

***SOLVE FOR X.***

# **Drones at Scale: *It's Time for Revenue***

**Presented by:**

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**Small UAV Coalition**



**SMALL UAV  
COALITION**  
*A Partnership for  
Safety & Innovation*



**PROMAT** | 2017

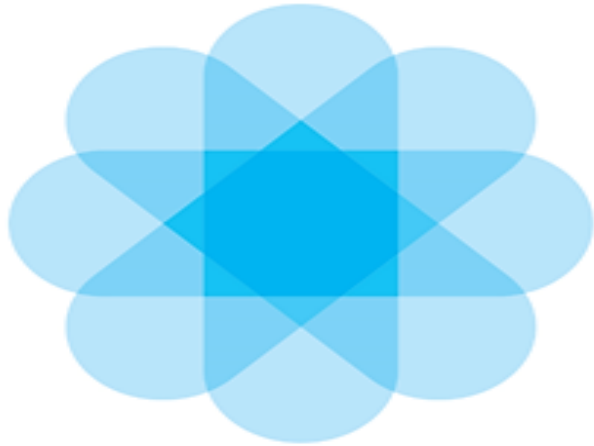
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# SMALL UAV COALITION

*A Partnership for  
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## Small UAV Coalition Members

**Verizon  
Ventures**



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## Our Objectives

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- The Small UAV Coalition recognizes that commercial applications of UAS technology represents the long-tail of the industry.
- We support and advocate for a range of law and policy changes that will not only embrace, but encourage, the growth of the industry, including:
  - Permitting operations of small UAVs beyond the visual line of sight, over people, and at night without a waiver/approval process.
  - Supporting the development of infrastructure to safely manage the widespread use of low-altitude airspace.
  - Embracing the carriage and delivery potential of UAS in a wide array of capacities, from humanitarian to commercial operations.
  - Enabling broader access to commercial mobile services and unlicensed spectrum.

## Commercial Drone Applications

- Infrastructure
- Transport
- Insurance
- Media & Entertainment
- Telecommunications
- Agriculture
- Security
- Mining



*Pictured: AeroBo, Flirtey, Kespry, PrecisionHawk*

## The Case for Scalability

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- **Technology continues to outpace regulation**
  - **Flirtey** made first approved US drone delivery, delivering 24 packages of urgent medical supplies to clinic in rural Virginia in July 2015
  - **Intel** flew 100 drones simultaneously during choreographed light show in California in May 2016 and 300 drones for Super Bowl halftime show in February 2017
- **Technology exists to safely implement operations at scale**
- **Slower regulatory pace delays vast economic benefit and job creation**

## Current Regulatory Landscape: *Part 107*

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- **Small commercial rule (Part 107) implemented August 2016**
  - Operators must pass Aeronautical Knowledge Test
  - Maximum altitude of 400 ft AGL (except 400 feet above structures)
  - 55 lb limit (not waivable)
- **Waivers required for BVLOS, nighttime operations, OOP, and multiple UAS**
  - No carriage of property permitted BVLOS or across state lines
  - Vast majority of waivers granted so far permit nighttime operations

## Current Regulatory Landscape: **DAC & UAST**

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- **Drone Advisory Committee (DAC)**
  - Multistakeholder group
  - Tasked with identifying and proposing actions to the FAA to address issues affecting UAS integration into the NAS
  - Three task groups under DAC Subcommittee: Airspace Access, Roles and Responsibilities (preemption), and Budget Costs and Resources
- **Unmanned Aircraft Safety Team (UAST)**
  - Data-driven, consensus-based group
  - Tasked with analyzing safety data and developing non-regulatory interventions to mitigate potential causes of accidents involving UAS



## Looking Ahead



- **Elaine Chao selected to lead the Department of Transportation**
  - Labor Secretary under President George W. Bush
  - Deputy secretary of Transportation under President George H.W. Bush
  - Married to Senate Majority Leader Mitch McConnell (R-KY)
- **Ongoing communication with incoming Administration officials**
- **Opportunity to pursue light regulatory touch to enable innovation & place America in leading position internationally**

## Looking Ahead: *FAA Reauthorization*

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- **2017 Coalition Priorities:**
  - Streamlining existing waiver and authorization processes
  - Education and training
  - Expediting development and implementation of UTM framework
  - Authorizing widespread UAS carriage and delivery
  - Securing a national standard for state and local UAS laws and regulations

## Looking Ahead: *Operations Over People*

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- **FAA to publish NPRM for OOP**
  - Originally scheduled for release by end of 2016
  - Requires approval from DOT Secretary Chao under Presidential Memorandum
  - Expect authorization of OOP with certain performance standards and operational limitations
  - If case by case FAA approval, no better than an exemption or waiver process
  - Ideally, would only require a safety risk self-assessment, not subject to FAA review and approval
  - Implications of “2-for-1” Executive Order?
- **Potentially informed by the 2016 Micro UAS ARC Report**
  - Relied primarily on manufacturer certifications and consensus industry performance standards
  - Uses kinetic energy (weight and speed) as critical factor

## ***For More Information:***

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