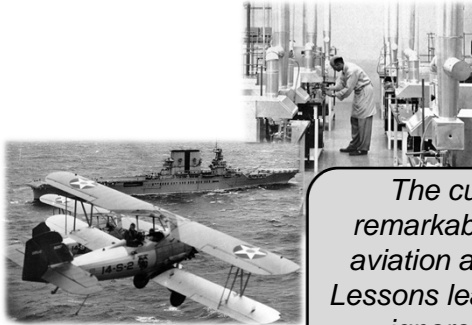


With impending budget reductions, there will be increasing pressure to narrow down on robotics technologies to achieve efficiencies and reduce costs. However, to maintain the health of the robotics industry, the acquisition strategy must be contingent on the evolution of industry. This thesis examines the defense robotics industry and historical technology S-curves for comparable industries and evaluates unmanned system acquisition strategies.



The current unmanned systems industry remarkably resembles historical periods in the aviation and information technology industries. Lessons learned in those industries should not be ignored as we enter the post-war period.



Findings

- *Unmanned systems funding is less than 1% of total DoD funding, despite insistence that unmanned systems development is a priority.*
- *Over 50% of total unmanned systems funding is planned to go to only three UAV programs, suggesting a narrowing down on technology.*
- *US government policies, such as export controls and airspace restrictions, hinder civilian market growth critical to advancing to the state of the art.*
- *Unmanned systems are uniquely poised to take advantage of streamlined acquisition processes.*

Recommendation

Given the immaturity of the industry, the DoD should increase funding to unmanned systems development and procurement, focusing more on exploration and RDT&E, until US government policies that inhibit civilian market growth are mitigated. The DoD should closely examine its policy of narrowing down on few designs, which consumes resources that could be spent on identifying breakthrough technologies.