



Unmanned Aircraft Systems in the National Airspace System

Team Debate

ASEN 5519

27 April 2006



Debate Context

- ▶ The Air Commerce Act of May 20, 1926, was the cornerstone of the Federal government's regulation of civil aviation. This landmark legislation was passed at the urging of the aviation industry, whose leaders believed the airplane could not reach its full commercial potential without Federal action to improve and maintain safety standards. The Act charged the Secretary of Commerce with fostering air commerce, issuing and enforcing air traffic rules, licensing pilots, certificating aircraft, establishing airways, and operating and maintaining aids to air navigation.
- ▶ The FAA is currently considering policies and regulations to integrate Unmanned Aircraft Systems (UAS) into the National Airspace System (NAS).
- ▶ You have surveyed the literature to learn definitions and requirements for operating aircraft in the NAS, assessed the state-of-the-art in “sense and avoid” technologies, and studied some of the algorithmic requirements for deconfliction. Based on these studies you will argue why, or why not, UAS should be integrated into the NAS.
- ▶ Resolved: The FAA should act immediately to develop, and implement, rules and regulations for the integration of Unmanned Aircraft Systems into the National Airspace System.



Teams

▶ Affirmative

- Birschbach
- Fox
- Smith
- Coley
- Lowary
- Kelley
- Shulman

▶ Negative

- Phillips
- O'Brien
- Claiborne
- Ralph
- Fillmore
- Kerker



Rules

- ▶ For each question, a team has 10 seconds to designate a respondee. No respondee may repeat during the course of the debate.
- ▶ For each question response is limited to 2 minutes. This will be followed by a 2-min rebuttal.
 - I will raise my hand to indicate 30 seconds remaining.
- ▶ Participants may not direct questions at each other.
- ▶ There will be a 2-min closing statement from a selected member of each team.



Question 1

- ▶ Should the FAA publish uniform, nationwide policies regulating UAS operations, or should the policies and regulations be published by district?



Question 2

- ▶ Should the current division of airspace into classes A-E be further classified as “UAS acceptable” and “UAS unacceptable”?



Question 3

- ▶ Should the FAA provide flexibility in regulation of UAS operations or should those regulations be conservative, based on the highest-risk scenarios?



Question 4

- ▶ How should the FAA requirements for “see and avoid” and “equivalent level of safety” be interpreted?



Question 5

- ▶ In some ways UAS are safer than manned aircraft because they can eliminate pilot error and will obey all no-fly restrictions as programmed. Is this a compelling argument for UAS integration into the NAS?



Question 6

- ▶ Who should fund research on the UAS integration topic?