mapping and GIS technologies firm. GE is expanding M.J. Harden's capabilities by investing in enabling technologies and by integrating GE's global resources. These include Six Sigma quality initiatives, "best practice" sharing, and access to the "Big GE," which provides solutions from multiple GE businesses.

AERIAL IMAGING AND PHOTOGRAMMETRIC MAPPING

The quality and accuracy of GE's digital aerial imagery provides the ideal foundation for engineering-quality mapping projects. GE utilizes the most advanced aerial imaging technology commercially available, the Digital Mapping Camera (DMC®) from Z/I. This high-resolution, multi-spectral imagery, combined with a fully digital mapping operation, yields map products with accuracy and visual clarity well beyond those produced using traditional aerial photography methods. For over 50 years, we have provided high quality mapping databases and photo interpretation services. Our ISO 9001:2000 certified mapping team can help you realize the full potential of your investment in geospatial technology.

FIELD DATA COLLECTION SOLUTIONS

As GIS database utilization expands, the need for field verification and attribute data is also increasing. To extend our photogrammetric mapping capabilities and to support the demand for mobile computing, GE Geospatial Solutions has created a portable, powerful, and easy to use field application, HardenWare FDC™. This rugged, GPS-enabled mobile solution extends your GIS database to the field, allowing users to locate, collect, edit and manage facility and environmental assets. HardenWare FDC is the ideal solution to increase your data accuracy and completeness while saving you both time and money.

GeoEye

21700 Átlantic Boulevard Dulles, VA 20166 (703) 480-7500; (703) 450-9570 (fax) info@geoeye.com www.geoeye.com

GeoEye is the world's largest commercial remote sensing company, delivering the highest-quality, most



accurate imagery to better map, measure, monitor, and manage the world. GeoEye was formed as a result of ORBIMAGE's acquisition of Space Imaging in January 2006. GeoEye owns and operates three earth imaging satellites: IKONOS, OrbView-3, and OrbView-2, and has GeoEye-1 under development. GeoEye has built a fully integrated receiving, processing, and distribution network for delivering high-quality imagery products to customers around in the world.

GeoEye provides image-derived geospatial information and intelligence to commercial businesses and government organizations. GeoEye imagery products serve the growing national and international demand for highly-detailed imagery in applications such as mapping, environmental monitoring, urban planning, resource management, homeland defense, national security, and emergency preparedness.

THE GEOEYE CONSTELLATION

GeoEye-1, slated for launch in Spring 2007, will capture image detail up to 0.41-meters for panchromatic images, and 1.65-meters for multispectral images. GeoEye-1 will collect large areas of up to 700,000 sq. km. per day, and will offer inherent geolocation accuracy of less than 3 meters; the highest of any commercial imaging system ever built.

IKONOS produces 1-meter panchromatic and 4-meter multispectral imagery that can be combined in a variety of ways to accommodate a wide range of high resolution imagery applications.

OrbView-3 offers a full range of both standard and enhanced images derived from 1-meter panchromatic and 4-meter multispectral digital imagery. It also offers stereo-imaging capability, and real-time direct downlinking to international ground stations.

OrbView-2 provides 1-km multispectral imagery that primarily supports the SeaStar Fisheries Information Service with daily fishfinding maps for fishing vessels around the world. In addition, it is used for environmental monitoring purposes and naval operations.

AT-A-GLANCE

Headquarters: Dulles, Virginia

Imagery Archive: World's largest archive with over 255 million sq. km.

Orders and Information: (800) 232-9037



Geographic Resource Solutions

1125 16th St., Suite 213 Arcata, CA 95521 (707) 822-8005; (707) 822-2864 (fax) stumpfk@grsgis.com www.grsgis.com

Geographic Resource Solutions

(GRS) was founded in 1989 to provide superior technical and consulting services to the international GIS and Remote Sensing community.



We at GRS are proud of our continued success in providing GIS and remote sensing services of exceptional quality. Our dedication to the needs of our clients and our technical expertise are demonstrated by the loyalty of our clientele. We are selective about the work we attempt, but we are flexible, innovative and can effectively adapt the unforeseen challenges of GIS projects. Our significant experience with a variety of GIS applications and software enable us to design solutions and ensure the success of our clients' projects.

Our clients include progressive local, state, federal, and private organizations that are involved in a wide variety of disciplines:

- · Forest Management,
- · Wildfire Prevention,
- · Wildland Resource Management,
- · Petroleum.
- · Wildlife Management,
- · Public Utilities,
- · Municipal Planning,
- Transportation,
- · Assessment & Land Records, and
- · Environmental Assessment.

Image Classification

GRS has developed and refined a unique process for developing detailed land cover data that is unparalleled in the industry.

Our unique methods, sensitivity to our clients' needs, and successful project work, combine to make GRS a recognized leader in the commercial image processing community.

Field Data Collection

GRS has designed and developed field data sampling methods and tools that have become widely accepted and used in vegetation assessment.

GIS Consultation

GRS provides expert consultation for design, implementation, and maintenance of complex GIS installations.

GIS Analysis and Modeling

GRS consultants and analysts design and implement complex resource and predictive models for analyzing wildfire hazard, watershed, wildlife habitat, vegetation condition, wildfire-fuels, and land cover.

Data Services

GRS performs advanced technical data services to improve the quality and functionality of our clients' data.

Web GIS Mapping

Many of our clients want to present and serve their spatial data in an intranet or Internet environment. GRS designs interactive GIS web sites using both commercial and open-source development environments such as ArcIMS, GeoMedia WebMap, and Mapserver.

GeoCue Corporation

9668 Madison Blvd., Suite 101 Madison, AL 35758 (256) 461-8289; (256) 461-8249 (fax) info@geocue.com www.geocue.com

GeoCue Corporation is a software development and consulting services company with a single focus—to make our core product, GeoCue, the standard framework of choice for geospatial process management.



We are dedicated to creating tools and techniques for improving geospatially organized processes. Our mission is to move the world of workstation-centric production to enterprise systems. This means that production shops should be able to work on large projects with many technicians without worrying about the minutia of locating data, finding software, tasking technicians and determining which particular set of software programs to execute to produce the desired output product.

We have developed a roadmap that lays out a product strategy that will allow companies engaged in nearly any sort of spatial production operations to migrate to a controlled environment without giving up the years of workflow perfection and dollars of tool investment that they have made in current best practices.

Our relationships with our customers date back over the three decades of the migration of geospatial processing from paper systems to all digital workflows. These relationships are characterized by direct honesty and a commitment to making our customers successful over the long term. Our goal is to establish and maintain mutually profitable relationships with our customers.

Geolas Consulting

Bahnhofstr. 36d D-83677 Reichersbeuern **GERMANY** +49-8041-7939752; +49-8041-7939753 (fax) mailbox01@geolas.com www.geolas.com

GeoLas Consulting is an engineering firm and service provider specialized on Airborne Laser Mapping (LIDAR). With over 14 years



of experience in the development of lidar systems, lidar survey operations, and data processing, we provide first hand expertise and services for this exciting technology, helping our customers to map the world in 3D.



Our background in topographic lidar system development reaches back to the early 1990s when we presented the first airborne imaging lidar in Europe. We have since pursued the design and deployment of advanced lidar hard- and software giving us deep understanding of the technology and operational requirements.

Our services include:

- ·Technology consulting and training
- ·System integration support
- Development of lidar processing software (filtering, feature extraction, data quality enhancement, project management, quality control)
- Development of advanced topographic and bathymetric lidar systems
- Distributor and training for TerraSolid lidar software products Based on our in-depth knowledge of lidar system technology and operations we provide training, project support, and consulting services to our customers to help them make the most of lidar technology, and to avoid common pitfalls.

We team up with industry partners for the development of advanced lidar systems, and innovative post-processing tools.

GRW Aerial Surveys, Inc.

801 Corporate Drive Lexington, KY 40503-5401 (859) 223-3999; (859) 219-9059 (fax) kmeyer@grwinc.com www.grwinc.com

Mapping at the Speed of Light

- GRW Aerial Surveys, Inc. is among the nation's leading providers of photogrammetric mapping services for federal, state, municipal, and



private clients. Established in 1976, we provide highly accurate, cost efficient services, including the following:

- · Aerial Photography, ABGPS, IMU
- · LiDAR
- · GPS Surveying
- · Photogrammetric Mapping
- · DEM/DTM
- · Digital Orthophotography
- · GIS Data Conversion
- · Web-Based GIS
- ·GIS Design and Implementation
- · Internet/Intranet Development

A subsidiary of GRW Engineers, Inc., our company was founded by Mr. G. Reynolds Watkins. Our founder's insistence on technical excellence and close, personal service lives on as the guiding principle at GRW. This dedication to excellence is one of the reasons why clients repeatedly select GRW for additional projects. The quality of our work is further demonstrated in the numerous awards our projects have won, both on national and state levels.

With over 225 professionals, GRW has offices centrally located in Kentucky, Indiana, Ohio, Tennessee and Texas. We have the resources and expertise to ensure the successful delivery of every contract. For more information on how we can assist with your next project, please contact GRW at (800) 432-9537.

Groupe ALTA

607, 6 Åve De L'Aéroport International Jean-Lesage Quebec, QC G2G 2T4 CANADA (418) 667-1913; (418) 266-3114 (Fax) info@groupealta.com www.groupealta.com

Groupe ALTA is a North American leader in the field of data solutions and geospatial information.



It implements and exploits the most advanced technologies and techniques in the industry of data acquisition and processing as well as diffusion. Groupe ALTA's mission is to supply to its customers integrated geospatial solutions and support them in their geomatics implementation process so as to offer lasting solution to their needs.

With a multidisciplinary team of more than 200 professionals and technicians, Groupe ALTA's offer comes into five poles of competence: aerial acquisition, professional services, integration services, software products and technologies and a phototheque.

For the aerial acquisition Groupe ALTA have a modern fleet of 10 airplanes offering flexibility and production capacity and a large range of cameras equipped with different caliber lens of exceptional quality and integrating the latest technologies. They have the largest analogical and digital laboratory in Canada and the only one processing color films.

Groupe ALTA offers complete professional services in the mapping and geomatics field as well as in the specialized field of telecommunication and forestry. To the complete system development services cycle, in harmony and complementary to the system in place, they implement and integrate the geomatics dimension quickly and efficiently.

Groupe ALTA develops the technologies and commercializes them worldwide. Its subsidiary DVP-GS commits to developing powerful photogrametric software and geospatial imagery solutions for the most demanding professionals.

The Groupe ALTA's Geomatheque is the aerial photographs retail sales counter with the largest aerial photographs collection in Quebec, 5 millions photographs in storage, and capacity for digital and analogical enlargement for photographic printing.

HAS Images, Inc.

136 North St. Clair Street; Suite 300 Dayton, OH 45402-1739 (937) 222-3856; (937) 222-2443 (fax) info@hasimages.com www.hasimages.com

HAS Images, Inc. is a veteran-owned small business that provides services to aerial survey companies, engineering and map-



ping firms, environmental consulting firms, government agencies, and other organizations that use aerial and space imagery in their research and design projects.



We are the only aerial photo lab with six Kodak RT aerial film processors, configured to process the new generation of black and white and color aerial films.

In addition to the finest film processing equipment, HAS Images maintains a calibrated Kodak Type 1b sensitometer to provide accurate sensitometric data for all film emulsions.

Our reproduction capabilities include the specialized equipment to make a complete range of conventional products from aerial films. Our digital services include image scanning with geometric precision using a LH Systems DSW 700 and Vexcel VX 4000 image scanners, rectification, mosaicing, and color hard-copy output to 48" x 96" using the Cymbolic Sciences Light Jet 5000 RS large format digital printer. To assure only quality products are delivered we use and sell the HAS Film Cleaning System. This table top unit is designed to clean the emulsion and base in a single pass. An optional static elimination kit can also be purchased.

With our goal to be a one-stop shop, we have become an authorized dealer of Kodak Aerial products. This gives us the ability to fully meet our customer demands.

Having the most advanced laboratory equipment available is important, but it's HAS people who make the difference. They bring professional expertise to evaluating photographic processing systems, equipment calibration and maintenance, photographic reproduction techniques, quality control procedures and effluent management. They understand the technical vocabulary, product applications, and quality assurance demands of the photogrammetric and remote sensing industries.

If you have questions or need additional information about our capabilities, services, film cleaner or Kodak aerial products, just call Gail, Ed, Tiffiny, Ken, or Harry.

HJW GeoSpatial, Inc.

8407 Edgewater Drive
Oakland, CA 94621-1403
(510).638-6122; (510).638-5628 (fax)
mapping@hjw.com
www.hjw.com

Founded in 1949 in the San Francisco Bay Area, HJW GeoSpatial has long been established as a leader in precision photogrammetric mapping. HJW offers a full portfolio



of innovative mapping services, providing high quality geospatial content based on a range of airborne technologies and advanced ground processing. Our certified professionals offer a wealth of experience in Photogrammetric mapping, LiDAR terrain modeling, Orthophotography, Spatial data fusion, and QA/QC Oversight.

Aerial and Satellite Imagery

For decades, HJW has furnished custom and off-the-shelf imagery to a large variety of clients. Our customers include federal, state and local governments, as well as engineers, surveyors, vineyard managers, geologists, planners, and real estate professionals. We also offer imagery collection using he latest digital aerial cameras and airborne GPS/IMU technology.

Photogrammetric Mapping

Photogrammetry and topographic mapping have been the mainstays of HJW since 1949. The company's projects include all aspects of photogrammetry such as planimetric and topographic mapping, analytical aerotriangulation, feature extraction and Digital Terrain Modeling (DTM).

Lidar Services

Using photogrammetry and LiDAR together allows the geospatial professional to leverage the strengths of each data source in order to generate optimal terrain-based products. HJW has experience with state-of-the-art LiDAR processing methodologies and software, and has applied them to quality control procedures for county-wide datasets. Our success with handling LiDAR data has relied heavily on photogrammetric techniques and experience with digital terrain modeling.

Orthophotography

HJW's digital orthophoto production facility has been designed for high capacity and superior quality. Since HJW performs all functions of digital orthophoto processing completely in-house, it is much easier to control quality and to correct for errors when they arise.

QA/QC Oversight

HJW performs all mapping services, providing QA/QC reports for all key steps in the workflow, in order to keep you completely informed and comfortable with the quality of service and product to be delivered. Additionally, we offer QA/QC oversight for existing datasets.

Horizons, Inc.

3600 Jet Drive Rapid City, SD 57703 (605) 343-0280; (605) 343-0305 (fax) sales@horizonsinc.com www.horizonsinc.com

About Horizons: Horizons, Inc., has been providing high-quality photogrammetric mapping ser-



vices since 1968. Based in Rapid City, South Dakota, with an office in Minnesota, Horizons serves public- and private-sector clients in government, mining, oil and gas, and engineering, among other vertical markets. Capabilities include a large aircraft fleet configured for aerial acquisition of imagery, lidar, and other sensors; data processing for the creation of orthophoto, topographic/planimetric maps; and GIS services. (www.horizonsinc.com)



INPHO GmbH

Smaragdweg 1 70174 Stuttgart, GERMANY +49 711 228 810; +49 711 228 8111 (fax) sales@inpho.de www.inpho.de

INPHO is an end-to-end photogrammetric systems provider with more than 1000 users world-wide. IN-PHO's products cover the complete workflow of a photogrammetric



project, including image capture, aerial triangulation, stereo compilation, terrain modeling and orthophoto production. In addition, INPHO offers innovative software solutions for processing digital terrain models, including filtering and editing of LIDAR data.

Since its foundation in 1980 by Prof. Fritz Ackermann, INPHO has gained excellent credit as a provider of first-class software products offering supreme quality and unsurpassed productivity. After turning into a full photogrammetric system supplier in 2000, INPHO has been strengthening its sales activities with distribution partners in numerous countries. With its team of photogrammetric professionals, INPHO offers world-wide leading products and a premium technical support.

Today INPHO's product portfolio covers:

- · Automatic Digital Aerial Triangulation (MATCH-AT)
- · Block Adjustment (inBLOCK)
- ·Stereo Data Collection (Summit Evolution)
- · Automated DTM generation (MATCH-T)
- Stereo DTM/LIDAR editing (DTMaster)
- DTM/LIDAR processing (SCOP++)
- ·Ortho-Rectification (OrthoMaster)
- Mosaicking (OrthoVista)

INPHO's photogrammetric products can be used as flexible standalone tools, which fit into any production workflow, or as a complete, perfectly tuned and integrated photogrammetric system.

Institute for the Applic. of Geospatial Technology (IAGT)

199 Franklin Street, Suite 300 Auburn, NY 13021-3025 (315) 252-8669; (315) 253-7335 (fax) info@iagt.org http://:www.iagt.org

The Institute for the Application of Geospatial Technology (IAGT), located in Auburn, New York on the campus of Cayuga Community College, is a not-for-profit organization dedicated to accelerating the appli-



cation of geospatial information technology (GIT) across government, education, and commercial sectors. IAGT develops custom GIT solutions with clients and partners for a variety of applications, and conducts extensive education and outreach to promote the use of GIT. IAGT leverages a wide variety of geospatial technolo-

gies, including: satellite, aerial and terrestrial remote sensing data; GPS; digital map data; geospatial analyses and modeling; 3D and interactive applications, and Internet mapping services. IAGT is experienced in all aspects of Geographic Information Systems design and development, including complete project planning and implementation—from database design and creation to network deployment. For more information, please visit: www.iagt.org.

Institute for Advanced Education In Geospatial Sciences/Univ of MS

370 Kinard Hall University, MS 38677 (662) 915-3900; (662) 915-3901(fax) iaegs@olemiss.edu geoworkforce.olemiss.edu

IAEGS, originally funded by NASA in 2001 as an educational research center, is housed at The University of Mississippi. IAEGS has developed a remote sensing/GIS curriculum of thirty online courses authored by leading experts within the RS community. In addition to our high quality courses.



IAEGS offers an innovative course delivery system that enables RS/GIS students to take college-level courses from remote sites, thereby entering the geospatial workforce as active participants.

The courses are self paced and are designed for a standard 16-week semester. Students have online access to the course core content with enhancements through various types of media including: flash animations, 3D animations, video, audio, and fully immersive 3D labs. Tools such as: a quiz system, grade book, personal journal, references, and a glossary add to the dynamic nature of this learning environment. Agreements with the major software vendors are in place and allow the students of these courses to use any required vendor software for the approximate cost of a college textbook.

Our courses fit well in the academic, government, and business environment; or may be used for individual self-training. Visit our website to request information on available courses.

As an additional service, we can customize your training requirements into affordable solutions.

Intergraph Corporation

(Z/I Imaging) 230 Business Park Blvd. Madison, AL 35757 (256) 730-1590; (256) 730-6708 (fax) info@intergraph.com www.intergraph.com

Intergraph Corporation (Z/I Imaging) has provided 30 years of imaging innovation for the full



flow line from data acquisition to exploitation to distribution.

Intergraph Corporation offers a comprehensive product line to meet your end-to-end digital photogrammetry needs.



- ·Intergraph is trailblazing the technology in the Imaging Industry with Aerial Photography - Comprehensive Digital Mapping Camera (DMC) system is the industry's most innovative and precise turnkey digital camera system. Intergraph offered the first large format digital aerial framing camera and was the first to receive certification for a large format digital aerial camera from USGS. Intergraph's mission planning system provides comprehensive 2D and 3D photo flight planning and reporting while Z/I In-Flight, our flight management system, streamlines the photo flight operation and improves efficiency. We are helping to lead the data acquisition industry into the digital age:
- Extreme Accuracy in Image output
- Helping you go digital at a lower cost
 - -Higher reliability with Solid State Disk (SSD) virtually unlimited storage capacity by exchanging cartridges in flight.
 - -Lower operating cost with increased flying time, lower weight, power consumption and space in aircraft
 - -Fits in the Cessna 206

· Intergraph continues to offer Integration and automation within the flowline:

- Bridging the path between acquisition and exploitation so that you can deliver even faster with our improved image post processing. Z/I Mission not only allows mission planning and reporting, it also has tools to start post processing blocks of data by graphic, geospatial selection rather than flight line by flight line. Distributed Processing allows image production in seconds, not minutes cutting total processing time down to 1/4 of the time or even less. Automated exploitation processes help to increase productivity by speeding up tasks that are processor intensive, automate tasks where possible, and improve the QA/QC process. The first stage of this has been provided with our new ImageStation PixelQue product
- ·Intergraph continues to enhance the exploitation flowline with its digital photogrammetry products- Intergraph offers a comprehensive line of digital photogrammetry products, including the industry-leading ImageStation powered by multiple Intel processors running Microsoft Windows® operating system. Our ImageStation suite of products offers tools for stand-alone image rectification and automatic mosaicking, photogrammetric data management, digital mensuration, automatic triangulation, stereo display, feature collection, DTM collection and elevation point extraction.
- Intergraph offers innovative Image Distribution and **Management** - Intergraph's innovative TerraShare family of products manages geoimaging data (imagery, DTMs, and digitized raster graphics) from acquisition to exploitation to storage to distribution. Combining TerraShare with our integrated solutions gives you a true connected workflow from mission planning to aerotriangulation to generating orthos to distributing the data throughout the connected enterprise.
- Intergraph offers capabilities for Remote Sensing Intergraph's geographic imaging solutions include image backdrop display and plotting for GIS and CAD vector data, image processing, and advanced imaging products.

·Intergraph is dedicated to providing world class consulting, training and support services - Our mission is to bring our customers best-in-class imaging solutions from acquisition to exploitation to digital distribution with our commitment to long-term, mutually beneficial relationships.

Intermap Technologies, Inc. 8310 South Valley Highway, Suite 400 Englewood, CO 80112-5847 (303) 708-0955; (303) 708-0952 (fax) info@intermap.com www.intermap.com

Products:

Intermap Technologies is in the business of creating and licensing highly accurate digital descriptions of the earth's surface via our proprietary airborne Interferometric Synthetic Aperture Radar (IFSAR) mapping technology. This unique technology enables us to quickly and affordably obtain large, uniform datasets, at night or in cloudy conditions. Our library of elevation data and imagery products, including Digital Surface & Terrain Models (DSMs & DTMs) and Orthorectified Radar & Color Images (ORIs & OCIs), provide precise 3D geometric data that enable a wide range of innovative applications capable of making the world a safer place.

Through our NEXTMap® program, we're proactively collecting complete and accurate national map databases of Europe and the U.S. — something never before undertaken on a commercial basis. Demand for NEXTMap® data is growing as new commercial, government, and consumer applications emerge in the following industries: geographical information systems (GIS), engineering planning, transportation, automotive, navigation, flood, irrigation, environmental management and planning, telecommunications/ wireless network planning, aviation, simulation, and 3D visualization. Internet applications include virtual tours, topographic maps and computer games. NEXTMap® datasets are also used to add interactive intelligence to airborne and satellite imagery.

Headquartered in Denver, Colorado, Intermap employs more than 325 people worldwide, with offices in Calgary, Ottawa, Munich and Jakarta. For more information, visit www.intermap.com.

International Institute for Geo-Information Science and Earth Observation (ITC)

P.O. Box 6 7500 AA Enschede **NETHERLANDS** +31 (0)53 4874444; +31 (0)53 4874400 (fax) msmit@itc.nl

One of mankind's greatest challenges is to achieve an appropriate balance between developing natural resources and maintaining an optimal natural environment. To meet this challenge, we need detailed and reliable geo-information and geo-information management tools.

At the International Institute for Geo-Information Science and Earth Observation (ITC).





knowledge of geo-information management is readily available and is continually being developed and extended. By means of postgraduate education, research and project services, we contribute to capacity building in emerging countries and countries that are economically and/or technologically less advanced. In doing so, considerable attention is paid to the development and application of geographical information systems (GIS) for solving problems. Such problems can range from determining the risks of landslides, mapping forest fires, planning urban infrastructure, and implementing land administration systems, to designing a good wildlife management system or detecting environmental pollution.

The key words characterising our activities are geo-information management, worldwide and innovative. We concentrate on earth observation, the generation of spatial information, and the development of data integration methods. Furthermore, we provide tools that can support the processes of planning and decision making for sustainable development and the alleviation of poverty in emerging economies. Based in Enschede, in the east of the Netherlands, ITC is the largest institute for international higher education in the country.

Research

ITC's research programme concentrates on the application of geoinformation science and earth observation, with the aim of enhancing civil society, food security and water management, planning and management of the multifunctional use of space, natural disaster management and obtaining a greater understanding of global change.

Research projects within this programme are problem-based and output-oriented, have an interdisciplinary and multidisciplinary character, and are embedded in the national, European and worldwide academic networks.

Education

More than 17,000 course participants from over 165 countries have followed courses at ITC since 1950. With 56 years of extensive experience and a dedicated scientific staff with a range of expertise, ITC is one of the world's foremost professional training establishments in the field of geo-information science and earth observation.

Over the years, ITC has developed a wide selection of degree and diploma and certificate courses. These courses are offered in the Netherlands and abroad by ITC itself or by ITC in collaboration with partners in the Netherlands and in and outside Europe.

Six courses are offered in the degree and diploma programmes:

- · Applied Earth Sciences
- Geoinformatics
- · Land Administration
- · Natural Resources Management
- · Urban Planning and Management
- · Water Resources and Environmental Management.

A large variety of courses in the field of geo-information science and earth observation are offered in the short course-, distance education- and refresher programme.

Project services

ITC carries out a number of research and education projects in emerging countries and countries that are economically or technologically less developed. Most of these projects focus on institutional development and capacity building. Projects often strengthen the ties with ITC alumni and their organisations. Facilitating strategic partnerships for the globalisation of education is one of the goals of ITC's project services.

ITRES Research Limited

110 -3553 31st St. N.W. Calgary, Canada T2L 2K7 (403) 250-9944; (403) 250-9916 (fax) info@itres.com

ITRES (1979) provides digital airborne hyperspectral sensor technologies and environmental airborne mapping services. Our



calibrated imaging sensor products include the visible near-infrared CASI-550 and wide array CASI-1500, the hyperspectral thermal infrared TASI and broadband thermal TABI, and the shortwave infrared SASI. Lidar- and Ifsar-compatible, the orthorectified data from these sensors are used to delineate and analyze wetlands and coastlines, map water quality and environmental concerns, as well as for projects in mineral exploration, oil and gas development, forestry mensuration and vegetation delineation, precision farming, and landmine/unexploded ordnance detection. As a sensor developer, ITRES undertakes R&D activities that support our existing map products and furthers the development of new commercial sensor technologies and their use.

ITRES also offers full environmental mapping services using our imaging sensors. High-resolution hyperspectral data are acquired annually across the United States and worldwide for clients including local, state, and federal government agencies, environmental land trusts, utilities, and private commercial companies. Deliverables include orthorectified image maps and analysis-derived information products, the latter which include thematic classifications, custom products, and database information. Our use of aircraft-certified sensor installations and established quality assurance procedures means that field downtime is minimized. Through the close association of its Scientific, Technical, and Applications Groups, ITRES has the technical experience, employee depth, and hardware redundancy to respond quickly should technical problems arise in the field. The Applications Group also regularly conducts ground data collection coincident with its airborne program for the purpose of atmospheric correction or data/product validation. Data processing can be carried out in the field to minimize data turnaround time, or may be performed at ITRES' production facilities.



ITT (was RSI)

Visual Information Solutions 4990 Pearl East Circle Boulder, CO 80301 (303) 786-9900; (303) 786-9909 (fax) info@ittvis.com www.ittvis.com

ITT Visual Information Solutions (formerly RSI) provides integrated software solutions that help scientists, engineers, researchers, and medical professionals turn complex



data into useful information. The company's 150,000 customers use IDL and ENVI to analyze data and imagery and deploy imaging applications. Products are used in a variety of industries, including remote sensing, engineering, earth sciences, aerospace, defense and intelligence, medical imaging, oil and gas exploration and biotechnology.

IDL is a programming platform for technical data analysis, data visualization and application development. Capabilities include image processing, interactive 2D and 3D graphics, object oriented programming, volume visualization, volume reconstruction and rendering. The IDL solution integrates proven mathematical and statistical analysis routines, with a flexible data I/O, a cross-platform GUI toolkit, versatile program linking tools, and the ability to produce cross-platform portable application code. IDL is widely used in the medical, scientific, and research communities, and is recognized across industries as the easy-to-learn and easy-to-use data visualization solution.

ENVI is the premier software solution for quickly, easily, and accurately extracting information from geospatial imagery. ENVI provides the tools imagery analysts and scientists need for every step of the image processing workflow – from reading, preparing, and exploring to analyzing and sharing – all in a familiar, easy-to-use interface. Imagery analysts and scientists choose ENVI's suite of advanced spectral analysis capabilities, including anomaly detection, feature extraction, and image classification. Other key features include automatic registration, orthorectification, terrain analysis, radar analysis and map composition. ENVI can be customized and extended using IDL, and functionality and code is easily integrated with other popular programming languages.

Combined with a host of support services, including training, consulting, and the ITT Infonet, a web-based resource for the IDL and ENVI user community, ITT Visual Information Solutions offers the most complete data visualization, image analysis and image delivery solutions available.

John Deere Agri Services (was GeoVantage)

3 Centennial Drive, Suite 350 Peabody, MA 01960 Tel: (978) 532-1190 info@JohnDeereAgriServices.com www.JohnDeereAgriServices.com

About John Deere Agri Services

John Deere Agri Services leverages cutting-edge technology developed by GeoVantage* to deliver georegistered, orthorectified aerial imagery in full color and near infrared. To meet the unique remote



sensing requirements of forestry, agriculture, urban planning and environmental management, John Deere Agri Services custom flies each project. State-of-the-art sensors, composed of integrated GPS, inertial measurement units and 4-band digital cameras, along with integrated end-to-end workflow software, enable rapid response and worldwide geographic coverage. *Acquired by John Deere Agri Services.

Jolandco, Inc.

500 Menlo Dr., Suite 150 Rocklin, CA 95765 (916) 772-5506; (916) 435-3918 (fax) chris.johnson@jolandco.com www.jolandco.com (no profile submitted)

Kenney Aerial Mapping

1125 N Grand Ave., Bldg. I Phoenix, AZ 85007 (602) 258-6471; (602) 340-1877 (fax) jcahoon@kam-az.com www.kam-az.com

Kenney Aerial Mapping, Inc. has provided professional photogrammetric services since 1963. Our company has been based in Phoe-



nix from its inception and was incorporated in the State of Arizona in 1968. We opened a marketing office in Las Vegas, Nevada in 1989 and added production and flight services there in 1996.

Our staff has demonstrated excellence in all phases of photogrammetry including project design, project management, aerial photography, photo lab services, analytical and GPS assisted aerotriangulation, topographic mapping and digital terrain modeling, digital orthophotography and Geographic Information Systems.

Since inception, the firm has grown to become one of the largest photogrammetric service providers in the Southwestern United States. We now operate with approximately 12,000 square feet of floor space. With ten stereoplotters and image workstations and approximately 40 full time staff members dedicated to photogrammetry, we are uniquely qualified and capable of completing any type of photogrammetric mapping or imaging project.



Leadership in Photogrammetric Technology

We have a long history of being among the first in our entire industry to test and adopt new methods. In the early 1980's we were on a team that developed early versions of AutoCAD based mapping software and were early proponents of digital terrain modeling techniques.

In the early to mid 1990's, we were the first private firm in the southwest to install the newest generation of aerial cameras, soft-copy photogrammetric equipment and a photogrammetric quality scanner for the production of digital orthophotography.

Kenney Aerial Mapping also pioneered the use of Airborne GPS for photo control in Arizona starting in 1996. Since then we have successfully completed numerous projects. These have been used on local, state and federal government contracts in a variety of conditions and our clients have been very pleased with the results.

Our Aeroview image management application (an ArcView extension) is in use by several municipalities and other agencies.

Commitment to the Profession

Our commitment to the photogrammetric discipline is illustrated by our participation in numerous professional conferences every year. We frequently deliver presentations on areas of particular interest to the attendees. Several years ago we started teaching the photogrammetric units for two college survey classes (ASU and Phoenix College) and our aerial photographer has become an assistant professor at ASU's Geography Department.

We currently have four Certified Photogrammetrists (ASPRS) and one Registered Land Surveyor. Several of our people are pursuing their degrees in related fields and the firm frequently sends others to software training schools.

Kenney Aerial Mapping, Inc. is both professionally and financially capable of undertaking and successfully completing large and small projects both domestically and internationally. Our expertise in estimating production requirements allows us to complete projects within our proposed schedule and within our manhour estimate. Our experienced staff, extensive equipment list and experience on numerous projects make us the choice for photogrammetric services.

We are very proud of our reputation, quality employees, financial stability, and our accomplishments in the digital mapping discipline. We are always available for consultations regarding any photogrammetric project.

Keystone Aerial Surveys, Inc.

Northeast Philadelphia Airport Post Office Box #21059 Philadelphia, PA 19114-0559 (215) 677-3119; (215) 464-2889 (fax) info@keystoneaerialsurveys.com www.keystoneaerialsurveys.com

Keystone Aerial Surveys, Inc. specializes in providing quality aerial photography and remote sensing surveys throughout North America.



Our Flight Department provides GPS aerial photography, airborne magnetic data acquisition, and remote sensing, using vari-

ous sensors. KAS makes available to the GIS Community experienced professional crews and high quality equipment: one Vexcel UltraCam large format digital camera, eight Leica RC 30 FMC 6" aerial cameras, two 8.25" aerial cameras; Applanix POS/AVTM IMU System for exterior orientation of imagery; thirteen aerial survey aircraft including a Cessna Conquest II.

Because we can offer so many survey crews, aircraft and the latest camera and GPS navigation equipment, we get maximum benefit from limited weather or sun angle. With Keystone you have increased assurance that your survey will be completed on time. Although our field crews operate all over the country, we have bases in Philadelphia, PA and Benson, AZ.

We have flown millions of survey miles throughout the United States on projects within limited timetables. Over the last four decades, Keystone has evolved and changed, taking advantage of the latest technology. We continue to refine acquisition and processing procedures while maintaining an unchanged commitment to quality aerial imagery.

Our Photo Lab provides custom photo and digital products from our extensive film library. We are equipped with the latest image processing technology from our EPC auto-dodging printer to our four State-of-the-Art Leica high resolution scanners to meet the growing demand for digital images.

We offer quality black and white and color RC contact prints and stereo pairs, film diapositives, high resolution scans, precise photo enlargements on RC paper, and digitally mosaic enlargements.

KLT Associates, Inc.

100 Corporate Place Peabody, MA 01960-3809 978-536-9100; 978-536-9100 (fax) sales@kltassoc.com www.kltassoc.com

ATLAS provides a fully integrated system for collecting, editing, and retrieving geographic information, softcopy stereo data collection, manipulation of TINs (Triangular Irregular networks) and production ortho rectification of aerial, satellite and digital imagery, including the new digital cameras such as ADS40 or DMC. A fully integrated and automated AT (Aerial Triangulation) system is available for even the most difficult mapping projects.



The ATLAS tool suite provides extensive mosaicing capabilities and a powerful photogrammetric tool set.

Today's ATLAS represents the latest generation of KLT Associates' industry standard digital mapping software. Earlier versions of ATLAS include MAPS300 (distributed by KERN Instruments), MAP/CE (available from LEICA AG Switzerland) and EDIT300 (through Carl ZEISS) programs.

ATLAS, which are used worldwide by private photogrammetric companies and government mapping agencies alike. Supporting KLT's own digital softcopy workstation, ATLAS/DSP (Digital Stereo Plotter), as well as a wide range of analog / analytical stereoplot-

CS Sustaining Members

ters, and digitizing tablets for 2-D and 3-D map exploitation. AT-LAS/DSP can also provide a direct interface to CAD systems such as Microstation, where all ATLAS tools are used for orientation and project management, and data collection is within the Microstation environment.

ATLAS was written specifically to handle the problems of digitizing geographic data, interactively editing both graphic and non-graphic attribute information, and then gaining access to the database by attribute codes and ground coordinates for bi-directional data flow. Attribute codes can be maintained bi-directional for map maintenance and map update projects.

Using image correlation routines ATLAS/AT (Aerial Triangulation) and ATLAS/ATM (Automatic Terrain Modeling) ease the burden of operator measured DEMs (Digital Elevation Models) and photo – by – photo tie point and pass point AT measurements.

ATLAS/AT's Interactive point analysis eases the tasks involved with identifying and editing bad or questionable AT points, providing the ability to edit and change point and performing a new adjustment on-the-fly. Extensive math models are provided for the import of satellite sensors.

ATLAS/TIN provides tools for real world terrain modeling. Solids modeling, fly-troughs, and image draping represent some of the functions used in the TIN package for interactive terrain modeling and terrain visualization. ATLAS/TIN is the kernel application for ATLAS/ORTHO.

ATLAS/ORTHO is an extensive set of tools for radiometric, geometric, rectification, and mosaicing of digital imagery. ATLAS/ORTHO is a fully automated process for the production and manipulation of ortho rectified imagery.

Each ATLAS application has an extensive set of BATCH routines to insure and /or build data integrity, reducing the interactive time needed by an operator in any given data set or task.

ATLAS data (vector and/or raster) files are easily converted and/or provided in industry standard formats for use with other CAD, GIS, and mapping systems, like ARC/INFO, AutoCAD, or Microstation.

Kucera International

38133 Western Parkway Willoughby, OH 44094-7589 (440) 975-4230; (440) 975-4238 (fax) map@kucerainternational.com www.kucerainternational.com

Kucera International Inc. is a leading provider of high-quality, cost-effective aerial mapping and related geomatic services to government, industry, commercial entities, institutions, and the professions throughout the U.S. and abroad.

Kucera's in-house capabilities include film-based and digital aerial photography, digital and photographic image



reproduction, airborne and ground-based GPS control surveying, LIDAR and remote sensing, film and map scanning/digitizing, soft-copy and analytical aerotriangulation and stereocompilation, digital terrain and surface modeling, digital orthophotography, digital

planimetric and topographic mapping, cadastral and land use mapping, geographic data conversion, 2D and 3D GIS, utility/infrastructure surveys/inventories, E911 mapping/addressing, volumetric surveys, and civil engineering. Specialty services include TOPVIEW large-scale true orthophotography, ORTHOSCAPE 3D GIS visualization, and ORTHOEXPRESS rapid turnaround, low-cost, large-area digital orthophoto production.

For aerial data acquisition, Kucera operates a fleet of aircraft outfitted with latest-generation aerial camera, multispectral and thermal sensor, LIDAR, and airborne GPS/IMU in-flight georeferencing systems. Kucera's ground data acquisition is accomplished with geodetic and mapping-grade GPS receivers, mobile mapping/GIS systems, and a variety of conventional survey instruments and land and watercraft. Photogrammetry, mapping, and digital imaging are performed on dedicated analytical and digital photogrammetric and image processing systems. For GIS and data conversion, Kucera runs current versions of all major GIS and CAD platforms.

Kucera's staff of 100 includes experts in photogrammetry, surveying, remote sensing, engineering, CAD, GIS, computer science, photography/imaging, geography, forestry, geology, natural resources, planning, construction management, business, communications, marketing, and a variety of related disciplines. The staff includes licensed/certified photogrammetrists, surveyors, engineers, and GIS and computer technicians. The average individual experience level of Kucera's staff is over 15 years.

Kucera is a sustaining corporate member of ASPRS, MAPPS, and URISA and is an authorized ESRI GIS Business Partner.

L-3 Communications Titan Group

Enterprise Geospatial Solutions 4099 SE International Way, Suite 206 Portland, OR 97222-8853 (503) 794-1344; (503) 794-1350 (fax) kurtis.kroll@L-3com.com www.L-3com.com

About L-3 Titan

Requirements for geospatial information, analysis and output continue to weave themselves



more deeply into today's businesses. From simple geospatial data development and map production to complex modeling and analysis applications, geospatial solutions require a blend of technologies to implement. L-3 Titan's GIS professionals, operating throughout the U.S. and internationally, are supporting the integration of GIS with mainstream information systems by focusing a diverse set of capabilities on our customers' needs.

Our teams of GIS technicians, analysts and developers provide innovative solutions allowing you to integrate your mission data with geospatial information or embed spatial technology in your existing systems. L-3 Titan is among the largest geospatial services providers in the world with over 20 years experience putting us solidly in the forefront of the Geospatial Information Technology industry. Our PMI certified Project Management Professionals operate with a quality management system that is registered to ISO 9001:2000.



As organizations across the public and private sector have awakened to the increased productivity and cost-savings provided by GIS, new enterprises are joining long-time customers who rely on L-3 Titan for geospatial solutions.

Offerings

L-3 Titan delivers a comprehensive suite of offerings worldwide. We provide our customers with expert solutions in all the following areas:

- Enterprise Geospatial Information & Services
- · Enterprise Information Management
- · Remote Sensing & Imagery Exploitation
- · Software Engineering and Web Services Development
- · Help Desk Support
- · Network and Enterprise Administration
- · Consulting & Training
- · Systems Engineering
- Telecommunications

L. Robert Kimball & Associates

615 West Highland Avenue Ebensburg, PA 15931-1048 (814) 472-7700; (814) 472-7712 (fax) aande@Irkimball.com

L. Robert Kimball and Associates, Inc. (Kimball) was founded in 1953, and has grown to become one of the country's largest full-service mapping firms. Headquartered in



Ebensburg, PA, the Mapping Sciences Division is staffed with 100 highly skilled professionals providing the following services:

- Aerial Photography We maintain two aircraft and two aerial cameras for photography acquisition. Aircraft and cameras are operated by our own highly experienced crews.
- •Surveying We have adapted state-of-the-art technologies such as GPS, electronic total stations and electronic field books. Our services range from property boundary surveys to horizontal and vertical control/airborne GPS.
- Photo Lab We maintain a full-service photographic laboratory that performs film developing, and diapositive printing, enlargements and photo mosaics.
- Analytical Triangulation Services offered range from producing control photos and diapositives to final adjustment and preparation of the A.T. report.
- Photogrammetric Stereo Compilation We currently use analytical and softcopy stereoplotters for the collection of topographic and planimetric data.
- GIS Conversion Our application development specialists and technicians use ArcInfo and ArcView extensively to develop solutions for our clients.
- Cadastral Mapping Kimball has extensive experience in cadastral map conversion including scanning and vectorizing, digitizing and compiling parcels based on the original deeds and plats.
- Orthophoto Production Digital orthophotos are fully produced in-house including scanning of diapositives or aerial film.
- \cdot E9-1-1/Public Safety Kimball offers extensive experience in all

facets of public safety technology and is capable of providing our clients with expertise in rural addressing, emergency communication system planning, implementation and operation.

Each project, regardless of complexity, is managed by one project manager. This approach provides a single point of for our clients and enables us to build relationships that can ensure a project's success. Kimball also offers quality, professional architectural, engineering and environmental services.

LaFave, White & McGivern, L.S., P.C.

133 Commercial Street Post Office Box 679 Theresa, NY 13691-0679 (315) 628-4414; (315) 628-4529 (fax) emckinney@lafavewhitemcgivern.com www.lwmlspc.com

LaFave, White & McGivern, L.S., P.C. is a professional corporation specializing in land surveying and photogrammetric mapping. The firm's roots extend back to 1946 when founded by Aziel LaFave, Land Surveyor. The present entity was incorporated in 1968. The corporate office is located in Theresa, NY and a branch office in Boonville. NY.

With a staff of 27 mapping and surveying professionals and technicians, including four licensed surveyors and a certified photogrammetrist, the firm provides photogrammetric and GPS services throughout the northeast to a myriad of federal, state and municipal agencies as well as private enterprises. We are extremely proactive in quality while meeting project schedules and goals. Each photogrammetric mapping project is designed to meet the exclusive requirements of the client.

LW&M has continually added new technology, both hardware and software, to enable both survey and mapping to furnish technically advanced services. Digital mapping is compiled with three Zeiss analytical stereo plotters and two Z/I soft copy photogrammetric work stations. Digital orthophotos are differently rectified with the Z/I soft copy system. We make use of airborne GPS on larger and often remote projects. Analytical aerial triangulation is performed in house using both softcopy and conventional analytical methods. We accomplish photo control surveys with six Leica GPS receivers including real time units.

We are a member of ASPRS, Mapps, New York State Association of Professional Land Surveyors and Connecticut Association of Land Surveyors.

Land Data Technologies Inc.

11408 Winterburn Road Edmonton, AB T5S 2Y3 CANADA (780) 451-6477; (780) 451-3419 (fax) Idt@landdatatech.com www.landdatatech.com

Since incorporation in 1972 Land Data Technologies (LDT) has been recognized as an in-



dustry leader in the mapping, land information and geomatics disciplines across Canada, throughout North America and internationally.

CS Sustaining Members

LDT provides multi-disciplinary, technically sophisticated solutions to the design, planning, execution and application phases of spatial information projects for the MAPPING, GIS and AM/FM communities

The integration of leading edge analytic, digital analogue and softcopy photogrammetric data acquisition and digital imaging systems with a multi-platform CAD Mapping environment enables LDT provide the complete range of digital and hardcopy information products to the users of land based information.

In keeping with its corporate philosophy for the on-going application of advanced and innovative technology solutions LDT offers high resolution image and document scanning; digital orthophotography; video mapping; image processing, analysis and compression services as integral components of its MAPPING, GIS, AM/FM and REMOTE SENSING portfolios.

LDT's combination of modern, state-of-the-art equipment, sophisticated digital information management systems, applications software libraries, comprehensive quality assurance programs and a staff of highlyqualified managers, engineers and technicians ensures a professional approach from project conception to final product deployment.

LDT offers innovative and cost effective mapping, GIS and AM/FM products and services to the users of land based information. Fully integrated survey mapping and information management services are provided to government agencies, corporations, consultants and private sector businesses involved in the following sectors:

- Archeology
- Mining
- Archeology
- ·Oil and Gas
- Architecture
- Pipelines
- Construction
- · Real Estate Development
- Engineering
- · Resource Management
- · Environmental Monitoring
- Telecommunications
- · Facilities Management
- $\boldsymbol{\cdot} \text{Transportation}$
- · Federal, Provincial and Municipal Governments
- · Urban and Regional Planning
- · Urban and Rural Management
- · First Nations
- Utilities
- Forestry
- · Waste Management
- Geology
- · Water Resource Management
- · Infrastructure Management
- Wildlife Management

Leica Geosystems

5051 Peachtree Corners Circle Suite 250 Norcross, GA 30092-2500 (770) 776-3400 or (770) 326-9500; (770) 447-0710 (fax) george.southard@leicaus.com www.leica-geosystems.com

Leica Geosystems was first to introduce the Large Format Digital Camera to the market in 2001. With more than 50 Airborne Digital Sensors delivered worldwide, Leica Geosystems has the experience to introduce two new sensor heads



– SH51 and SH52 – for the ADS40 System. Professionals can produce 5 Band co-registered imagery to cover all applications in aerial surveying and airborne remote sensing. Time and costs are saved through simultaneous acquisition of true high-resolution panchromatic, color and colorinfrared digital images. In addition to our continued photogrammetric expertise in Leica Photogrammetry Suite, Leica Geosystems introduces Leica Ortho Accelerator, creating the perfect photogrammetric workflow. Additionally, the new Leica Virtual Explorer, a comprehensive 3D visualization suite, sets the standard in 3D visualization and exploration. For all of your geospatial imaging needs, choose Leica Geosystems – when it has to be right.

LizardTech, Inc.

1008 Western Ave., Suite 200 Seattle, WA 98104-1090 (206) 652-5211; (206) 652-0880 (fax) info@lizardtech.com www.lizardtech.com

Since 1992, LizardTech has delivered state-of-the-art technology for managing and distributing massive, high-reso-



lution digital content. Government and non-government organizations alike have benefited from the company's software products and technologies. LizardTech pioneered MrSID® (Multiresolution Seamless Image Database), a powerful wavelet-based image encoder, viewer, and file format, and sits on the Technical Committee of the Open Geospatial Consortium (OGC) for the purpose of extending the capabilities of JPEG 2000 to geospatial applications, driving cross-platform interoperability and rapid Internet distribution for geospatial imagery. LizardTech's geospatial line of products includes GeoExpress, Express Server and Spatial Express. You can visit us at www.lizardtech.com.



Lockheed Martin Corporation

Geospatial Intel Solutions 3201 Jermantown Solutions Fairfax, VA 22030-2840 (703) 293-5746; (703) 293-4420 (fax) tony.wiley@lmco.com www.lockheedmartin.com

Lockheed Martin is a customer focused, global enterprise principally



engaged in the research, design, development, manufacture and integration of advanced technology systems, products, and services for government and commercial customers.

In the fields of imagery, geospatial information and remote sensing, Lockheed Martin has helped chart the course of vital national systems for more than 30 years. Our reputation for excellent performance stems from our heritage developing intelligence, surveillance, and reconnaissance systems for the Intelligence Community (IC) and Department of Defense (DoD), and as a premier provider of systems and solutions to the National Geospatial-Intelligence Agency (NGA), formerly the National Imagery and Mapping Agency (NIMA).

Lockheed Martin's dedication to customers' success has driven our successful delivery of some of the most technically advanced systems and capabilities in the world. Part of that success is derived from our continued commitment to leveraging world-class technologies and proven processes. In the geospatial intelligence arena, we identify new technologies through strong relationships with industry, universities, labs and strategic partnerships, combined with tens of millions of annual R&D investment dollars focused on meeting current and emerging customer requirements and technical challenges. Transforming technology into innovative solutions comes from proven people and processes, including achievement of CMMI® Level 5 and ISO 9001. But our greatest strength is clearly our people. With thousands of dedicated individuals possessing a wide variety of imagery, geospatial, systems integration, systems engineering and program management skill sets, Lockheed Martin provides formidable expertise and experience to our customers and partners.

LPA Systems, Inc.

290 Woodcliff Drive Fairport, NY 14450 (585) 419-3900; (585) 419-3902 (fax) info@lpa.com www.lpa.com

LPA Systems, Inc., is a Small Business consulting firm based in Rochester,



NY, that specializes in Geospatial Intelligence and Performance Management solutions for DoD and Commercial markets. The company has established a track record of success in the areas of hyperspectral imagery exploitation, geospatial mapping tools, remote sensing, UAV systems integration, and intelligence analyst collaboration. In addition to industry focus, LPA has a strong legacy

of software design and integration, and project leadership skills.

LPA has served as prime contractor on multiple engagements with the Air Force Research Laboratory (AFRL) Information Directorate, in Rome, NY. The company maintains strategic business alliances with PAR Government Systems Corporation (www.partech.com), Rome, NY, and the Rochester Institute of Technology (www.cis.rit.edu/).

Martinez Corporation

2910 Waters Road; Suite 170 Eagan, MN 55121 (651) 686-8424; (651) 686-8389 (fax) martinez@mtzcorp.com www.mtzcorp.com

Since its founding in 1974 by company president Anthony Martinez, C.P., Martinez Corporation (MTZ) has provided our clients with photogrammetric and geospatial services



including digital mapping/digital imaging products and surveying. In response to our clients needs, we now also offer high-definition survey scanning, 3-D visualization, and GIS capabilities.

Servicing private and government sectors, MTZ is able to customize our solutions to our clients' project needs, problems and guidelines. Each project is individualized to provide best value, quality, and accuracy. MTZ provides project initiation - let us help you with what you need; expert project management - we will make sure it gets done correctly; and strict mapping standards - your project will be accurate.

MTZ has an office in St. Paul, MN and Austin, TX.. MTZ is a Certified Minority Owned Business and certified throughout the nation with various governmental agencies as a Minority Business Enterprise (MBE) and/or Disadvantaged Business Enterprise (DBE).

MDA Geospatial Services Inc. (was RADARSAT)

13800 Commerce Parkway Richmond, BC V6V 2J3 CANADA (604) 231-5000; (604) 231-4900 (fax) clientservices@mdacorporation.com www.mdacorporation.com/products/geospatial.shtml

Who We Are

MDA Geospatial Services Inc. provides Earth observation



data, information products, and services from aerial platforms and from the majority of commercially available radar and optical satellites. These satellites include RADARSAT-1, ENVISAT, ERS, LAND-SAT, IKONOS, QuickBird, EROS A, RESOURCESAT-1 and IRS.

What We Offer

Whether you require Earth observation data or information products, MDA will help you meet your business requirements.

Our technical expertise lies in supporting various applications such as:

- · Ice monitoring and mapping for near-real time route mapping
- · Monitoring of illegal fishing and oil dumping



- Airport hazard mapping (feature extraction)
- Urban land classification for green space, commercial and residential zones
- Exploration of marine oil reserves
- ·Terrestrial and maritime security monitoring
- · Wetland mapping
- · Natural resource monitoring and management
- Subsidence mapping
- ·Terrain mapping and 3-dimensional modeling

Our services include:

- · Highly responsive multi-lingual Client Services Department
- · 24-hour emergency support and satellite programming
- · Near-real time data delivery
- · Rapid in-house data processing and product generation
- Training and technology transfer
- · Project management
- Geographic Information System implementation
- · Web-enabled decision support tools

RADARSAT-2: A New Era in SAR

MDA will augment its product and service offerings with the addition of the RADARSAT-2 satellite in 2007. RADARSAT-2 incorporates state-of-the-art technology and will be the first commercial radar satellite to offer multi-polarization, a capability that aids in the discrimination and recognition of surface features and targets. MDA holds exclusive distribution rights and will operate the RADARSAT-2 satellite.

MDA Federal Inc.

6011 Executive Boulevard, Suite 400 Rockville, MD 20852 240) 833-8200;(240) 833-8201(fax) Roger.Mitchell@mdafederal.com www.mdafederal.com

MDA Federal Inc. (formerly Earth Satellite Corporation, founded in 1969) is the U.S.



geospatial services unit of MDA which specializes in the development and application of remote sensing and geographic information technologies (GIS). MDA projects focus on the exploration, sustainable development and management of the Earth's resources and the monitoring of the environment. MDA is a world leader in the utilization of remote sensing data from aircraft and satellites and is the largest commercial provider of enhanced satellite imagery. Based in Rockville, Maryland, MDA's focus is the creation of the image, spatial, and attribute databases on which client agencies rely for terrain and feature mapping, environmental assessment, planning, management, and monitroing in the fields of forestry, agriculture, land use, landcover change, defense/intel applications, mineral and petroleum exploration, weather forecasting and world-wide crop monitoring.

Merrick & Company

2450 South Peoria Street Aurora, CO 80014 (303) 751-0741; (303) 745-0964 (fax) info@merrick.com www.merrick.com/gis

Merrick & Company (an employee-owned company) provides comprehensive, client-



focused land information services, including image acquisition (aerial and satellite), surveying (conventional, GPS, and ABGPS), Light Detection and Ranging (LiDAR), digital photogrammetry, digital ortho processing, precision cadastral mapping, utility network automation, GIS database design, and GIS application programming.

Merrick 's GeoSpatial Solutions Team utilizes leading edge processes and technologies to cost-effectively customize data collection, editing and translation to meet any specifications and GIS format requirement. The company's services frequently involve custom application programming, integrating the most efficient hardware and software systems. Merrick 's strong alliances with numerous software providers enable its Geospatial Solutions Team to create fully customized, short- and long-term data management solutions.

Merrick 's combination of experienced personnel, survey equipment and computer resources enable the precise tailoring of each mapping project's approach. The company's in-house capabilities (GPS surveying, LiDAR, digital cameras, aerial triangulation, stereo compilation, CAD and GIS) allow for a completely integrated team under a single project manager.

Over the years, Merrick has been a leader in the delivery of precision landbase mapping services. The following timeline provides an historical overview of Merrick 's land information capabilities:

- ·Surveying—1955
- · Aerial Photography—1962
- Analog Photogrammetry—1964
- Reproduction Photo Lab/Film Processing—1965
- ·Scribed Topographic Mapping—1969
- Coordinate Geometry—1981
- ·Computerized Legal Descriptions—1981
- · Digital Photogrammetric Data—1983
- Digital Terrain Modeling—1983
- · AutoCAD Mapping—1986
- ·Intergraph/Microstation Data—1986
- · ESRI ArcInfo Databases—1989
- ·Digital Orthophotography—1990
- ·GPS Surveying—1990
- COE Survey and Mapping Projects—1993
- · Airborne GPS-1995
- Softcopy Photogrammetry—1995
- GIS Application Programming—1995
- ·Satellite Imagery Provider—1996
- ·Light Detection and Ranging (LiDAR) —1997
- ·Data Compression Software Provider (CATS) —1998
- ·Inertial Measuring Unit (IMU) 1999
- Internet Mapping Services and Data Hosting 2000
- •Digital Aerial Camera System (DACS™) 2001
- · ADS40 Digital Imagery 2003



Michael Baker Jr., Inc.

4301 Dutch Ridge Road, Box #280 Beaver, PA 15009-9600 (724) 495-7711; (724) 495-4112 (fax) Civil@mbakercorp.com www.mbakercorp.com

Michael Baker Jr., Inc. (Baker) is a wholly owned, subsidiary of the Michael Baker Corporation, headquartered in Pittsburgh, PA. Baker is a full service provider for Geospatial Information Technology (GIT).



ChallengeUs.

The company has assisted hundreds of government agency and public/private industry clients in implementing GIT-from implementation consulting, system selection, application development, database design, landbase development, data collection, source document conversion, and GPS/GIS field mapping and asset inventory with GPS/GIS technology. Baker has over 250 staff dedicated entirely to customers needing our assistance with GIT; we support customers through all phases of the GIT lifecycle.

Baker is also a leader in providing a wide range of land base development services that includes complete project management, project planning, ABGPS/IMU aerial photography, GPS control surveys, analytical aerotriangulation, digital topographic mapping, DTM and digital orthophotography. Baker also provides expertise in the use of LiDAR for cost effective production of digital terrain surfaces. With a wholly owned and operated facility in Mexico City, Baker can also provide our customers with safe and secure services for their cost sensitive projects.

The Michael Baker Corporation (www.mbakercorp.com) provides engineering and energy expertise for public and private sector clients worldwide. Its GIT practice serves customers within the transportation and civil infrastructure, utility, operation and maintenance of oil and gas production facilities, architecture, environmental, and construction management markets. We are a leader in serving the federal, state, and local government sectors. Baker has approximately 4,800 employees in over 42 offices across the United States and internationally.

NavCom Technology, Inc.

A John Deere Company

20780 Madrona Avenue Torrance, CA 90503 (310) 381-2000; (310) 381-2001(fax) sales@navcomtech.com www.navcomtech.com

NavCom Technology, Inc., a John Deere Company, is a leading solution provider to the GIS, survey, offshore, agriculture, machine control, marine, and aerospace markets



needing high performance RTK systems, global decimeter-level DGPS corrections, geodetic quality GPS receivers, wireless communication products and engineering consulting.

NavCom was founded in 1992 by renowned leading technologists of the GPS and wireless communication industries as a

contract engineering firm specializing in precise positioning and wireless communications. In 1999 after successfully completing many contract engineering projects for their largest customer, agricultural giant John Deere, NavCom became a wholly owned subsidiary of Deere & Co. Since that time, NavCom has become a major producer of dual-frequency GPS receivers and established the most accurate, reliable and globally available differential GPS correction service, the StarFire™ Network.

NavCom's StarFire™ Network is the only DGPS system that delivers seamless decimeter positioning accuracy on a worldwide basis (76°N to 76°S) completely independent of regional conditions. Our clients in such diverse markets as Aerial Survey, GIS, Offshore Positioning and Precision Farming to name a few, benefit from the real-time decimeter accuracy and global coverage of StarFire and the compact and easy to use design of our GPS receivers.

NavCom manufactures a full line of ruggedized, high performance, dual frequency GPS, RTK and SBAS receivers, wireless communication systems for mobile data networks, and owns and operates the StarFire Network for John Deere, JPL/NASA and our strategic partners around the globe. As a member of Deere & Co., we are dedicated to its 168 year-old tradition of product integrity, reliability and customer satisfaction. We stand behind our products and services with a commitment to the highest standards of quality and customer support.

New Tech Services, Inc.

P.O. Box 411182 Charlotte, NC 28241 (704) 583-5884; (704) 587-0144 (fax) nts@nts-info.com www.nts-info.com

New Tech Services, Inc. specializes in the Sales, Service and Support of equipment for the Mapping Industry. The company was established in 1991; since then we have been providing quality, personalized service to an increasing list of satisfied customers all over the word.



NTS is selling pre owned equipment for the Mapping Industry, including Plotters, Aerial Cameras and Lab Equipment. All instruments we sell are checked and calibrated by factory-trained technicians. NTS also moves photogrammetric equipment from anywhere to a new location. We have over 20 years of experience in this field. An array of parts and accessories are available to our clients directly or for repair work done by NTS at customer's sites to keep downtime to a minimum.

NTS also sells a powerful flight-planning tool to assist in calculating expenses for the next job, that's accurate and very efficient. TopoFlight will reduce the time to produce a quote by more than half and the result will be professional. The TopoViewer, sold as an option, is used as a permanent record of each image and can be used as an impressive marketing tool for the client archive. The customer's Logo is imprinted on each image. A Demo can be downloaded for free from the WebPages and tested for 5 days. The Software "TopoFlight" is marketed worldwide. NTS has implemented the use of Credit Cards for payments.



If you need more information, please do not hesitate to call, fax or e-mail to our office at anytime. We are here to help and look forward to hear from you. More information is available at www. nts-info.com or www.TopoFlight.com or call 1-704-583-5884. Fax: 1-704-587-0144. "Ahead With Smart Tools"

North West Group

5438-11th Street NE; Suite 212 Calgary, AB T2E 7E9 CANADA (403) 295-0694; (403) 295-2444 (fax) info@nwgeo.com www.nwgeo.com

North West Group is a leading provider of high-quality aerial mapping and related spatial data services throughout Canada, the U.S. and international markets.



NORTH WEST GROUP

Since 1988, innumerable complex projects to various technical specifications have been completed around the world. North West is based at the Calgary International Airport, Calgary, Alberta, Canada.

Services include:

- · Aerial photography (film and digital)
- · Airborne GPS/INS
- · LiDAR acquisition and processing
- Softcopy photogrammetry
- Digital orthophotography
- · Internet based imagery delivery

North West owns and operates five twin engine aircraft specially modified and equipped for aerial photography and LiDAR acquisition, including one LEAR 25D and two Conquest 441 turbo-props. North West uses Leica ADS40 digital imaging sensors, Leica RC30 film cameras, and Leica ALS40/50 series LiDAR sensors.

North West has been ISO certified since 1998 and is a sustaining corporate member of ASPRS and MAPPS. For more information, please our website at www.nwgeo.com

Northrop Grumman Information Technology

4805 Stonecroft Blvd. Chantilly, VA 20151 (703) 633-8300; (703) 449-7636 (fax) stu.shea@northropgrumman.com www.northropgrumman.com

Northrop Grumman IT is a global IT leader with annual revenues above \$4 billion.



Working in 350 locations worldwide, we serve all branches of the armed forces, federal civilian agencies, the national intelligence community, state and local government, and commercial and international clients. Representing some of the world's best technical and scientific minds, our 22,500 professionals deliver full, life-cycle solutions that meet mission, enterprise, and infrastructure needs in: information systems and services; C4ISR; strategic security; engineering and science; training and simulation; base and range operations; and enterprise IT solutions and products.

NSTec, Remote Sensing Laboratory

P. O. Box 98521 - RSL - 09 Las Vegas, NV 89193 (702) 295-8001; (702) 295-8648 (fax) www.bechtelnevada.com

The Remote Sensing Laboratory (RSL) is operated by National Security Technologies LLC (NSTec) for the Nevada Site Office, National Nuclear Security Administration. The laboratory is located at Nellis Air Force Base with operations at Andrews Air Force Base in Maryland. The RSL is a center for advanced technologies, focused on the scientific, technological, and operational disciplines necessary to ensure the success of national security missions. RSL has a worldwide reputation for developing and customizing state-of-the-art instruments and producing standard-setting technologies in remote sensing. Multispectral scanner systems and specially modified aircraft are used in acquiring a wide range of environmental data. RSL has designed and maintains Geographical Information Systems (GIS) databases for the entire USDOE complex.

Observera, Inc.

4451 Brookfield Corporate Dr.; Suite 107 Chantilly, VA 20151-1693 (800) 444-6905; (703) 378-3166 (fax) info@observera.com www.observera.com

Observera, Inc. is a high technology small business that specializes in sophisticated geospatial processing



and analysis technology for a broad spectrum of government and civilian customers. Observera supports our customers with advanced geographic information and image processing services and products. Observera's background in developing advanced imaging technologies for U.S. Government military and intelligence programs is also used to help civilian and commercial customers take advantage of the latest high-quality commercial imaging capabilities. Our experience extends across many imagery types, including photographs, electro-optical, infrared, synthetic aperature radar (SAR), video, polarimetric, and multispectral/hyperspectral data.

Our core technologies include digital photogrammetry, sensor modeling, image registration, spectral processing, feature extraction, classification, terrain model processing, imagery analysis, decision support systems and GIS.

Observera's primary business areas are:

- · Analyzing remotely sensed data in support of military, intelligence, environmental and planning issues.
- · Developing and commercializing advanced image processing algorithms and software.
- · Assisting others in defining remote sensing and image processing requirements and developing image processing systems to support those requirements.

Our Services:

Image Processing

Digital image processing is one of Observera's core technology offerings. Specializing in services that design and develop special



purpose image processing algorithms, thus improving quality and enhancing the utilization of imagery for a wide range of clients

Remote Sensing

Observera is in the forefront of remote sensing technologies utilizing data captured from aircraft and satellite sensors. Our professional remote sensing services include the exploitation and analysis of all modalities of imagery, such as panchromatic, radar, multispectral, hyperspectral, and Interferometric Synthetic Aperture RADAR (IFSAR).

Geographic Information Systems (GIS)

Observera's Geographic Information Systems (GIS) services include data manipulation, conversion, reprojection and integration with RDBMS systems. Timesaving menus and routines can be customized for most popular commercial GIS software suites.

Motion Imagery

Motion imagery or video is a unique cost effective source of information that can be integrated into many exploitation regimes. Observera is in the forefront of this industry, offering identification, characterization, and analysis techniques that exploit many formats of motion imagery. Our expertise has resulted in the RAVEN family of products.

Systems Engineering

Engineering innovative techniques and processes are part of Observera's system engineering services. By tailoring software to specific user requirements, customization can benefit both commercial and government geospatial technology users. Services include the development and integration of GIS/image processing algorithms and software into work environments, the automation of complex imagery tasks to streamline production, and the development of efficient and user-friendly software.

Commercialization

Commercializing government-off-the-shelf (GOTS) technologies for their commercial applicability, as well as evaluating commercial-off-the-shelf (COTS) and emerging technologies applicable to government users and operations complete our unique service offerings. Augmenting our professional geospatial and imagery engineering services, Observera continually monitors commercial technologies applicable to government users.

Our Products:

In addition to our services, Observera is both a developer and value-added reseller of geospatial information products. We continually explore new technologies for incorporation into our commercial product line. The following are our current products

- •RAVEN View
- •ER Mapper
- Defense Format Pack for ER Mapper
- Image Web Server (IWS)
- ASURE

Please call us to discuss cost effective ways to solve all of your remote sensing, image processing, and GIS problems.

Optech Incorporated

300 Interchange Way Vaughan, Ontario Canada L4K 5Z8 (905) 660-0808; (905) 660-0829 (fax) inquiries@optech.ca www.optech.ca

Optech is the world leader in advanced laser-based (lidar) survey instruments, with an extensive global client base. Optech products, based on the company's



core expertise in scanned time-of-flight lidar, offer client-driven solutions in topographic mapping, hydrographic applications, tripod-mounted laser imaging, space-based atmospheric monitors and landing/docking systems, and industrial rangefinders.

The company's core products include:

- ALTM (Airborne Laser Terrain Mapper): The latest in cuttingedge airborne surveying lidar equipment for large or small surveying opportunities. Optech's ALTM products continue to set the global standard for airborne laser terrain mapping. Innovative products such as the ALTM Gemini with its 167 kHz laser rep rate, 100 Hz scan rate, Multipulse technology; the Waveform Digitizer, capable of measuring multiple pulses/ returns; digital camera integration; DASHMap and Zinview software packages – all these make Optech the obvious choice in airborne lidar systems.
- ILRIS-3D (Intelligent Laser Ranging and Imaging System): The ILRIS-3D line of laser scanners provides dynamic scanning at ranges from 3 m to beyond 1,500 m. The ILRIS-3D and ILRIS 36D are complete laser surveying solutions: accurate, eyesafe, rugged, easily portable and deployed by a single operator. The systems feature rapid data collection, metrically accurate data, Class 1 laser operation and exceptional ranging capability. Quick scanning and processing ensure maximum efficiency. ILRIS 36D offers all the capability of ILRIS-3D with the added functionality of a full 360°x 360° field of view.
- SHOALS (Scanning Hydrographic Operational Airborne Lidar Survey): The world's smallest, fastest and most accurate airborne laser bathymeters, the SHOALS systems are complete littoral zone mapping solutions, providing area coverage rates as high as 70 km2 per hour. The systems offer hydrographers a rapid and cost-effective means of surveying shallow coastal or inland waters with depth and measurement accuracy to International Hydrographic Organization (IHO) Order 1. The SHOALS systems also feature topographic mapping and bottom reflectance mapping capability for continuous coverage from shallow waters onto the adjacent shore with a single flight pass.

In business since 1974, Optech is the global market leader in the design and manufacture of state-of-the-art lidar survey systems. Visit our website at www.optech.ca



Optimal Geomatics Inc.

625 West Kent Avenue, Suite 100 Vancouver, BC V6P 6T7 (604) 654-1850; (866) 654-1850; (604) 654-1880 (fax) info@optimalgeo.com www.optimalgeo.com

Optimal Geomatics Inc. specializes in the science and technology of gather-



Map the present. Manage the future

ing, analyzing, interpreting, distributing and using geographic information. Optimal applies the disciplines of surveying, mapping, remote sensing, geographic information systems and GPS to provide solutions for engineering and geospatial professionals.

PAR Government Systems Corporation

314 South Jay Street Rome, New York 13440 (315) 339-0491; (315) 339-4771 (fax) pgsc_marketing@partech.com www.pargovernment.com

PAR Government Systems Corporation (PGSC) is a total imaging and geospa-



tial solutions provider for government and commercial customers. During over 30 years of service, PGSC has earned the reputation for producing high quality technical products ranging from theoretical and experimental studies, to advanced system prototypes and operational systems.

PGSC solutions range from sensor development through information visualization. These solutions include the development and integration of systems supporting imagery collection, geospatial information archive and dissemination, and data analysis. PGSC is actively developing systems and processing algorithms in support of multi-hyperspectral, MTI/SAR radar, and Ground Penetrating Radar (GPR) systems.

PGSC provides expert services in environmental data management, water resources modeling and assessment, Geographic Information Systems (GIS), and remote sensing applications. Diverse application domains include:

- GIS-based flood modeling and mapping
- · Water resources, including water quality modeling and assessment
- Aerial surveys and digital terrain model development
- $\, \cdot \,$ Environmental site characterization and data management
- · Aerial traffic monitoring and modeling
- · Utility database development, integration, and mapping
- · Systems and software engineering

PGSC is a certified ESRI Business Partner. The PGSC Flood*Ware™ product line supports advanced flood plain modeling and mapping methods. PGSC also maintains product lines for distributed image and map archive, automatic imagery registration, computing platform independent imagery viewing with metadata editing, and software interoperability tools for geospatial systems integration.

PAR Government is dedicated to supporting its corps of motivated professional employees, and is committed to providing outstanding customer satisfaction.

PCI Geomatics

50 West Wilmot Street; Suite 200 Richmond Hill, ON L4B 1M5 CANADA (905) 764-0614 x 306; (905) 764-9604 (fax) info@pcigeomatics.com

Founded in 1982, PCI Geomatics is a world-leading, innovative developer of image-centric software for the geospatial industry. Specializing



in remote sensing, digital photogrammetry, spatial analysis, map production and automated production systems, PCI Geomatics' technology turns images into information. Our geospatial solutions enable our customers to find answers to real-world questions using satellite, aerial and other geospatial data.

From the desktop to the enterprise, our technologies are applied to a wide array of challenges, including natural resource monitoring, homeland security and defense, insurance risk assessment, map production, image management, site selection, feature extraction, and education. With our trusted Geomatica® brand, PCI Geomatics provides the image-centric solutions demanded by a large and expanding industry. With over 21,000 Geomatica licenses in 135 countries, PCI is driven to develop leading-edge applications that our customers require to remain productive and competitive.

PCI Geomatics is a privately held Canadian Corporation headquartered in Toronto, with an additional facility in the Ottawa area and coast-to-coast offices in Victoria and Halifax. PCI Geomatics software products and solutions are distributed through a direct sales force, international resellers, and third party partners.

Our Products & Solutions

PCI Geomatics has the proven expertise, people, and solutions to support a wide variety of professions. We continue to build on our reputation of providing our customers with solutions that save real time – and real money. With an emphasis on delivering quality services that exceed customer expectations, PCI Geomatics provides both a comprehensive set of desktop products and a comprehensive range of production-oriented solutions.

Photo Science, Inc.

2670 Wilhite Drive Lexington, KY 40503-3302 (859) 277-8700; (859) 277-8901 (fax) rstarr@photoscience.com www.photoscience.com

Founded in 1974, Photo Science is a full-service geospatial firm, specializing in aerial imag-



ing and data collection/processing, photogrammetric mapping, remote sensing, GIS, and surveying services. Headquartered in Lexington, KY, we employ more than 170 professional and technical personnel in seven offices nationwide devoted exclusively to the geospatial industry. Our team of professionals includes 17 Certified Photogrammetrist, 4 Professional Engineers, 18 Professional Land Surveyors, and 140 cartographers, imagery analysts, GIS specialists, and support personnel.



In a dynamically evolving professional environment, Photo Science deploys leading geospatial technology solutions, focused on process improvement through reinvestment. Our expanded aerial collection capability is now one of the largest in the nation. The company owns and operates both medium- and large-frame digital cameras that include two (2) Z/I Imaging's Digital Mapping Cameras and an Applanix DSS 332 camera. Coupled with our two (2) Leica ALS-50 II LiDAR sensors, conventional film cameras, 41 softcopy photogrammetric workstations, and GPS technology, Photo Science truly delivers integrated mapping solutions with a fully-digital production work flow process. Additionally, Photo Science's GIS consulting, design, and data development professionals support our client's geospatial application requirements.

Photo Science's dependability, accuracy, and superior quality are the benchmarks of the commitment to excellence shared by the entire Photo Science staff. This focus on professional skills, supported by state-of-the-art technology, enables the firm to fulfill the professional needs and requirements of a broad range of clients. We possess the capacity, professional qualifications, and experience needed to support the geo-technical industries. Our services are as follows:

Aerial Imaging and Data Collection

- ·Conventional Aerial Photography
- · Digital Aerial Imaging
- ·LiDAR Terrain Mapping

Photogrammetric Mapping

- Aerotriangulation
- $\hbox{\bf \cdot} Stereocompilation / Feature Extraction}$
- · Digital Orthophotography
- · Photographic Laboratory / Scanning

Geographic Information Systems

- · Data Capture / Conversion
- · Database Design
- · Application Software Development
- Training
- · 3-D Visualization

Remote Sensing

- Thematic Mapping
- Image Processing / Analysis
- Photointerpretation
- · Change Detection

Surveys

- · Airborne GPS / IMU
- •GPS Surveys / Geodetic Control
- · Conventional Surveys

Pictometry International Corp.

100 Town Center Drive, Suite A Rochester, NY 14623-4260 (585) 486-0093; (585) 486-0098 (fax) info@pictometry.com/

Pictometry is a revolutionary new, visual information system that combines digital aerial im-



aging with software that allows end-users to see everywhere, measure anything and plan everything. The company creates libraries of aerial images and geo-spatial information and catalogs them by counties, capturing every square foot of a county from as many as twelve different angles and directions. Pictometry libraries consist of orthogonal images like ordinary aerial imaging. However, over 80% of Pictometry's images are oblique so that features can be easily seen in their entirety. These full color, high resolution images reveal the front, back, and sides of objects of interest rather than just their tops. Within seconds, using a Pictometry image library and the Electronic Field Study™ (EFS) software, a user can literally view and analyze any house, building, intersection, fire hydrant, tree or any feature in the country from their laptop or workstation. The library is recaptured every two years, which allows users to compare and contrast the new images with the old, as well as always having up-to-date data.

Among its many features, Pictometry's Electronic Field StudyTM software enables users to:

- · Measure the length, width, and height of any feature in an image
- Click on any feature in an image and get its geo-coordinates and/or elevation
- Determine the bearing of a road and angles of intersecting roads or physical features
- Automatically calculate perimeter, acreage or square footage of any area or building
- Annotate images with text, lines, circles, etc. for powerful presentations and distribution
- Overlay shape files and other geo-referenced data directly over all images (including obliques)
- Integrate with 3rd party maps, imagery, GIS systems, and software packages
- Create/distribute sub-libraries of images for jurisdictional or geographical specialty use
- Attach an unlimited amount of text, raster, or vector data to EFS which can make Pictometry the centerpiece of your entire geoinformation system

Unlike other more complex systems, Pictometry is specifically designed for applications where easy-to-use visual information can be quickly accessed by a wide range of professionals in diverse industries and agencies. From private business to planning agencies, police, fire and rescue departments, efficiencies are gained, risks are averted, and time and lives can be saved. Call Pictometry today to learn how you can have a comprehensive, easy to use, visual information system that puts your entire town, county, or state at your fingertips.



Pinnacle Mapping Technologies, Inc.

8021 Knue Road, Suite 113 Indianapolis, Indiana 46250 (317) 585-2011; (317) 585-2014 (fax) bmayfield@pinnaclemapping.com www.pinnaclemapping.com

Pinnacle Mapping Technologies, Inc., a woman-owned and veteran-owned small business, provides a broad range of photogrammetric and GIS services to clients in the private and public sectors. Our biggest strength is our people. Nearly half of Pinnacle's staff



has served in senior management at larger mapping companies across the United States. We have seen what works and what does not; what emerging technologies to embrace and which ones to avoid. The net result is a small, dynamic company that can change its production very easily without distraction from corporate objectives or bureaucracy. At Pinnacle, we bring together our large company technical knowledge base within a smaller organization. Our customers feel like they are working with a large company that is in tune with quality assurance and customer satisfaction, they receive first-rate mapping products and they spend only a fraction of the cost a large company would charge for those services.

Pinnacle's staff includes ASPRS Certified Photogrammetrists, GISCI Certified GIS Professionals, Professional Land Surveyors, as well as numerous experienced Stereoplotter Compilers, Digital Orthophoto Technicians, Digital Cartographers, GIS/CAD Analysts and most importantly, a team dedicated to product Quality Assurance. Our staff is committed to customer satisfaction in every regard and to delivering high quality, easy-to-use geospatial data products.

Services:

- Aerial Photography (Digital and Frame)
- · LiDAR Acquisition & Processing
- Mapping-related Geodetic Survey Services
- Film Scanning & Aerial Triangulation
- $\hbox{\bf \cdot} Topographic \ and \ Planimetric \ Feature \ Extraction$
- · Digital Orthophotography
- ·GIS & CAD Data Modeling
- · GeoDatabase Design and Migration
- ·GIS Implementation Planning
- · Web-GIS Application Development & Implementation

Pixxures, Inc.

15000 W. 64th Avenue Arvada, CO 80007 (303) 302-8600; (303) 302-8601(fax) info@pixxures.com www.pixxures.com

Pixxures, Inc., located in Arvada, Colorado, is a total imagery solutions firm that provides



services for photogrammetric companies as well as end users. We have developed a state-of-the-art processing facility and have completely re-engineered our operation to focus on process-

ing and back-end customization. Pixxures has also improved the delivery and enhanced the usability of georeferenced data through our Web Mapping Services tools. Pixxures makes georeferenced data more usable and affordable, and continues to develop new technologies to increase quality and efficiency.

POB Magazine

2401 W. Big Beaver Rd. Suite 700 Troy, MI 48084 (248) 362-3700 tierose@bnpmedia.com www.pobonline.com (no profile submitted)

QCoherent Software LLC

1880 Office Club Pointe Colorado Springs, CO 80920-5002 (719) 386-6900; (719) 272-8051 (fax) thaskell@qcoherent.com www.qcoherent.com

QCoherent Software is the innovative provider of high-capacity, integrated Limitless LIDAR™ software tools. We are a company whose founders have a wide array of expertise with LIDAR and the mapping



sciences. Our extensive knowledge of LIDAR and GIS software has initially been focused on the need for an ESRI extension for viewing and analyzing LIDAR data. These efforts culminated in the development of LP360 which has been exceptionally well received. The success of LP360 confirms that QCoherent Software's mission of providing powerful LIDAR software targeted at day-to-day operations is "spot-on".

Our Mission

Our mission at QCoherent Software is to develop LIDAR software that enables users of LIDAR data to easily and efficiently access and interface point cloud data with day-to-day operations.

LP360 benefits and features:

- Virtually limitless LAS data architecture (load thousands of LAS files into ArcGIS without encountering performance issues)
- · Integrated extension for ArcMap/ArcCatalog
- Requires only a standard ArcView license
- · Creates a LIDAR data layer in ArcMap
- · ArcMap-enabled LIDAR layer properties
- · Specialized viewing controls and filters tailored for LIDAR data
- · Optimized 3D/profile viewer
- •Extensive import and export functionality including crosssection, slope, aspect and hillshading
- · End-user focused with easy-to-use controls
- ·GIS Fusion blends imagery or other data layers with LIDAR
- ASCII to LAS import wizard (Merge other ASCII data with LIDAR Sonar, photogrammetric DEM, etc.)
- · QA/QC Tools (including RMSE wizard)
- •GIS Fusion™



- Dynamic on the fly TINing in LP360 3D viewer and ArcGIS data window
- ·On the fly contour interpolation
- · Filter by elevation/ elevation masking
- · LAS statistics/access LAS header information
- ·LAS Arctoolbox tools (reprojection, scale, and shift)
- Tripod/ground based LIDAR Integrator
- SILC (Spectral Imagery LIDAR Composite) colorization LAS display
- · LP360 Classify (module available early 2007)
- · Programmable LPObjects

Radman Aerial Surveys

6220 24th Street Sacramento, California 95822 (916) 391-1651; (916)391-6537 (fax) Radaerial@aol.com

Radman Aerial Surveys, a certified small business and certified woman-owned mapping firm, is celebrating its twentieth year anniversary.

Radman Aerial Surveys photogrammetric services including aerial photography, aerotriangulation, digital topographic and planimetric mapping, film scanning and digital orthophotography using DTM/DEM data or autocorrelation procedures.

We specialize in high accuracy design scale mapping using analytical plotters for highways, electrical transmission lines, gas, water and sewer lines, land development projects, landfills, wastewater treatment plants, prisons and ALTA surveys. Softcopy plotters are used for the generation of orthophotography products.

Our facility located at Sacramento's Executive Airport host our two Cessna 206 turbo-charged aircraft equipped with state of the art calibrated forward motion compensation cameras. We maintain a traditional photographic laboratory and state of the art scanning equipment.

Radman's ability to provide full service, in-house capability, using our own photogrammetrist, pilots, aerial photographers and support staff to execute its mapping services assures our clients excellent quality control and timely completion of projects.

Aerial photography and photogrammetric products are offered in a wide variety of digital and conventional formats to meet your requirements. We are your complete mapping provider. Whether your project is large or small our project managers can help find the right solution for your needs.

Reed Business - Geo

100 Tuscanny Drive, Suite B-1 Frederick, MD 21702-5958 (301) 682-6101; (301) 682-6105 (fax) neil@reedbusiness-geo.com www.reedbusiness-geo.com

Professional Surveyor Magazine, with a circulation of approximately 42,500 per issue, addresses the information needs of geomatics professionals. Published twelve times a year, Professional Surveyor Magazine covers topics ranging from surveying and mapping to photogrammetry and remote sensing. In addition to print advertising, we offer comprehensive business-to-business marketing

services to enhance your advertising campaign. A combination of these services can help you strengthen your market position, increase your market share, announce new products, improve company and product recognition, and find new buyers or personnel. For instance, many issues include an independent product review. Whether it is hardware or software, our experienced reviewers will evaluate your product, pointing out features and special enhancements in an objective manner. Product reviews and any other feature articles can be reprinted to complement your trade show brochures or dealer literature.

Additionally we present a SourceBook each year. The Source-Book contains free product listings in many different categories. The product listing information is completely controlled by you via our Internet online submission. Equally important are press releases for announcements or introductions, which we publish in the ""Products, People, Places"" (PPP) section of the magazine. This section is also free of charge and leads generated by your product announcement will be forwarded to you directly.

Many of our advertisers find our "WebConnect" section very useful. In WebConnect we place your website screen capture with the Web address listed underneath. This is a golden opportunity to drive readers to your home page. Or reach an even bigger and international market by advertising directly on our www.reedbusiness-geo.com

Riegl USA, Inc.

7035 Grand National Drive Suite 100 Orlando, FL 32819 (407) 248-9927; (407) 248-2636 (fax) info@rieglusa.com www.rieglusa.com

RIEGL's 3D terrestrial laser scanner business is founded on the company's 25-year heritage in research, development and



manufacture of time-of-flight-based optical radar systems. In addition to 3D scanners, RIEGL offers a wide range of single-point laser measurement devices including pulsed semiconductor laser rangefinders, distance, level, and peripheral positioning equipment. Its products are used for ground-based and airborne survey, industrial process control, altimetry and aerospace applications. RIEGL's many different products with a wide array of performance characteristics serve as a platform for continuing innovation in its terrestrial 3D laser scanning business, enabling it to launch multiple new products more quickly than would otherwise be possible. RIEGL entered the 3D terrestrial laser scanning market in 1998 with the Z210 scanner, targeted primarily at mining and industrial applications, and in 2002 expanded its product line with two new scanners. Today RIEGL's 3D laser scanners are winning recognition as effective tools for capturing transportation, civil infrastructure and other large-scale assets, and for ruggedness and reliability under demanding environmental conditions.



Robinson Aerial Survey, Inc. (RAS)

One Edgeview Drive Hackettstown, NJ 07840-4003 (908) 813-3900; (908) 813-3967 (fax) lewism@robinsonaerial.com; lutzk@robinsonaerial.com www.robinsonaerial.com

Robinson Aerial Surveys, Inc., (RAS) has been providing a comprehensive range of aerial photography and photogrammetric base mapping services since 1936. RAS has



its own photographic laboratory, digital and analytical mapping systems, and CAD workstations making it a fully integrated mapping facility.

RAS has significant experience in meeting our clients' needs in a full range of aerial photography and mapping applications. Our clients include land surveyors, engineers, developers, government agencies, planners, attorneys, and corporations of all sizes and interests.

Project applications include:

- · Highway and rail design and construction
- · Residential and commercial land development
- · Flood plain definition
- · Environmental / historical studies
- ·Construction progress mapping
- ·GIS base mapping
- · Development / Feasibility mapping

Experience Combined with a Wide Range of Applications

Robinson Aerial Surveys has a dedicated team of Certified Photogrammetrists, Stereo Compilers, CAD Specialists, Photo Lab Technicians and Licensed Land Surveyors. All of our professional and senior technical staff has between 15 to 30 years of experience in the photogrammetry profession.

RAS provides the following services:

- Aerial photography and Low Altitude Mapping Photography (LAMP)
- · Digital photogrammetric mapping
- · Aerial triangulation
- · GIS Base Mapping
- Photographic lab services, scaled enlargements, historical photo archives
- ·CAD production in Microstation and AutoCAD platforms
- · Digital Terrain Model (DTM) development
- Digital Orthophotography
- Scanning services

Client satisfaction is the driving force behind our efforts. It is our mission to provide innovative and cost effective solutions to our clients. Our commitment to creating accurate mapping products delivered on schedule and within budget has been the foundation of our success for over 70 years.

Rolta International, Inc

Rolta Center 5865 North Point Parkway Alpharetta, GA 30022 (678) 942 5000; (678) 942 5001 (fax) gis@rolta.com www.rolta.com

Rolta has been providing mapping data conversion services for more than a decade and is recognized as a premier GIS data conversion services provider. We have an exceptionally qualified staff, supervised by experienced managers, working on state-of-the-art GIS workstations. Rolta can handle projects of extremely large size for parcel mapping, photogrammetry, orthophotos, and GIS data



conversion. We have substantial capacity, with more than 1500 workstations and over 2500 technically trained and experienced staff. These extensive resources of manpower, equipment, and experience help us tackle a wide range of projects and keep them on schedule.

With conversion experience in most commercial GIS software packages and in-house knowledge utilized for such large projects, Rolta is the ideal choice for GIS database design, translation or re-projection services.

Rolta has the knowledge and experience to assemble cadastral maps to comply with local/national standards of the client, utilizing a variety of coordinate systems, survey systems, and property information records. Rolta has converted over one million parcels, using digital conversion of new tax parcel/orthophoto manuscripts into a topologically structured GIS format, reconciling and updating existing computerized county land records. Rolta has the skills and experience that are needed to get your cadastral mapping project done right the first time.

Rolta's experienced and qualified GIS staff is available to clients for onsite assignments, in any part of the world. These services may include support during a pre/post conversion phase, maintaining day-to-day GIS operations, updating a GIS database, managing networks, disaster recovery, providing e-Security & remote network management services.

ROLTA SERVICES:

- Aerotriangulation
- Planimetry
- · Digital Terrain/Elevation Models
- ·LIDAR data editing
- Digital Orthophotography
- · Image Analysis/Interpretation
- · Cadastral/Parcel Mapping
- · Electronic Navigational Charts (ENC)
- · GIS database design and development
- ·Map creation, updating and finishing
- ·Data conversion and format translation
- Onsite project support



Sanborn

1935 Jamboree Drive, Suite 100 Colorado Springs, CO 80920 (719) 593-0093; (719) 528-5093 (fax) information@sanborn.com www.sanborn.com

About Sanborn

With a rich tradition of mapping dating back to 1866, Sanborn offers end-to-end geospatial solutions backed by the latest in technology



and superior customer support. The company's combined product and service offerings include consulting and off-the-shelf products; analog, digital and LiDAR data acquisition; photogrammetric mapping, remote sensing solutions, and data conversion. Sanborn offers product solutions for government and commercial customers. A nationally recognized company, Sanborn has multiple offices in the United States

The Sanborn Tradition

Sanborn first gained recognition for its richly detailed fire insurance maps—maps that are so full of valuable information that they are still widely used today. We've mapped approximately 12,000 communities across the United States and have archived over one million Sanborn Maps $^{\text{TM}}$.

Mapping the Future of Geospatial Solutions

We continue to set the standard for industry excellence. Today, the Sanborn name is synonymous with high quality geospatial products and services. Our longevity is attributable to our ability to offer focused product and service solutions to many markets and customer types.

Knowledge and Experience

At the core of our business is our team of dedicated, accredited professionals—experts with proven industry success. For every service and product we offer, we have a team with the necessary experience to ensure the best result.

Customer Service

Every Sanborn product and service is designed and managed with the customer in mind. Our certified project managers give each assignment the utmost in individual attention and expert supervision. In addition, Sanborn customers are involved in the ongoing project management process with real-time, on-line project tracking. Because of this customer-oriented focus, Sanborn is a dominant force in the mapping industry.

Science Applications International Corporation

Space & Geospatial Intelligence Business Unit Geospatial Technologies Operation 14668 Lee Road Chantilly, VA 20151 JAMES.C.MCGLONE@saic.com

Founded by J. Robert Beyster, Ph.D., and a small group of scientists in 1969, Science Applications International Corporation (SAIC), a Fortune 500® company, and its subsidiaries



now have more than 44,000 employees with offices in over 150 cities worldwide.

We are a leading provider of scientific, engineering, systems integration and technical services and products to all branches of the U.S. military, agencies of the U.S. Department of Defense (DoD), the intelligence community, the U.S. Department of Homeland Security (DHS) and other U.S. Government civil agencies, as well as to customers in selected commercial markets. Our customers seek our domain expertise to solve complex technical challenges requiring innovative solutions for mission-critical functions in such areas as national security, intelligence and homeland defense. Increasing demand for our services and products is driven by priorities including the ongoing global war on terror and the transformation of the U.S. military.

We offer a broad range of services and products to address our customers' most complex and critical technology-related needs. These services include the following:

Defense Transformation - We develop leading-edge concepts, technologies and systems to solve complex challenges facing the U.S. military and its allies, helping them transform the way they fight.

Intelligence - We develop solutions to help the U.S. defense, intelligence and homeland security communities build an integrated intelligence picture, allowing them to be more agile and dynamic in challenging environments and produce actionable intelligence.

Homeland Security and Defense - We develop technical solutions and provide systems integration and mission-critical support services to help federal, state, local and foreign governments and private-sector customers protect the United States and allied homelands.

Logistics and Product Support - We provide logistics and product support solutions to enhance the readiness and operational capability of U.S. military personnel and weapon and support systems.

Systems Engineering and Integration - We provide systems engineering and integration solutions to help our customers design, manage and protect complex IT networks and infrastructure.

Research and Development - As one of the largest science and technology contractors to the U.S. Government, we conduct leading-edge research and development of new technologies with applications in areas such as national security, intelligence and life sciences.

Commercial Services - We help our customers become more competitive, offering technology-driven consulting, systems



integration and outsourcing services and products in selected commercial markets, currently IT support for oil and gas exploration and production, applications and IT infrastructure management for utilities and data lifecycle management for pharmaceuticals.

The Sidwell Company

675 Sidwell Court St. Charles, IL 60174-3492 (630) 549-1000; (630) 549-1111 (fax) info@sidwellco.com www.sidwellco.com

Sidwell is an employee-owned firm specializing in GIS planning, design and implementation services; aerial photography; software development; data conversion and cadastral database development; and photogrammetric services including topographic, planimetric and digital orthophoto mapping. GIS and database development services offered by Sidwell support a variety of applications including real estate assessment,



public works, civil engineering, and emergency response dispatch. In addition, Sidwell is an authorized dealer of Magellan Professional GPS products. Sidwell serves clients nationally, and is an ESRI Business Partner.

Since its founding in 1927, Sidwell has built a tradition of providing mapping and GIS solutions to clients in local government and private industry. To date, Sidwell has completed more than 150 comprehensive cadastral and GIS mapping projects encompassing more than 7 million parcels. For more than 40 years Sidwell has offered photogrammetric mapping services, and has performed thousands of photogrammetric mapping projects, including those for small development sites, municipalities, counties and large federal land projects.

Sidwell's photogrammetry department offers aerial photography with Airborne GPS and topographic mapping services for applications including engineering design, site planning, and storm water management; and its digital orthophoto development services can provide a flexible, variable-scale digital photo base to support a range of mapping applications. The company's team of photogrammetric specialists includes numerous Certified Photogrammetrists and personnel with direct experience in stereocompilation of large-scale mapping projects, analytical aerial triangulation, digital terrain model data collection, volumetric inventories and orthophotography. For acquisition and development of aerial photography, Sidwell maintains its own flight department featuring survey aircraft and various precision aerial cameras, as well as in-house photographic laboratory facilities.

As a dealer of Magellan Professional products, Sidwell can provide clients with full range of professional GPS solutions which include both GIS mapping and survey grade receivers.

Spatial Data Consultants, Inc.

1008 Hutton Lane, Suite 109 High Point, NC 27262 (336) 841-1247; (336) 841-1248 (fax) sschall@spatialdc.com www.spatialdc.com

Spatial Data Consultants, Inc. (SDC), a 100% Woman Owned Business Enterprise (WOBE), is based in High Point, NC and is a full service professional organization specializing in offering a broad variety of photogrammetric, surveying, cadastral,



image based mapping, CAD and GIS related services. Founded in 1996, SDC was established with the goal of satisfying the unique and specific requirements of each potential client, stressing not only quality in planning and products, but sound management and consulting.

SDC, Inc., is strongly committed to providing quality photogrammetry and other related services and has over 150 years a combined individual experience with qualified personnel having the necessary credentials, professional certifications and registrations, experience, training and education needed to provide the services required. Since our incorporation in 1996, SDC, Inc., has earned a reputation based on our experience in conventional large and small scale photogrammetric production in support of engineering design, facilities management, and regional planning. This is supported by our extensive investment in state of the art hardware and software solutions used to provide our client base with data of the highest accuracy and integrity. We strive to continue to maintain a current or leading edge level of knowledge of our industry practices and techniques by promoting continuing education and training programs. Such attention to our project team members, equipment and practices enables SDC, Inc., to successfully manage large complex projects, while still providing intimate and personal service to each of our clients.

Speck SpatialTech Limited

9-1-125/3 5th Floor - Siddharth Plaza Sarojini Devi Road SECUNDERABAD 500003, INDIA 491-40-55316070; 491-40-55316075 (fax) chandrasekhar.n@speckspatialtech.com www.speckspatialtech.com (no profile submitted)

Stewart Geo Technologies, Inc.

17361 Armstrong Avenue Irvine, CA 92614 (949) 784-4100; (949) 784-4101 (fax) SGT@stewart.com www.stewartgeotech.com

Stewart Geo Technologies, Inc. (SGT) is a professional services organization dedicated to providing geospatial solutions



to agencies and companies engaged in the design, construction and management of public works, infrastructure systems, and the management of natural resources. Structured and equipped to



accommodate time-critical and technically demanding projects, SGT supports the missions of its clientele with a broad range of geospatial technologies that encompass photogrammetry, remote sensing, geographic information systems and Internet services.

Operating from offices in Irvine, CA; San Antonio, TX and Phoenix, AZ, Stewart Geo Technologies' Mapping Services Division has extensive experience and resources in the following service areas:

- · Acquisition of Aerial and Space Imagery
- · Airborne GPS control
- Acquisition and Processing of Remotely-Sensed Terrain Data (LIDAR/IFSAR)
- · Digital Aerotriangulation
- · Photogrammetric Extraction of Terrain & Planimetric Data Sets
- · Digital Orthophotography and Image Processing
- · Precision Photogrammetric Scanning & Photo Lab Services
- CADD and Geographic Information Systems Services

SGT belongs to the "Fortune 1000" Stewart Information Services Corporation (STC-NYSE) family of companies. Stewart Information Services Corporation has over 7,000 affiliate offices and annual revenues of approximately \$1.8 Billion.

Surdex Corporation

520 Spirit of St. Louis Boulevard Chesterfield, MO 63005-1002 (636) 532-3427; (636) 537-9638 (fax) info@surdex.com www.surdex.com

Surdex Corporation has provided geospatial mapping and GIS services since 1954 across the entire United States. Our experienced staff includes numerous individuals with advanced degrees, professional engineers, registered land surveyors, and Certified Photogrammetrists. Surdex also has a field office in Houston, Texas.



Aerial Acquisition – We own, operate, inspect, and fully maintain six aircraft, providing acquisition at altitudes from a few hundred feet to up to 35,000 feet. Aircraft are equipped with dual-frequency ABGPS receivers and IMU instruments.

Imagery Acquisition – Our two Intergraph Digital Modular Cameras (DMC) provide multispectral digital image acquisition at 12 bits/pixel resolution. Our two Zeiss and three Leica cameras provide aerial photography.

Aerial LiDAR Acquisition – Our two systems, including a Leica dual-pulse ALS-50, provide rapid and accurate generation of digital elevation data. Data is processed using proprietary and commercial software products.

Film Scanning – Three precision Leica DSW700 image scanners provide a capacity of over 100,000 exposures a year.

Image Processing – Custom-developed software ensures the highest possible image quality, by characterizing imagery at the beginning of the processing chain. Imagery products include color, panchromatic, color infrared, and/or 4–band format at 8 or 12 bits/pixel resolution. Format options include GeoTIFF, TIFF/TFW, JPEG200, and MrSID.

Aerial Triangulation – Aerial triangulation is performed in a soft-copy environment using Intergraph's ISAT software, augmented with custom-developed software to provide accurate and reliable results.

Planimetric and Topographic Mapping – Stereo compilation and finishing of planimetric and topographic mapping at any scale is performed on analytical plotters and softcopy photogrammetric workstations.

Digital Orthophotos – We produce digital orthophotos at any resolution using custom-developed software within a distributed processing environment for maximum throughput.

GIS Services – GIS consulting, applications development, conversion, and production services. Surdex is an ESRI Business partner, and offers enterprise GIS solution services from design and implementation.

Surveying and Mapping (SAM), Inc.

5508 W Highway 290 Bldg B Austin, TX 78735-8832 (512) 447-0575; (512) 326-3029 (fax) sam@saminc.biz www.saminc.biz

Surveying And Mapping (SAM), Inc. is a full service Photogrammetry, Land Surveying, and Subsurface Utility Engineering firm estab-



lished in 1994. Our staff of over 150 professionals and technicians includes Registered Professional Land Surveyors, Professional Engineers, and Certified Photogrammetrists. Our dedication to quality and value is the foundation of our growth. SAM, Inc. has offices in Austin, Dallas and Houston, Texas.

Photogrammetric Consulting services include ground control, flight planning and execution, image scanning, digital aerial triangulation, planimetric and topographic mapping, DTM, DEM, and the production of digital orthophotography. Airborne GPS and ABGPS/IMU controlled photography are available, along with LiDAR data capture and processing services. Photogrammetric map compilation is exclusively performed using digital photogrammetric workstations. All digital products can be delivered in specified CAD or Geographic Information System formats to meet project requirements, including AutoCAD, MicroStation, and ArcGIS.

Professional Land Surveying services include 37 fully integrated CAD Stations equipped with the latest software applications. Global Positioning System (GPS) services are provided utilizing 27 dual frequency receivers with static and real-time kinematic techniques for GPS surveys. The land surveying operation fields up to 24 fully equipped field crews. Each survey crew is equipped with a Leica TCRA1103plus Robotic Total Station with the Allegro CE hand-held data collector for digital data collection in the field. Direct input into all of our CAD and coordinate geometry software minimizes the error potential of manual processes.

Subsurface Utility Engineering services use geophysical sensing equipment for identifying, designating, locating and mapping existing and abandoned utility infrastructure. SUE services have been proven to reduce construction costs related to the risks as-



sociated with inaccurate or incomplete utility information. Using SUE services in the design phase to provide an accurate depiction of utilities reduces overall construction costs by eliminating surprise encounters with underground utilities that can bring a project to a complete halt.

TerraSim, Inc.

One Gateway Center, Suite 2050 420 Fort Duquesne Blvd Pittsburgh, PA 15222 (412) 232-3646; (412) 232-3649 (fax) info@terrasim.com

TerraSim, Inc. was founded in 1996 by four members of the Digital Mapping Laboratory of



Carnegie Mellon University with a combined 70+ years of experience in simulation database construction, photogrammetry, image understanding, and cartographic feature extraction. This expertise now supports military and commercial customers requiring robust and timely solutions to complex real-world visualization problems through the development and marketing of TerraTools®, our product for real-time 3D geospatial visualization, and custom visualization construction services.

Products

TerraTools automatically transforms raw cartographic and GIS data into detailed 3D visualizations suitable for real-time driving or flight simulation. TerraTools provides an easy-to-use interface to its powerful terrain and feature generation tools, enabling users to rapidly construct complex geospecific virtual worlds without tedious manual modeling. Source data preparation products include DEMTools, an extension to ESRI ArcGIS suite, and RoadMAP from TerraSim, a semi-automated road network extraction system from aerial and satellite imagery. TerraTools SOCET SET plug-in allows users to go directly from geospatial data collection to a detailed interactive 3D visualization.

Completed visualizations can be freely distributed to end-users with the TSGFly(tm) real-time 3D viewer or as rendered videos. Visualizations can be exported in a variety of formats including VRML, OpenFlight, 3D Studio Max, and Google Earth. TerraTools also supports the generation of terrain formats for DoD modeling and simulation, including ModSAF/OTB, JSAF, and OneSAF.

Our TerraTours® viewer supports the integration and linkage of still photography, video, CAD drawings, and web enabled information directly into the 3D geospatial visualization. Using our GISLink(tm) software, users can interactively query a TerraTours visualization to retrieve spatially organized collateral information.

TerraTools supports the integration of cartographic and GIS source data, CAD models, and design and architectural models into highly accurate 3D visualizations of urban, suburban, and natural environments. Urban environments are a particular strength of TerraTools, with its support for automatic placement and alignment of "street furniture" such as signs and poles, its automated building generation features, and its large library of urban object models.

TerraTools is available on Windows 2000/XP workstations. Training, software maintenance, and updates are provided to our customers.

Services

TerraSim performs custom database construction services, visualization project definition, data modeling and management, as well as consulting in 3D geospatial visualization.

Terratec AS

Lysaker Torg 8 PD 513 Lysaker 1327, NORWAY +4745 46 6300; +4745 46 6301 (fax) info@terratec.no www.terratec.no

TerraTec AS is a Norwegian full service provider of surveying, data acquisition and photogrammetric mapping services



to the private and public market sector worldwide. Our staff consist of 40 well qualified and motivated people. We can supply data acquisition from both aircraft (Commander 840 turboprop and Piper PA31-350) and helicopter. We also develop niche products like the positioning software TerraPos, with outstanding accuracy and reliability. TerraTec's business heritage dates back as far as 1910.

Services:

Surveying

Our geodesy and surveying department is specialized in all types of surveying for mapping and civil engineering, as well as cadastre measurements. We supply services to several Norwegian municipalities. Railroad surveying is one of our specialties. We also offer general consulting services in geodesy.

Aerial Photography

All our aerial camera systems are equipped with POS AV IMU/GPS. We offer a full range laboratory specially equipped for film development and print production using modern Leica and Intergraph roll film scanners.

TerraTec was the first company to take advantage of a **Digital Mapping Camera** for the Norwegian market, flying commercial projects since 2004. Today our customers can benefit from two digital aerial cameras. Digital image sensors generate enormous volumes of data. Based on our experience from 2004, we therefore established an internal processing center. Our production capacity is approx 2500 images per day.

Governmental Central Archive

TerraTec manages The Norwegian Governmental Central archive, containing 1.4 million aerial photos. These historic images, the oldest dating from 1936, are used for reconstruction of buildings and properties, interpretation of property borders and general development of the society.

Airborne LIDAR

TerraTec was the first company worldwide to take advantage of the Leica ALS 50 phase-II lidar system with a capacity of 150 000 pulses per sec. We supply a multitude of types of lidar measure-



ments. One of our specialties is power line mapping. Our lidar is also equipped with a 22 megapixel metric camera. Data processing is performed with products from TerraSolid. For DTM's and contour line production we can also take advantage of software like SCOP from Inpho.

Orthophoto and Photogrammetry

TerraTec has developed an efficient production line for high quality orthophotos. We have a full range production for digital mapping and a capacity in the range of 1000 images per week. We have a full range production for digital mapping based on new flat screen digital photogrammetric workstations.

TerraPos

TerraPos is a software for Precise Point Positioning (PPP). It is an effective, easy to use interface to the high quality products of the international GNSS service (IGS). TerraPos is a robust, reliable software, totally unique with respect to accuracy. We can offer accuracy (RMS) of 3-5 cm horizontally and 4-7 cm vertically. TerraPos is the ideal positioning solution for any moving platform.

Towill, Inc.

444 Natoma St San Francisco, CA 94103-2909 (415) 243-4384; (415) 243-8264 (fax) charlotte.johnson@towill.com www.towill.com

Towill is a leading provider of geomatics services and technologies, including land and hydrographic surveying, aerial



photography, terrestrial and airborne LiDAR, digital photogrammetric mapping, volumetrics, and geographic information systems (GIS). We have completed over 13,000 projects crossing a wide range of industries in support of major planning, GIS and engineering design and construction projects. Towill's competitive edge is our 50 years of experience successfully providing a broad range of geomatics engineering services coupled with the philosophy that it is our role to understand the specific needs of our clients and design practical solutions to meet their unique requirements.

Building on a successful business established in 1955, Towill has grown into an industry leader with approximately 100 employees in 10 offices located throughout California and the Western states. Our corporate headquarters is located in Concord. CA. We work throughout the United States (performing projects in thirty-five states) and the world (working in places such as Guam, Japan, Mexico, and Nicaragua).

A key to Towill's success over the years has been our commitment to effectively utilizing new technologies to our clients' advantage. We have invested over \$4M in modern hardware and software to ensure that we can provide our clients with the most accurate, cost-efficient, and timely services available. Towill has assembled a multi-disciplined staff with the experience and qualifications to perform multiple roles, giving our clients a broad depth and range of skills to meet all of their project needs. The evidence that our formula works is demonstrated by our high rate

of repeat clients and referrals. Over 80% of Towill's business comes from repeat clients, resulting in over 61M in fees over the last five years. As technology grows and new markets emerge, our clients will continue to benefit from Towill's commitment to quality and innovation – and the expertise of a proven team meeting the challenges ahead.

Track'Air BV

ZUTPHENSTRAAT 55 7575 EJ OLDENZAAL, NETHERLANDS +31 – 541229030; +31 – 541229033 (fax) info@trackair.com www.trackair.com

Track'air by was started in the Netherlands in 1995. Since then, the company has successfully developed



and distributed affordable and effective tools to the worldwide aerial survey community. Track'air employs around 10 persons worldwide, all experienced professionals, pilot, camera operator, software and hardware engineer. A US subsidiary, Lead'Air inc., is operating from Orlando, Florida, to support the distribution of our products in North America.

X-track, the main product of the company, is a multipurpose aerial survey management system that can be operated with a large variety of aerial survey equipment. This conforms to the recent trends in aerial survey where operators increasingly have to be able to operate different types of apparatus. Accordingly, X-track includes a powerful software planner capable of handling all current sensors, line scanners, frame scanners, small format photography, digital photography, and large format aerial photography.

To date, almost 600 organizations are operating the X-track system worldwide; over 200 systems are in operation in the USA. The X-track system works very well with current cameras (Vexcel UCD, RMK TOP, RC30, etc), often outperforming the manufacturers own FMS at a fraction of their cost. The system also supports older camera systems (RC8, RMK, MRB, etc), allowing the owners to profitably extend the life of their equipment.

The X-track system has been advantageously integrated in the state of the art POSTRACK system delivered by Applanix. This fully integrated FMS/IMU system is by all standards the most advanced aerial survey georeferencing system available today.

Introduced in May 2006 by Track air, the MIDAS system is the first commercially available digital oblique photography system on the market. MIDAS is the answer to the growing need for oblique aerial images and 3D mapping. In 2006, over one million photos were collected by MIDAS systems.

We invite all aerial survey operators to contact us or our US representative in the USA (ACA, Aerial Cartographic of America, Orlando, Florida. Tel: (407)851-7880 or contact s_swenson@acanet.com to learn more about our products and services.



Tukaj Mapping Central Europe

UI. Održanska 7 30-408 Krakow, POLAND +48-12-269-2747; +48-12-269-2767 (fax) rtukaj@tmce.pl www.tmce.pl

Tukaj Mapping Central Europe was established in 1998 to provide photogrammetric mapping services throughout Poland, Europe and the United States. We offer scanning, aerial triangulation, digital photogrammetric mapping, digital orthophotography and LiDAR processing.



Our photogrammetric maps are produced on a PhotoScan TD & SSK ImageStation. Software and hardware is from Z/I Imaging. Digital orthophoto equipment is state of the art technology from Z/I Imaging. We are able to offer 8000-10000 hours of compilation capacity monthly for a very competitive price. With our in-house resources and our ability, we hope to be able to team with other ASPRS members.

U.S. Geological Survey

517 National Center Reston, VA 20192 (703) 648-4567; (703) 648-5939 (fax) remotesensing.usgs.gov

The U.S. Geological Survey (USGS) was created by an Act of Congress in 1879. It has evolved over the ensuing 125 years, matching its



talent and knowledge to the progress of science and technology. USGS is the sole science agency for the Department of the Interior, and serves the Nation by providing reliable scientific data and information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life. As the Nation's largest water, earth, and biological science agency, the USGS collects, monitors, analyzes, and provides scientific understanding about natural resource conditions, issues, and problems. The diversity of our scientific expertise enables us to carry out large-scale, multidisciplinary investigations and provide impartial scientific information to resource managers, planners, and other customers.

For decades, USGS has been a world leader in providing remotely sensed data and demonstrating its scientific applications. In 2002, the USGS reaffirmed its commitment to remote sensing science by establishing the Land Remote Sensing (LRS) Program with three major components: satellite missions; products, data preservation, and access; and research and applications. USGS acquires, processes, archives, and distributes Landsat and other satellite and airborne remotely sensed data products to users worldwide. USGS operates and manages the Landsat-5 and -7 satellite missions and cooperates with NASA and other agencies to define and implement future satellite missions.

The USGS LRS Program also maintains the Nation's archive for the world's largest collection of civilian remotely sensed data covering the Earth's land masses, including millions of satellite images and aerial photographs that are used by researchers and operational land managers in both the public and private sectors, to understand natural resources, hazards, and long-term changes. The LRS Program conducts and sponsors research in collection, access, distribution, and applications of remotely sensed land data from current and future data sources. Scientists and engineers sponsored by the LRS Program are investigating new types of satellite systems and sensors, studying promising new data sources, developing new data acquisition programs and sources, and assessing the potential for new data applications.

USDA/National Agricultural Statistics Service

3251 Old Lee Hwy Rm 305 Fairfax, VA 22030 (703) 877-8000; (703) 877-8044 (fax) www.nass.usda.gov

The National Agricultural Statistics Service (NASS) provides timely, accurate, and useful statistics describing virtually every facet of U.S. Agriculture. These statistics are obtained through hundreds of annual surveys and the Census of Agriculture, the latter being conducted every five years. Since the 1980's, NASS has used satellite imagery



to enhance, but not replace, its program of surveys. The GeoSpatial Information Branch currently directs three applications of remote sensing in NASS:

- Area Sampling Frame Construction: Each year NASS randomly samples, through site visits, approximately 11,000 tracts of land to estimate agricultural activity across the United States. NASS uses Landsat data, SPOT imagery, and digital ortho-photography to help identify suitable areas for sampling, and also uses printed aerial photography for actual field enumeration.
- Cropland Data Layer (CDL): NASS uses medium resolution multi-spectral satellite data, such as Landsat 5 TM or AWiFS, to identify crop types and acreages in selected states. This imagery is used to generate statewide mosaics that can be analyzed in geographic information systems. These mosaics are available upon request from NASS, via CD-ROM/DVD.
- Vegetation Condition Imagery: The Normalized Difference
 Vegetation Index measures vegetation vigor, and is derived
 from Advanced Very High Resolution Radiometer data from
 National Oceanic and Atmospheric Administration weather satellites. NASS maps this index on various spatial scales to help
 USDA officials monitor crop conditions throughout the country.



Valtus Imagery Services

1375 Walnut Street, Suite 220 Boulder, CO 80302 (303) 482-2309; (303) 482-2310 (fax) questions@valtus.com www.valtus.com

Valtus Imagery Services specializes in the storage and distribution of large imagery datasets through web delivery



systems. The data distribution tools, VISTA and VIEWS, access multiple resolution imagery layers, including the most current 1-meter ADS40 digital imagery, high resolution satellite and aerial imagery, and lower resolution satellite imagery for large area analysis. In addition, Valtus allows the seamless integration of any client's privately-owned imagery by offering a content hosting service.

VISTA is a web browser-based imagery search, identification and ordering tool. Users login into a secure website, explore the library of imagery populated by multiple aerial and satellite providers, and place imagery into a shopping cart to complete the order. Valtus processes the imagery to the user-defined specifications (projection, file type, etc) and notifies the users of the image's availability via email, typically within minutes of placing the order. The user then downloads the imagery via ftp.

VIEWS allow the real-time streaming of the same imagery database directly to the user's desktop. VIEWS is an OGC WMS-compliant imagery service and is accessible in most applications that support this widely accepted standard (ESRI, AutoDesk, MapINFO, Google Earth and others). Each time a user launches their preferred application, they access imagery by turning on the different layers in the database. Management tools also allow managers to create user profiles that determine access levels for different departments or users.

VAULT is the Valtus Content Hosting Service removes the expense and management burden associated with large imagery datasets. Organizations lease space on the secure Valtus storage facility and automatically upload content via ftp, or through delivery of the imagery directly to Valtus. Valtus maintains the storage facility and guarantees server uptime, redundancy, backup and security. In addition, the private hosted imagery can be seamlessly merged with other data on the Valtus public database.

Vexcel Corporation

1690 38th Street Boulder, CO 80301 (303) 583-0264 lee@vexcel.com

Founded in 1985, Vexcel Corporation is an internationally recognized remote sensing



company with offices in the US, Canada, Austria, the Netherlands, the United Kingdom and sales operations in China and Australia. The company offers a range products and services to government and commercial markets. Its product offering for aerial mapping

organizations, including the UltraCam digital aerial camera and the UltraScan 5000 precision scanner, are widely adopted worldwide. Additional areas of specialization include GIS system solutions; SAR research, exploitation software and services; hyperspectral data processing solutions; and complete turnkey remote sensing ground systems.

Vexcel has a long tradition in providing solutions for organizations involved in aerial photogrammetry, and is proud to present a fully-digital approach to photogrammetric operations which offers unique capabilities and the efficiencies of highly-automated production techniques. The highly-automated workflow allows a radical improvement of all steps of the photogrammetric production process.

Collect

- · UltraCam™ Large Format Digital Aerial Camera
- Best-selling large-format photogrammetric camera since its first delivery in 2004
- Collection of high-overlap, high-quality digital pan and multispectral imagery from UltraCam facilitates intelligent automation of production techniques downstream
- · UltraScan 5000™ Precision Photogrammetric Scanner
- Cost-effective, easy-to-operate and maintain, superb image quality and performance

Archive

- UltraMap™ Server
- Replaces traditional film room with scaleable digital archive, sophisticated cataloging and project management tools

Produce

- · UltraMap WorkSuite
- Replaces conventional production steps in a highly-innovative, automated solution

VXServices, LLC

1230 Hunter Ct.
Longmont, CO 80501
(303) 651-6519; (303) 651-7693 (fax) bloupee@vxservices.com
www.vxservices.com

VXServices, LLC is the worldwide manufacturer and service

VXSERVICES, LLC

provider for the VX4000 photogrammetric scanning system. The VX4000 is a robust and proven system which incorporates unique features including continually self-referencing invisible reseau glass grid and true resolution scanning. VXServices has provided unparalleled service and support to our customers and looks forward to continuing that tradition of excellence in our new joint venture as DIMAC Systems, LLC, manufacturer of the most innovative digital aerial camera available.



Watershed Concepts

6201 Fairview Rd. Ste 400 Charlotte, NC 28210 (704) 643-0108; (704) 553-6151 (fax) wise@watershedconcepts.com www.watershedconcepts.com

Watershed Concepts is a highly specialized firm focused on large, water resources projects



for governmental clients. We perform many services through our unique perspective on total watershed management. At Watershed Concepts, we have been performing stormwater and flood control management services for over 15 years. Our firm specializes in stormwater management planning, hydrologic and hydraulic analysis, floodplain mapping, surface water quality, GIS and computer programming, and data management.

At Watershed Concepts, we have a continued emphasis on technology and automation. Over the past five years, our staff of highly skilled engineers and programmers has invested over 10,000 man-hours towards the development of our customized software package known as the Watershed Information SystEm (WISE)Ô. This software is a comprehensive system for government agencies (local, state, and federal) to manage, access, and analyze large amounts of data related to water resources. The system provides an open data storage system for topographic and infrastructure data and provides tools to rapidly access this information and allow for complex watershed analyses.

This emphasis on technology and automation, specifically related to water resources and floodplain mapping, has allowed us to successfully complete a significant amount of floodplain mapping projects in the past five years. Watershed Concepts has completed over 40 countywide DFIRM projects including hydrologic and hydraulic analysis of over 10,000 miles of stream covering over 10,000 square miles and produced over 2,000 DFIRM panels (in the last two years) across the United States. This tremendous experience ensures that we can produce high quality, cost effective floodplain mapping projects that meet all of FEMA's most current standards. We have worked with over ten Cooperating Technical Partners on projects to efficiently utilize available federal, state, and local resources to produce a high quality DFIRM product.

Wehrli & Associates, Inc.

7 Upland Drive Valhalla, New York 10595 Tel: (914) 831-9821 info@wehrliassoc.com - Contact Person: Gregory R. Wehrli www.wehrliassoc.com

Wehrli & Associates Inc. provides the photogrammetric market with the highest quality products at the lowest cost. Our goal is to offer our customers the ability to earn a fair and quick return on their investment.



Currently, our product line includes digital photoscanners, digital aerial cameras, airborne stabilizing platform along with a complete

software suite ranging from flight management to data acquisition to data rectification to 3D mapping and orthophoto generation.

The 3-DAS-1 is the latest in uncomplicated push-broom aerial cameras with finest radiometry (Kodak sensors) and is interfaced to nearly all IMU/GPS systems. It features a highly modular threecamera head design offering easy maintenance.

The ASP-1 features a robust, kinematic construction, highly accurate motion in roll, pitch and yaw with real-time feedback and recording, interface to IMU/GPS.

Western Air Maps, Inc.

9401 Reeds Road Overland Park, KS 66207 (800) 643-5177; (913) 652-9933 (fax) western@westernair.com www.westernair.com

Western Air Maps, Inc. is a true full service in-house provider of photogrammetric and surveying

Western Air Maps, Inc.



services utilizing only US based domestic labor. Founded in 1960 and located in Overland Park, Kansas the "Heartland of America" Western Air Maps, is recognized as a leading small business in the field. Our extensive list of in-house services include aerial photography acquisition utilizing airborne GPS with IMU data collection, conventional and GPS surveys; image scanning, aerotriangulation, digital ortho photography, DTM, DEM, topographic mapping, GIS base mapping, and update mapping.

We employ a highly professional staff including certified photogrammetrists and registered land surveyors guided by professional management into a cohesive team that provides our clients with superior professional photogrammetric services and outstanding customer service.

The key to our success is keeping abreast of the ever-changing photogrammetry environment. Western Air Maps continues to integrate the latest advancements in technology into our workflows, providing our staff with the quality equipment and training to get the job done, on time and within budget. For example,

- In 2002 we added the Applanix Pos-AV 510 IMU to our Zeiss aerial camera
- In 2003 we added BAE SYSTEMS' SocetSet workstations to our existing Z/I Imaging's SSK's enhancing the capabilities and capacity of our entirely softcopy photogrammetric mapping
- · In 2004 we added a Panther Conversion to our Piper Navajo PA-310 expanding both the aircraft range and ceiling, a Trimble 5600 DR (robotic) Total Station and the TerraScan LiDAR processing suite.

The combination of our highly trained staff and the latest equipment, equal quality professional services. The core element of our vision statement is 'Imagery and Mapping Solutions'. We have demonstrated our commitment to our vision over the past 40 years and continue to exceed client expectations.

Western Air Maps, Inc. qualifies as a small business under SBA guidelines.



Woolpert LLP

409 East Monument Avenue Dayton, OH 45402-1261 (937) 461-5660; (937) 461-0743 (fax) jeff.lovin@woolpert.com www.woolpert.com

A leader in providing engineering, surveying and related professional services for nearly a century, Woolpert has earned a reputation as a pacesetter in Photogrammetry, Geographic Information Systems (GIS), Surveying/ Global Positioning Systems (GPS), and Information Technology.

Founded in 1911, Woolpert has been providing quality mapping services since 1974. An international



WOOLPERT

provider of photogrammetric services since 1969—and a USGS service provider since 1993—Woolpert has the capability to handle every step of the photogrammetric process and to link the resulting mapping and orthophotos to related data.

Woolpert's Photogrammetric services include: DOQ and DEM/DTM production, aerial photography/videography; airborne GPS; GPS/conventional surveying; photogrammetric mapping and remote sensing; orthophoto rectification; DTM modeling/LIDAR mapping; AM/FM GIS and LIS design and development; and digital orthophotography/data conversion.

Woolpert's adept staff provides the confidence of broad-based surveying experience, and a thorough understanding of the following technical instruments: Field Computers (data collectors); Electronic Total Stations; Real Time Kinematic (RTK) GPS Systems; Computer-Aided Drafting (CAD) Software; Field-to-Finish Mapping Software; Pen Computers (linked to real-time survey systems and CAD); Robotic (servo driven) Total Stations; Electronic (bar-coded) Differential Levels; Electromagnetic Underground Utility Locating Equipment.

Woolpert is certified by the Occupational Safety and Health Administration (OSHA) approved hazardous waste site worker training, including hazardous toxic radioactive waste (HTRW) and confined-space entry programs.

Woolpert's GIS/IT services include: Internet/Intranet application development; database design; data conversion/development; application development; GIS maintenance and other value added development and custom applications.

Woolpert takes pride in being one of the few firms that owns and operates all the equipment needed for GPS surveying, aerial photography, aerial triangulation, photogrammetry, digital orthophotography, and other GIS services. We maintain and upgrade our state-of-the-art technology to accommodate the latest software releases and equipment enhancements.

Woolpert's Technology services include: Computer-related consulting; application development; hardware and software acquisition, configuration, setup, and training; and network configuration planning and design.

All our innovative technology services have grown from a background in engineering design, so we know how to make our mapping and technology products work in the real worlds of government and industry. Our design specialties include Site/Civil Design, Transportation, Water Management, Facility Planning and Design, and Water Resources.

At Woolpert, our focus is on the client, not on us. Our high percentage of repeat business is a testimony to our reputation for client satisfaction.

XEOS Imaging Inc.

5353 Des Gradins Blvd Quebec, QC G2J 1C8 CANADA (866)215-4708 #383; (418) 622-1137 (fax) jfcauchon@xeosimaging.com www.xeosimaging.com

XEOS Imaging Inc. offers high-resolution digital aerial imaging products and services throughout North America since 1988.



XEOS® technology has been developed to simplify the overall management and planning of various infrastructures like roads, pipelines, power lines, rivers, coastlines and railroads.

The simplicity of the XEOS® products means it can be used even by people with little or no computer experience. XEOS® technology has recently won several awards and prizes for its technological innovations in high resolution digital aerial imagery.

XEOS Imaging Inc. products include:

- ·Single Images
- $\bullet Seamless\ Ortho\text{-}Mosaics$
- Stereoscopy
- · Web Based Interactive Cartography.

Image resolution varies from 1 inch (3 cm) to 40 inches (1 meter). Ortho-Mosaics can be produced without the need for ground control points. All XEOS® products are integrated into our customer's GIS.