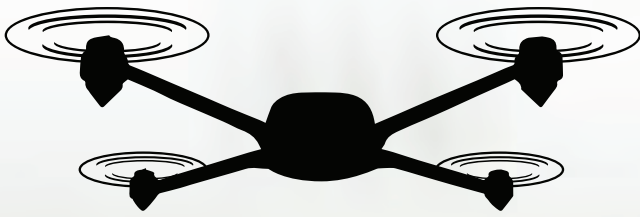


Significant Timeline Events for Small Unmanned Aircraft Systems (sUAS)

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This publication focuses on critical timeline events as they relate to the development and use of non-military unmanned aircraft and regulated air flight. The foundation of unmanned aircraft dates back to the early 20th century (1914-1918) and is certainly tied to military applications¹. Based on Charles Lindbergh's successful flight across the Atlantic in 1927, companies recognized the general public's interest in aviation and as a result began offering model airplane kits. The consumer model aircraft market continued to develop during the 1930s and 40s as a result of the miniaturization of gas engines and availability of balsa wood for aircraft frames². The development of autonomous unmanned aircraft has progressed rapidly in recent years as a result of the realization of useful applications and the miniaturization of electronics used in these advanced aircraft systems. The following provides some highlights of the history and development of small unmanned aircraft systems (sUAS) for non-military uses.



Drone Timeline

1926 to Present

1926 MAY 20	Air Commerce Act (cornerstone of the federal government's regulation of civil aviation) ³	2010	PrecisionHawk founded ¹²
1928 JAN 31	Cackle Corner Poultry Farm order issued regarding property owner's claims to airspace rights ⁴	2012 FEB 1	FAA Modernization and Reform Act of 2012 (safe integration of civil UAS into NAS by Sept. 30, 2015) ¹³
1936	Founding of the Academy of Model Aeronautics (AMA)	2013 MARCH	AUVSI publishes 'The Economic Impact of Unmanned Aircraft Systems Integration in the United States' ¹⁴
1946 MAY 27	United States v. Causby (regulated flight altitude over private land) ⁵	2013 DEC 1	Amazon's Jeff Bezos proposes package delivery by drones ¹⁵
1958 AUG 23	Federal Aviation Act establishes the Federal Aviation Administration (FAA) and abolishes its predecessor, the Civil Aeronautics Administration (CAA) ⁶	2013 DEC 30	FAA selects six sites for unmanned aircraft research ¹⁶
1981 JUNE 9	FAA AC 91-57, Model Aircraft Operating Standards ⁷	2014 MAR 6	NTSB ruling 'Huerta v. Pirker' (first-ever enforcement action against drone operator) ¹⁷
1991	Yamaha begins to market its first unmanned rotary aircraft, R50	2014 JUNE 18	FAA Interpretation of the Special Rule for Model Aircraft, 14 CFR (Code of Federal Regulations) 91 ¹⁸
1998	Draganfly founded by Christine and Zenon Draga ⁸	2014 SEPT 25	FAA exemptions for commercial UAS movie and TV production ¹⁹
2006	MikroKopter founded by Holger Buss and Ingo Busker ⁹	2014 NOV 18	NTSB reverses ruling on 'Huerta v. Pirker' ²⁰
	DJI founded by Frank Wang ¹⁰	2014 DEC 10	Congressional Hearing, Transportation and Infrastructure Committee: U.S. Unmanned Aircraft Systems: Integration, Oversight, and Competitiveness ²¹
2009	3D Robotics founded by Chris Anderson & Jordi Muñoz ¹¹		

2014
DEC 22 | Know Before You Fly program is launched²²

2015
JAN 6 | FAA 333 exemptions for realtor Douglas Trudeau (Tierra Antigua Realty, Tucson, AZ) and Advanced Aviation Solutions (Spokane, WA)²³

2015
JAN 8 | FAA issues UAS guidance for law enforcement²⁴

2015
JAN 27 | Drone crashes on White House lawn²⁵

2015
FEB 15 | NPRM (Notice of Proposed Rulemaking): Operation and Certification of Small Unmanned Aircraft Systems²⁶

2015
FEB 15 | Presidential Memorandum: Promoting Economic Competitiveness While Safeguarding Privacy, Civil Rights, and Civil Liberties in Domestic Use of Unmanned Aircraft Systems²⁷

2015
MAR 19 | FAA grants Amazon experimental airworthiness certificate²⁸

2015
MAR 23 | FAA streamlines UAS COAs for Section 333²⁹

2015
APR 9 | FAA summary grants speed UAS exemptions³⁰

2015
APR 30 | Amazon files patent for 'Unmanned Aerial Vehicle Delivery System' approved by USPTO³¹

2015
MAY 1 | FAA grants 333 Exemption to Yamaha for RMAX helicopter for commercial agricultural spraying³²

2015
MAY 6 | FAA announces UAS Pathfinder Program (industry partners on 3 focus areas related to 'line-of-sight')³³

2015
SEPT 2 | FAA releases updated Model Aircraft Operating Standards (AC 91-57A)³⁴

2015
DEC 21 | FAA requires all owners of **model aircraft** to register using an on-line system³⁵

2016
JAN 11 | FAA releases change to Model Aircraft Operating Standards (AC 91-57A)³⁶

2016
MAR 31 | FAA expands **on-line** sUAS registration to commercial and public users³⁷

2016
MAY 4 | FAA releases legal memorandum on 'Educational Use of UAS'³⁸

2016
AUG 29 | FAA Part 107 Rule (Operation and Certification of Small Unmanned Aircraft Systems) goes into effect³⁹

2017
MAY 19 | FAA Aircraft Registration for Model Aircraft overruled⁴⁰

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