

# Aerial Inspections



Professional Analysis and Consulting Inc. is authorized by the FAA to conduct aerial inspections using Unmanned Aircraft System (UAS), sometimes called a drone. Our FAA licensed UAS pilots have substantial flight experience in forensic scene documentation, infrastructure and building documentation. Our sophisticated UAS systems include our aircraft, cameras, case specific sensors.

We have drone experts that are insured and properly certified under FAA rules for commercial UAS flight missions. Our technical and forensic experiences allow the integration of this innovative technology into project investigations, scene documentation, and trial exhibits. UAS produced photogrammetry analyses are more efficient than traditional scanning methods.

Our UAS, and its motion stabilization and high-resolution camera, assists in quickly capturing clear, unique videos and photographs of any scene or structure. This technology can safely, efficiently, and accurately document accident scenes, fires, explosions, or structural integrity. It can also assist in monitoring and inspecting manufacturing operations, agricultural issues, power / electrical lines, and wind turbines.

### **Services**

- Accident investigation and reconstruction
- Vehicle incident investigations
- Scene documentation and measurement
- Environmental incident investigations
- Building and infrastructure inspections
- Chemical / Refinery plant inspections
- Agricultural inspections
- Fire and explosion inspections
- 3D model (photogrammetry) development



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### **Practice Area Leaders**



#### John W. Kidd – Director, Field Services

Mr. Kidd has extensive accident investigation experience focusing on field inspections and scene documentation. He holds an FAA Airman Certification for Remote Pilots for Small Unmanned Aircraft Systems and is also an FAA licensed private pilot. He is experienced with piloting UASs of various models. In addition to laser scanning and total station, he incorporates the UAS technology into investigations, including photographic and video collection, editing, and measurement verification.

#### John A. O'Neill, FAA A&P / IA – Senior Aviation Consultant



Mr. O'Neill brings over 35 years of experience with BP Amoco during which he assumed increasing levels of responsibility for BP's aviation activities worldwide. His experience ranges from fixed wing corporate jets to helicopters serving off shore platforms. He consults in all areas of aviation maintenance, operations, and safety. He provided aviation oversight for BP's aviation vendors, conducted operator reviews, and has participated in accident investigations. He continues to serve on various industry committees. Mr. O'Neill is a licensed Federal Aviation Administration (FAA) Airframe and Power Plant mechanic, with an Inspection Authorization (A&P/IA), holds an FAA Airman Certification for Remote Pilots for Small Unmanned Aircraft Systems, and is a licensed private pilot.

#### Timothy M. Hicks, P.E. - Principal Engineer, Mechanical



Mr. Hicks performs investigations and failure analysis from a mechanical engineering perspective. His projects have involved design analysis, product liability, intellectual property, manufacturing, accident investigation and reconstruction, fire cause and origin, and testing. In most of his accident reconstruction cases, scene documentation becomes relevant and important. Mr. Hicks has utilized total station, laser scanning, and drone scanning technology to support his investigations. His vehicle experience includes commercial vehicles, automobiles, RVs, motorcycles, buses, railroad, agricultural, and construction equipment. He is certified for the Bosch Crash Data Retrieval System ("Black Box").

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