Overview of the Unmanned Aircraft Systems Industry

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Association for Unmanned Vehicle Systems International
About AUVSI

• Association for Unmanned Vehicle Systems International
• AUVSI’s mission is to advance the unmanned systems and robotics community through *advocacy, education and market growth*.
• In its 45th year, AUVSI is the *world’s largest association for unmanned systems and robotics*
  • Air, ground and maritime
  • Commercial, civil and defense
• More than *7,500 members*, including *more than 600 corporate members* from more than *60 countries*
• *Diverse membership* from industry, to government to academia
• *More than 30 chapters across the U.S.*, and others in Israel, Singapore, Spain, and the United Kingdom
• *XPONENTIAL*, industry’s largest trade show, *Dallas, May 8 to 11*
• Automated Vehicle Symposium, *San Francisco, July 11 to 13*
UAS Economic Potential

AUVSI’s Economic Report:

• The UAS **global market** is currently **$11.3 billion**

• Over the next 10 years, the UAS **global market** will total **$140 billion**

• The economic impact of US airspace integration will total over **$13.6 billion** in the first three years and will grow to over **$82.1 billion** in first decade
sUAS Rule (Part 107 FAR)

- Mandated by 2012 FAA Reauthorization Act
- **Took effect on Aug. 29, 2016**
- First clear regulatory framework on civil and commercial UAS operations
- Established a flexible, risk-based approach to regulating UAS
- Requires knowledge test, background check
- Approved operations:
  - Only during daylight hours
  - One aircraft, one pilot
  - Within visual line of sight, <400 feet
- Certain operations allowed by waivers
- Remote Pilot Certificates
  - Total Certificates Issued: 59,016
  - Total Knowledge Exam Passed: 40,741
  - Exam Success Rate: 92%

UAS Registrations

- Online Commercial: 815,315
- Paper: 6,696
- Online Hobby: 79,131

**Total** 904,613
sUAS Rule (Part 107 FAR)

Waiver Types Granted to Operators

Top Applications
- Real Estate
- Construction
- Infrastructure
- Advertising
- Filmmaking
- Agriculture
- Events
- Emergency Management

Airspace Waivers/Authorizations
Approved
- Class B: 956
- Class C: 1,454
- Class D: 3,931
- Class E: 684
- Total: 7,025

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<th>Category</th>
<th>Number</th>
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<td>Nighttime Operation in Certain Airspace</td>
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FAA UAS Regulation Roadmap

- **Integrated NAS Operations**
  - Interaction with ATC
  - Safety achieved via compliance to conventional aircraft operating principles

- **Expanded Operations**
  - Expand part 107 to facilitate low altitude operations through Airworthiness certification
  - Enables Pathfinder 2 and 3 operations

- **UAS Over People**
  - Expand part 107 to incorporate standards for flight over non-participating people
  - Enables Pathfinder 1 operations
  - Remote Identification*

- **Part 107**
  - Regulatory framework for small UAS operations
  - Safety achieved through VLOS and operating limitations

- **Section 333**
  - Case-by-case exemptions granted to existing regulations
  - Enables non-recreational UAS operations before final part 107 rulemaking
  - Safety achieved with operating conditions and limitations

Source: FAA
Know Before You Fly Campaign

- Education campaign to teach prospective UAS users how to fly responsibly
  - Partnered with Academy of Model Aeronautics and FAA
- Website [www.knowbeforeyoufly.org](http://www.knowbeforeyoufly.org) provides recreational, commercial, and public entities with information and guidance to fly safely and responsibly.
- Working with manufacturers and distributors to include pamphlets in UAS product packaging and at the point of sale
Remote Pilots Council

Initiatives to promote safety and performance in the unmanned aircraft systems (UAS) industry.

AUVSI Excellence Awards - 23 awards

• Technology innovation
• Training, Certification and Education Provider
• Operations and Safety Award
• Humanitarian Award

The awards will be presented at

COLORADO CONVENTION CENTER | DENVER
April 30 – May 3: Educational Program | May 1 - 3: Exhibits
Collaborations & Partnerships

Partnership with National Council on Public Safety
• Collaborate to create education programs and materials to facilitate the widespread adoption of UAS among first responders. The partnership will also provide a forum for industry and the public safety community to review and evaluate the latest research and development in unmanned systems technology, as well as the products and services it enables to support mission-critical operations.

ANSI UASSC – Standardization Collaborative
• To coordinate and accelerate the development of the standards and conformity assessment programs needed to facilitate the safe, mass integration of unmanned aircraft systems (UAS) into the national airspace system (NAS) of the United States, with international coordination and adaptability.