SYLLABUS
Unmanned Aerial Systems Law
George Mason Law School Course 144
Summer 2016

Contact Information

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Class Overview

This is a survey course designed to provide students with an overview of the many Constitutional and other legal considerations relevant to the development, manufacture, and use of Unmanned Aerial Systems ("UAS").

The class will look at a number of typical issues that a UAS attorney will face. We will start with government contracting and the False Claims Act, since many clients will be looking to obtain contracts or subcontracts with the government. Next, two classes will be dedicated to looking at export regulations under the International Traffic in Arms Regulations, the Export Administration Regulations, and the Office of Foreign Asset Controls. The goal is to help students understand the purposes of the different agencies, how to classify products made or used by their clients, how to advise regarding an effective export compliance program, how to investigate and report export violations, and how to work with agencies when case law guidance is lacking.

Since the Federal Aviation Administration ("FAA") regulates the use of UAS in the National Airspace System ("NAS"), we will explore the Administrative Procedures Act and the FAA’s implementation of federal aviation law – both regulations of general applicability and those specifically applicable to UAS. We will then look at Constitutional issues, specifically Preemption, and discuss the proper boundary between the states’ authority to regulate under their Police Powers and the Federal Government’s Commerce Clause authority. We will then explore assorted civil and criminal issues such as invasion of privacy and trespass, Freedom of the Press, the Fourth Amendment, UAS insurance, and cyber security. The final substantive class will look at the ethics of and international laws governing military use of UAS.

Please note that email is the easiest way to reach me. I am happy to talk by phone, but please send an email to set up a time.
**Assignments**

There is no single textbook assigned for this course. UAS law is a new and rapidly evolving field, so I have complied a reading list of current legal readings for each class, many of which are available on the Internet or through Lexis/WestLaw. There are two books that you should purchase, and they are indicated in bold font. I have provided links to some articles that are available online but not necessarily easy to find.

The amount of reading will vary by class so I encourage you to read ahead. In general, for cases you should read both the background facts and the sections relevant to the class topic. Law review articles should be read thoroughly and you should be prepared to discuss any opinions asserted by the author.

I will provide you guidance during each class and/or by email to the class distribution list to target your reading for the next week.

**Class Schedule**

This class will meet from 6:00-7:50 pm over the course of seven weeks. Class attendance is expected and active participation will account for 15% of a student’s overall grade. Please contact me if you expect to miss a class.

There will be a final in two parts. Part I will be an essay-style exam, which will account for 50% of the student’s overall grade. There will be a final practical project, issued prior to the completion of the classes which students will have 2 weeks to complete and which will be the subject of the final class discussion. It will account for 35% of the overall grade and will consist of a review of a hypothetical client’s business for FAA, export, and contracting compliance. You will be required to review the hypothetical company’s compliance program, identify violations, and propose upgrades to the company’s practices. This project will be due prior to the start of the final class and students will be required to have an extra copy with them for discussion during the final class.

**Outline of Classes and Required Reading**

1. **Class One: Introduction to UAS**
   a. **Summary:** This class will provide a brief history of Unmanned Aerial Systems ("UAS") and an overview of current military and civilian UAS capabilities. There will be an overview of UAS terminology, the Administrative Procedures Act as it applies to UAS, and general FAA Airspace Regulations.
   b. **Required Reading**
      i. Search for current news reports relating to UAS and be prepared to discuss legal issues relating to those uses.


2. **Class Two: Government Contracting, Part I**
   a. **Summary:** This class will provide a brief introduction to Government Contracting as it relates to UAS, with a focus on responsibility determinations of a company desiring to bid or perform on contracts or small business and research grants, and the False Claims Act.
   b. **Required Reading**

3. **Class Three: Government Contracting, Part II**
   a. **Summary:** We will discuss compliance programs, False Claims investigations, the “implied certification” theory, and Suspension and Debarment – including Due Process challenges to these proceedings. There will also be a roundtable discussion.
   b. **Required Reading**

4. **Class Four: Export Compliance, Part I**
   a. **Summary:** This class will provide an overview of the three major export regulatory schemes in the United States – the International Traffic in Arms Regulations (“ITAR”), Export Administration Regulations (“EAR”), and Office of Foreign Assets Control (“OFAC”). We will look at the sources of law and regulatory implementation. The class will continue with a session in which we will discuss the Missile Technology Control Regime (“MTCR”) and its impact on the ITAR.
   b. **Required Reading**
      i. Arms Export Control Act (AECA) 22 U.S.C. §§2751-2799 (skim)
      ii. *Missile Technology Control Regime, Annex Handbook* (Read the Introduction and use a word search to read sections relating to “Unmanned Aerial Vehicles” or “UAV”)
      iii. Export Administration Regulations
         1. In depth: Sections 730-738, Commerce Control List 9A012
2. Skim: Commerce Control List Category 7, Sections 740, 746, 764, 772
   iv. International Traffic in Arms Regulations
      1. In depth: Parts 120, 121 (Categories VIII and XI only), 122, 126, 127
      2. Skim: Parts 121, 123-25
   v. Export Control Reform Finally Kicks In, Steptoe and Johnson (October 18, 2013), available at http://www.steptoe.com/publications-9114.html

5. Class Five: Export Compliance, Part II
   a. Summary: This class will consist of a lecture and discussion on terms used by the ITAR and EAR, categorizing UAS and UAS components for purposes of the ITAR and EAR, and assessing clients’ ability to comply with export requirements. We will also look at sanctions and enforcement actions to prepare for the next discussion in the next class.
   b. Required Reading
      i. Office of Foreign Assets Control Sanctions, available at https://www.treasury.gov/resource-center/sanctions/Programs/Pages/Programs.aspx
         1. In-depth: Iran, Cuba, Ukraine, North Korea, Rough Diamond Trade
         2. Skim: Others
      ii. United States v. Roth, 628 F.3d 827 (6th Cir. 2011)
      iii. U.S. Department of Commerce Bureau of Industry and Security Export Enforcement, Don’t Let This Happen to You! (July 2015)
      iv. ABA Working Group, Upjohn Warnings: Recommended Best Practices When Corporate Counsel Interacts With Corporate Employees (July 17, 2009) (provided)

6. Class Six: Export Compliance: Application in Legal Practice
   a. Summary: There will be a discussion about how to advise clients in an area of the law that is virtually devoid of case law and in which agencies have significant regulatory discretion. There will also be a practical discussion on how to investigate and report violations with a client.
   b. Required Reading:
      i. Review readings from last two classes
      ii. Be prepared to classify a component and identify violations

7. Class Seven: UAS Lawmaking
   a. Summary: This class will take a close look at the FAA Modernization and Reform Act of 2012 and Congressional hearings regarding UAS.
   b. Required Reading
      i. Public Law 112-95: FAA Modernization Reform and Act of 2012 (February 14, 2012)
      ii. U.S. House of Representatives Committee on Science, Space and Technology, "Unmanned Aircraft Systems (UAS) Research and


8. Class Eight: Introduction to UAS laws and regulations
   a. Summary: The class will look at current FAA regulations pertaining to UAS and the FAA rule-making process. We will also do a comparative review of foreign UAS regulations.
   b. Required Reading
      iii. Electronic Privacy Information Center v. The Federal Aviation Administration, (D.C. Cir. 15-1075), March 31, 2015
      iv. Rupprecht, Drones (in-depth review of sections assigned in class)

9. Class Nine: Separation of Powers and the Commerce Clause
   a. Summary: In the this class we will look at the relevant Commerce Clause jurisprudence to understand the division between the federal government’s authority to regulate airspace and a state’s police powers. This will include English Common Law and American case law from the founding to the present.
   b. Required Reading
      i. U.S. Constitution, Article I, Section 8, Clause 3; Article IV, Section 3, Clause 2
      ii. 49 U.S. Code § 40103(a)
      iii. Thurlow v. Massachusetts (The License Cases), 46 U.S. (5 How.) 513, 574 (1847)
      iv. Smith v Turner (The Passenger Cases), 48 U.S. (7 How.) 283 (1849)
      ix. Montalvo v. Spirit Airlines, 508 F.3d 464, 475 (9th Cir. 2007)
      x. Skysign Int’l v. City & County of Honolulu, 276 F.3d 1109, 1115 (9th Cir. 2002)

10. Class Ten: Navigable Airspace and UAS
    a. Summary: The class will look at the definition of “Navigable Airspace” and the boundary between public and private airspace. There will be
a discussion as to whether the seminal case in eminent domain
takings of private airspace, *United States v. Causby*, should be used to
define “private” airspace for UAS.

b. **Required Reading**
   i. Colin Cahoon, *Low Altitude Airspace: A Property Rights No-
   ii. Yehuda Abramovitch, *The Maxim ‘Cujus Est Solum Ejus Usque
Ad Coelum’ is a presumption rebuttable by circumstances*
1958)
   iv. *Braniff Airways, Inc. v. Nebraska State Bd. of Equalization &

11. **Class Eleven:** Trespass, Privacy, and Criminal Laws Applicable to UAS

   a. **Summary:** This class will cover the Common Law torts most
   applicable to UAS, specifically the Right to Privacy and Trespass. We
   will review Dean Prosser’s seminal work on Right to Privacy and the
   range of Privacy and Trespass laws across the states. There will be a
discussion as to whether current state laws are within the police
powers or should be preempted by federal regulation. We will briefly
review criminal remedies as well.

   b. **Required Reading**
          (D.Conn., February 18, 2014) (assorted pleadings, provided)

12. **Class Twelve:** Selected Civil UAS Issues

   a. **Summary:** The class will look at the relationship between drone-
journalists claim to Freedom of the Press and public safety
requirements. We will also look at how UAS implicate the Fourth
Amendment, corporate privacy, insurance carriers, and cyber
security.

   b. **Required Reading**
      i. Tom Schrimpf and Russ Klingaman, *Recreational Drones: Do
Homeowners’ Insurance Policies Provide Coverage?* (August 4,
2015), available at
264918.htm](http://www.claimsjournal.com/news/national/2015/08/04/264918.htm)
      ii. *United States v. Mitra*, 405 F.3d 492 (7th Cir. 2005)
      vi. Matthew R. Koerner, *Drones and the Fourth Amendment: Redefining
Expectations of Privacy*, 64 Duke Law Journal 1129-
1172 (2015), available at: 
http://scholarship.law.duke.edu/dlj/vol64/iss6/3

vii. Ajoke Oyegunle, *Drones In The Homeland: A Potential Privacy Obstruction Under The Fourth Amendment And The Common Law Trespass Doctrine*


13. **Class Thirteen**: Military UAS

   a. **Summary**: This class will look at legal issues relating to military UAS. We will briefly discuss the missions for which UAS have been used overseas by the United States. The class will provide an overview of the Rules of War and discuss the Rules of Engagement. We will conclude by discussing legal concerns with and legal theories regarding military UAS operations overseas.

   b. **Required Reading**
      


14. **Class Fourteen**: Final Roundtable Discussion

   a. **Summary**: We will discuss the practical project that is due at the start of class and other topics discussed throughout the previous thirteen weeks.

   b. **Required Reading**: Project due at the start of class.