

Unmanned Aircraft Systems Type and Capability Matrix

Purpose and Common Use

Hobby	Commercial	Government	Military
recreation personal use video extreme sport video wildlife viewing hobby competition	cinematography photography real estate agriculture athletic replay structure analysis disaster response	life and safety cost savings risk reduction improved accuracy disaster response	surveillance life and safety weapon

Flight Requirements

none	FAA approved COA same as manned aircraft	FAA approved COA same as manned aircraft	Military approval
line of sight operation			

Capability Accessories Size

real time downlink to ap available on all levels

flight duration less than 5 mins joy stick control Micro = und 1lb

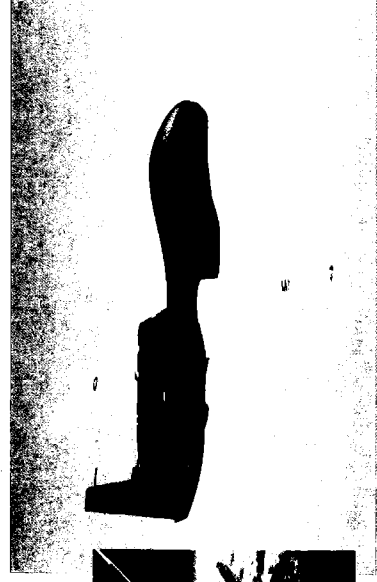
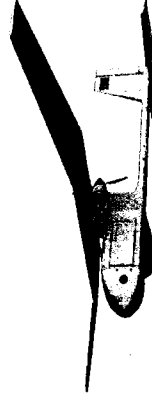
ready to fly out of box camera

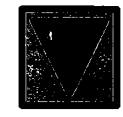
flight duration 5 mins - 30 mins image software Macro = 1 lb - 3 lb auto home function

flight duration 30 mins - 3 hours airport guard GPS Under 55 lbs safety features

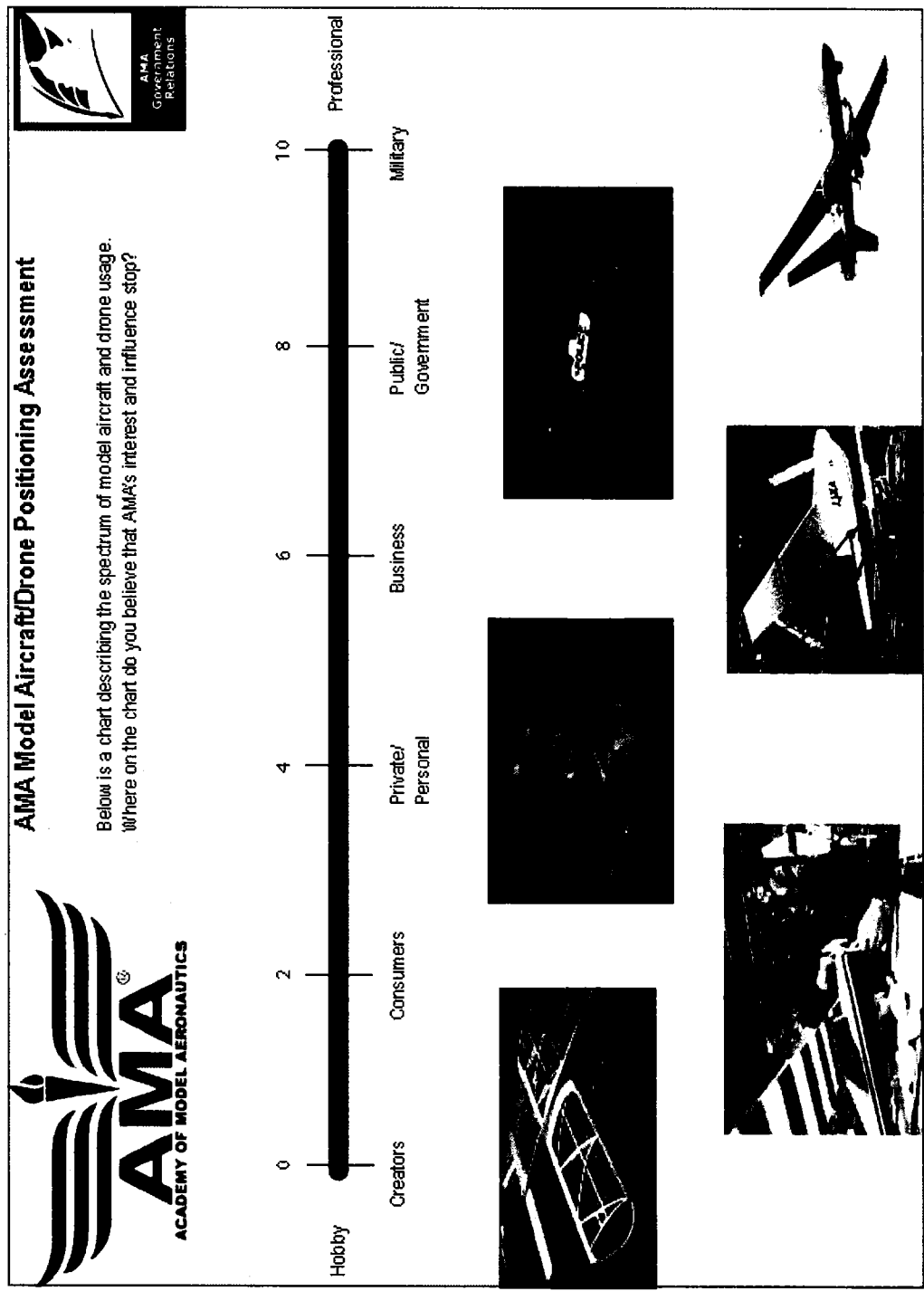
flight duration 3 hours - 24 hours pre-programmed flight plan Over 55 lbs specialized software

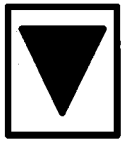
flight duration more than 24 hours advanced functionality Large





Positioning Graphic



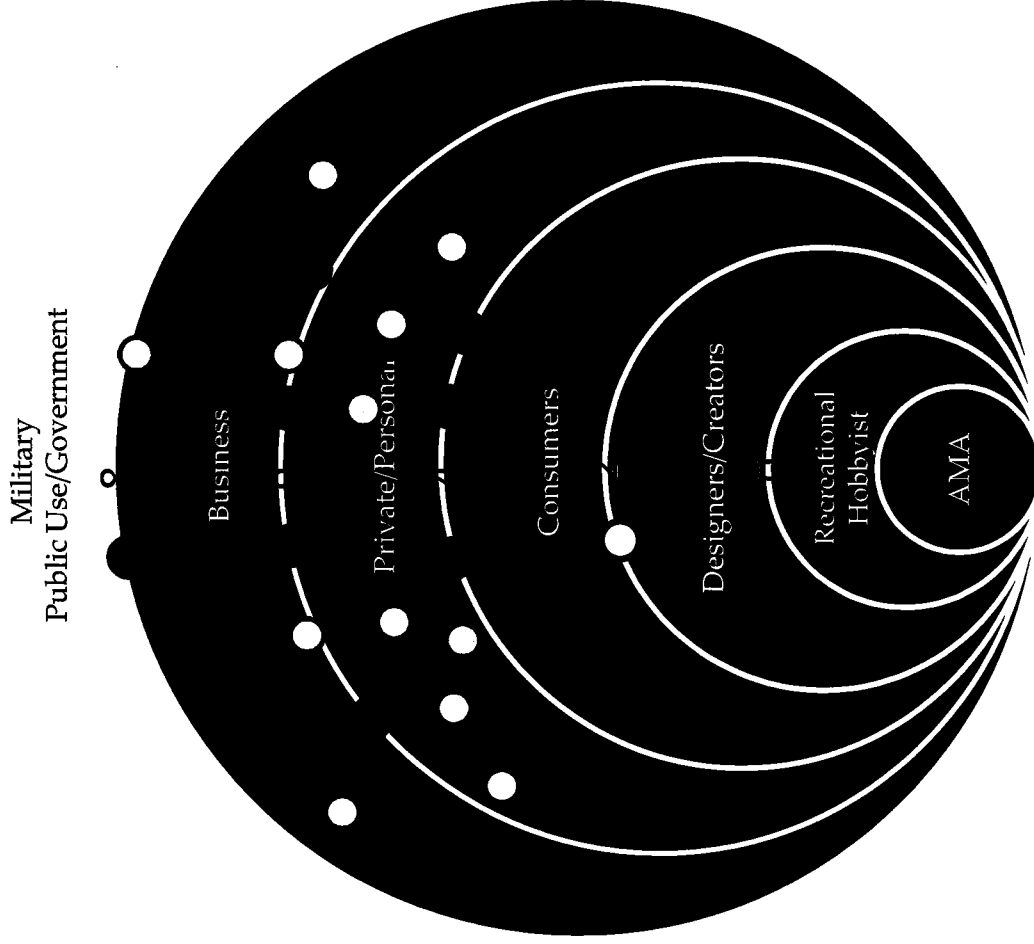


Definitions

- **Hobby:** Recreational users primarily involved for fun and/or competition.
- 0. Creators:** Designers, Manufacturers, Distributors, Retailers
- 2. Consumer:** Purchasers from mall kiosks/big box stores, attracted by intrigue/impulse (i.e. AR Drone)
- 4. Private/Personal:** Light commercial, incidental business application, community service, personal use (i.e. aerial photography, agriculture, search and rescue, journalism, etc.)
- 6. Business:** Commercial use, significant business purpose
- 8. Professional:** Exclusively business use, multi-million dollar community
- 10.Public/Government:** Law enforcement, surveillance purposes, border patrol
- 10.Military:** Warfare, military surveillance, defense
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AMA Universe

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RATING	sUAS Student Pilot	sUAS Private	sUAS Commercial	sUAS Instrument sUAS Instructor	sUAS Instrument UAS Type Rating Examiner
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PURPOSE & PRIVILEGES	Acquire sUAS training to qualify for sUAS Private	Operate sUAS for Private ops, acquire sUAS hours to qualify for Commercial	PIC sUAS for Comp or Hire of Sight (OLOS), applied to sUAS Private or sUAS Commercial	Instruct sUAS Private and Commercial pilots in BLOS operations	Required for all UAS over 55 lb, turbine powered, or capable of speeds of ??? FAA
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REQUIRED EXPERIENCE	None logged	To be determined	To be determined	sUAS Commercial	sUAS Private or sUAS Commercial
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KNOWLEDG TEST	Pre-solo Oral Exam	Private sUAS Ground Schools UAS written	sUAS Commercial Written	Instrument Written	Fundamentals of Instruction (unless exempt) UAS Instructor written	UAS Instrument/BLOS Appropriate systems and operations knowledge	Needs to be written into Part 183 Possess Certificates and rating for examination given
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MEDICAL	Student Pilot with demonstrated waivers for sUAS	Third Class with demonstrated waivers for sUAS	Second Class with demonstrated waivers for sUAS	Third or Second with demonstrated waivers for sUAS depending on Certificate held	None	Third or Second with demonstrated waivers for sUAS depending on Certificate held	Needs to be written into 183.23
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PRACTICAL TEST to include ORAL EXAM to determine adequate knowledge of applicable regulations & systems knowledge	Demonstrate competence of LOS sUAS TO/LND, Basic Maneuvers, lost link, Emergency notification, camera operation	Demonstrate command of aircraft & sensor system in advance maneuvers with precision. Recover from emergency scenarios.	Demonstrate control of the aircraft & sensors, emergency recovery procedures & waypoint manipulation without visual reference	Demonstrate ability to teach sUAS. Recover from student loss of control scenarios. Demonstrate command of required paperwork	Demonstrate command of UAS to level of certificates held, or limitations placed on certificate	Needs to be written into 183.23
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