



# International Civil Aviation Organization Regional Aviation Safety Group - Pan America (RASG-PA)

#### **WORKING PAPER**

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Eighth Regional Aviation Safety Group — Pan America Annual Plenary Meeting (RASG-PA/8)
Medellin, Colombia, 25 June 2015

**Agenda Item 5:** Safety Initiatives

**5.3** Other Safety Initiatives

## SAFE INTEGRATION OF UNMANNED AIRCRAFT SYSTEMS INTO NON-SEGREGATED AIRSPACE

(Presented by the United States)

#### **EXECUTIVE SUMMARY**

Unmanned aircraft systems (UAS) are inherently different from manned aircraft. Integrating UAS into non-segregated airspace is challenging for civil aviation authorities, air navigation service providers and aviation community. The Federal Aviation Administration (FAA) is taking an incremental risk-based approach to safe, efficient, and timely integration into our national airspace system as the agency acquires a better understanding of potential operational and technical issues associated with unmanned aircraft flight.

Action:	Recommended actions are included in Paragraph 3.
Strategic Objective:	• Safety

### 1. Introduction

1.1 Integration of UAS into the global aerospace system has to be safe, efficient and timely. Safety is the FAA's primary mission and the agency is committed to reducing delays and increasing system reliability. This new technology has significant potential safety and economic benefits to help achieve these goals. The FAA is taking an incremental approach to safe UAS integration as the agency acquires a better understanding of operational issues such as training requirements, operational specifications, and technology considerations.

#### 2. Discussion

Since 1990, the FAA has allowed limited use of UAS for important public missions such as disaster relief, search and rescue, law enforcement, border patrol, scientific research, and testing and evaluation. The FAA has authorized some non-recreational UAS operations in controlled, low-risk situations. UAS operations potentially range from ground level to above 50,000 feet, depending on the specific type of aircraft. Flying model aircraft for a hobby or recreational purpose does not require FAA approval, but all model aircraft operators must abide by industry safety operating standards.

- In February 2015, the U.S. Department of Transportation and the FAA released a proposed set of regulations that will pave the way for small UAS those under 55 pounds to enter the mainstream of U.S. civil aviation. The rule would allow routine use of small UAS in today's aviation system, and is flexible enough to accommodate future technological innovations. The proposal offers safety rules addressing non-recreational small UAS operations and for model aircraft operations that do not meet the criteria in Section 336 of Public Law 112-95. The rule would limit small UAS to daylight flights and visual-line-of-sight operations. The proposed rule also addresses issues such as height restrictions, operator certification, optional use of a visual observer, aircraft registration and marking, and operational limits. The proposed rule also includes extensive discussion of a possible "micro" classification for UAS under 4.4 pounds. The FAA is asking the public to comment on whether it should include this option as part of a final rule.
- 2.3 Integrating UAS into the nation's airspace presents both opportunities and challenges, but the focus is on ensuring the safety. New policies, procedures, and approval processes are needed to deal with the increasing desire by civilian operators to fly UAS. In order to develop and implement new standards and guidance, the United States and other ICAO Member States to consider this methodology as they integrate UAS into their own airspace. We also encourage participation in global/regional forums that increase understanding of UAS matters.
- 2.4 Links to more information on FAA's UAS program and regulations are contained in the **Appendix**.

## 3. Recommended Actions

- 3.1 The Meeting is invited to:
  - a) encourage States to take note of regulatory developments in the United States as they integrate UAS into its national airspace; and
  - b) urge ICAO to consider options for raising awareness of UAS matters in regional forums.

## APPENDIX

For more information on the FAA's UAS program, please visit: <a href="http://www.faa.gov/uas/">http://www.faa.gov/uas/</a> and the following websites:

The FAA encourages new operators to visit: <a href="http://www.knowbeforeyoufly.org">http://www.knowbeforeyoufly.org</a>

An overview of the Small UAS rule can be viewed at: <a href="http://www.faa.gov/regulations">http://www.faa.gov/regulations</a> policies/rulemaking/media/021515 sUAS Summary.pdf

You can view the UAS fact sheet at: <a href="http://www.faa.gov/news/fact\_sheets/news\_story.cfm?newsId=18297">http://www.faa.gov/news/fact\_sheets/news\_story.cfm?newsId=18297</a>

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