



ASYMMETRIC

UNMANNED AERIAL SYSTEMS

UMS-Educational Workforce Development Summit - Industry Perspective

PRESENTED BY

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Asymmetric Unmanned Aerial Systems

- Service Disable Veteran Owned Small Business based in Columbus, OH with a worldwide footprint
- Founded in 2011 focused on transitioning emerging technologies into operational capability
- UAS Business Group provides UAS Flight Services, Training and Program Development
 - Started in October 2013
 - Section 333 Exemption approved February 12th, 2015



Demand and Supply Balance

Near Term Commercial Requirements (Line of Sight, Small UAS)

- **Commercial sUAS are flying laptops - high level of software/hardware know how, minimal maintenance and sustainment skills**
- **Three labor categories in current business strategy**
 - **Pilots - currently requires high level of certification, in the future becomes a commodity**
 - **Visual Observer/Data Management - high level of skills focused on sensors and data management**
 - **Team Leader - understands and supervises all critical tasks, but also has business and operational smarts**

Demand and Supply Balance

Long Term Requirements (Beyond Line of Sight, larger weight classes)

- **More complex aircraft requiring similar approach as manned aviation**
- **Pilots - anticipate requirement for FAA Pilots**
- **Dedicated Sensor Operator**
- **Team Leader and Mission Planner**
- **Maintenance Technician - Avionics, Small Engineer, Sensor, ground control and launch/recovery systems**

Current Gaps and Challenges

- **Currently no hard marks on the wall to reach for**
 - **Regulatory environment hazy**
 - **Commercial market still taking shape**
 - **No standardization of systems (aircraft systems, navigation and flight control, data management, deliverables)**
- **Uncertain labor market**
 - **Limited data on demand for services and utilization**
 - **Soft price points (directly related to compensation)**
- **Best source of labor right now is the military and the hobbyist community - most experience and diverse set of skills**



Ideas to Improve

- **Current - sUAS - focus training in domain specific areas**
 - **Most sUAS applications will be just an extension of currently used tools and techniques**
- **Future - Beyond Line of Sight**
 - **Maintain ties to larger aviation community**
 - **Focus on multi- disciplinary skills**
 - **Aviation**
 - **Computer sciences**
 - **Mechanical and Avionics**
 - **Physical Sciences**
 - **Business**





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Questions

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