



# Small UAS Industry Perspective

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## Outline



**SELECTTECH** GEOSPATIAL



**CURRENT UAS OFFERINGS** 



**TECHNICAL TRENDS** 



**POLITICAL TRENDS** 



**CURRENT MARKET APPLICATIONS** 



### Integrated Shelter Systems



# TOC

#### Supported Missions:

- Tactical Operations Centers
- UAS / ISR C2 and PED
- USAF RORO Systems and Missions
- Secure Operations SCIFs/TSCIFs
- Transportable SATCOM
- Mobile Data Centers
- EW Mobile Systems
- Live Virtual Constructive (D-LVC)
- Support Blue Devil and Gorgon Stare

#### Expertise:

- Environmental control
- Power sub-systems
- Multi-level signals infrastructure
- EMI-shielding and physical security
- · Mating with soft enclosures
- ISR system integration
- Aircraft / UAS integration

























### Electronic Enclosures



## Electronics

#### **General Capabilities:**

- · Rapid Prototyping / Testing
- 3-D Modeling
- Precision Machining and Fabrication
- FEA/CFD/CAD/CAM
- RF Testing and Calibration
- EMI Testing / Mitigation
- Software / Hardware Integration
- Reverse Engineering
- Airworthy Certification: DO-160, MIL-STD

#### Specialty Integration/Fabrication:

- Fast First Article
- Chassis Design and Build
- Integrated Electronics
- Power Management Design and Build Integrated Sensor Management and Control
- Logistics / Transportation / Packaging
- Special Communications and Power Enclosures
- · Cable Harness Design and Fabrication



















# Electronics Integration/ Aircraft Modifications



#### **Supporting Capabilities:**

- · Precision Machining
- · Specialty Welding
- EMI Testing
- · Mil Spec Connectors and Wiring
- Test Facilities / Antenna Test Range
- · Custom Labeling and Painting
- Aircraft Electronic Integration
- · Airworthiness Certifications
- Specialized Cabling/Harnesses

#### Systems Build:

- Integrated Power Systems
- Signals Interface
- · Load / Weight distribution
- Rack Integration
- Transit Case Integration
- Roll-on/Roll-off Enclosures/SATCOM
- Mobile / Aerial / Maritime Systems



# Aircraft Kits and Modifications



### UAS and Airborne Systems Support



#### Advanced Manufacturing & Test Facility:

- VTOL and Fixed Wing Design/Production
- Custom Launcher Design/Production
- 10 miles from Wright Patterson AFB
- Flight line shared with USAF/OHANG
- Full service hangar operations
- Secure facilities
- Airfield tower for coordination

#### **UAV Mission Support Services:**

- 24/7 operations
- · Surrogate UAS flight test support
- Full system assembly and integration
- RF frequency management
- Tower, runway, and airspace management
- EO calibration targets
- End-to-end test support
- · Communication and datalink services
- Aircraft maintenance
- Cable and harness assembly
- · Sensor installation and testing

















# UAS

## SelectTech Custom UAS Designed - VTOL









"Custom designed, custom built in OHIO"

# SelectTech Custom UAS Designed – Fixed Wing







"Custom designed, custom built in OHIO"









**Batteries** 

Battery Managers Innovative Propeller Designs



New Light
Weight/High
Strength
Materials



Auto Pilot Evolution



Ground Station Progress



Continued impact from China (DJI – 80% Market Position)



DJI Backed by Chinese Military



DoD Directive - No Chinese Birds



Nebulous FAA



Local Governments not Current on Regulations



Fear factor

# Political Trends

## Current Market Applications



## Thank You

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