

# Space Law

Law 261 – Fall 2024

Antonin Scalia Law School, George Mason University

Thursdays 4:00-6:00 p.m.

## Syllabus

### Contact Information:

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### Course Materials:

There is no written textbook for this class.

Key reading materials:

- 1) International Treaty regime. Students are expected to rely on these documents as their “textbook” for this course. A compilation of all U.N. materials can be found here (hereinafter referred to as “THE SPACE TREATIES”):  
<https://www.unoosa.org/res/oosadoc/data/documents/2017/stspace/stspace61rev20.html/V1605998-ENGLISH.pdf>
- 2) The U.N. also provides links to a number of U.S. laws and regulations related to outer space that might be helpful in your research. Some specific sublinks of that page appear in reading assignments further down the syllabus:  
<https://www.unoosa.org/oosa/en/ourwork/spacelaw/nationalspacelaw/index.html>
- 3) The GMU Scalia Law library website has a section dedicated to Space Law. I did not curate this site, but it might provide some helpful information and resources:  
<https://libguides.law.gmu.edu/c.php?g=1345401>
- 4) “Supplemental Materials” or “suggested reading” referenced below are not required for the course but are available for those interested in a deeper dive, or to provide research starting points for papers.

Additional mandatory and suggested reading materials are provided in the weekly session descriptions below and will be updated as the course proceeds throughout the semester.

## **Course Description:**

This course encourages students to explore the law that governs the exploration and use of outer space. This includes an understanding of the basic physics of space (including where space begins), the early history of human activity in space, and the key issues that propelled nations to enter into key outer space treaties. Students will learn to analyze whether treaty provisions are self-executing or require domestic legislation to become the force of law. From there, students will be introduced to the U.S. domestic law and agencies that regulate outer space activities. Students will explore such issues as the extraterritorial application of U.S. laws, the tragedy of the commons of orbital debris, the role and limitations of military uses of outer space, and the future of commercial outer space development.

## **Learning Outcomes:**

By the end of this course, students will be able to understand and analyze issues related to:

- The international treaty regime that governs outer space
- Key issues of international space law, their history, and U.S. policies related to these issues
- The U.S. domestic legislation that governs outer space
- The U.S. domestic regulatory system for commercial outer space activities
- Specific outer space use cases and how they might be treated under U.S. law and international treaty obligations

## **Class Format:**

The class meets on the Arlington Campus from 4:00 to 6:00 p.m. on Thursdays. Because of the school calendar, there will be 13 consecutive meetings of the class, with the last class being completed on November 14 (a week before the end of the school calendar). Please read all of the assigned material and be prepared for active class discussion. The class will be predominantly in lecture format, but I expect active participation by all students. I will rely on volunteers and may call on students who aren't volunteering regularly. Because much of outer space law has yet to be written, this is your opportunity to think about how basic principles of terrestrial law should be applied in an entirely new realm.

## **Evaluation and Attendance:**

Students will receive a single final course grade based upon a combination of a mid-term exam and completed final research paper. The grade in this course will be based 25% on the mid-term, 65% on the paper, and 10% on class participation. Those who choose not to present their papers are expected to participate in other aspects of class discussion. Class attendance and participation are an important component of a successful course, and

students are expected to be prepared for substantive discussions of the assigned material. Pursuant to George Mason Law School policy, final grades may be adjusted up or down by a single increment (e.g., from a B+ to an A-) based upon participation.

### **Mid-Term Exam:**

There will be a brief mid-term exam to be given at the end of Week 8 (October 10, 2024). It will be a series of multiple choice and one essay question. Thirty (30) minutes will be allotted at the end of the class for the exam. It will be a closed-book exam.

### **Final Paper Content and Deadline:**

The final paper may be written on any topic related to outer space law. Sample topics will be provided on the first day of class, but students are encouraged to write on a topic of particular interest to them. Law student papers typically identify a specific, unresolved legal problem and offer a solution, but they can also present ideas for new doctrinal frameworks, approaches, or developments. This is a scholarly writing—the student’s own analysis and conclusions should be thoroughly developed in the paper. The paper should be well-researched, enough to substantiate the student’s arguments, but the paper should present the student’s own perspective. No generative AI product is permitted to be used. A successful paper thoroughly defines the issue to be analyzed, recognizes structural, policy, political and other implications of the matter, and persuasively argues the author’s perspective while addressing any obvious contrary arguments. The final two classes have been reserved for short (8-10) paper presentations. While this is not mandatory, students are encouraged to present their papers and provide feedback for other students. These paper presentations will allow for a deeper dive into topics of interest to students.

**Proposed paper topics are due on or before October 10, 2024**, and should contain the title and a one or two paragraph summary of the thesis statement of the paper. **Outlines must be submitted on or before October 24, 2024**. Students are encouraged to check-in during the course to ensure that you are working towards a quality end product.

**Final research papers are due on or before November 22, 2024**, and should be at least 20 pages of typed, double-spaced text, with one-inch margins and no less than 12-point type. All papers must be paginated at the bottom of each page, and sources must be cited in footnotes rather than end notes. Please put your name at the top of the first page.

Faculty may not grant extensions of the deadline for final papers beyond the last date of the exam period, and all authority in this matter is delegated to the Assistant Dean, Student Academic Affairs. Requests and reasons for needing a deadline extension must be presented, with appropriate documentation, to the Assistant Dean, Academic Affairs.

**Class Recordings Prohibited:** Pursuant to Academic Regulation 4-2.2, no portion of a class session or an examination may be preserved by means of any an audio or video recording device. Any exceptions to this policy must be expressly permitted in writing by Professor Dunstan.

**Class Prep Assignments:** This syllabus sets forth the basic reading assignments for each class session. The syllabus will likely be supplemented each week with additional materials as outer space law is a rapidly evolving subject area. Every effort will be made to discuss the topics and assignments as indicated in the syllabus. However, exact dates for discussion of particular assignments may change as the semester progresses, and there may be occasions where the subject from one class will carry over to the next. Students will receive advance notice of any variance from the schedule in the syllabus.

**Student with Disabilities:** Students with disabilities may request academic accommodations as provided by federal law. Please contact George Mason University's Office of Disability Services (ODS) to request services (ods@gmu.edu, 703-993-2474).

**Campus Closure or Emergency Class Cancelation/Adjustment Policy:** If the campus closes, or if a class meeting needs to be canceled or adjusted due to weather or other concern, students will be contacted by email for updates on how to continue learning and for information about any changes to events or assignments. **If possible, the class will be switched to a virtual setting at the normal class time.**

## Schedule and Assignments

### Week 1 (8/22/24)

#### **An introduction to Space Law: Physics and History and Technology, Oh My!**

- What is space law?
- What is a space lawyer, and what do they do?
- The physics of space, and a glossary of critical terms
- Where does space begin (and why is that important)?
- A quick history of space exploration (pre-1967)
- The beginnings of space law

#### **Reading:**

- Skip Smith, A Space Law Primer for Colorado Lawyers, [https://www.cobar.org/Portals/COBAR/Repository/TCL/March2018/FEATURES SPACE LAW.pdf](https://www.cobar.org/Portals/COBAR/Repository/TCL/March2018/FEATURES_SPACE_LAW.pdf)
- The Global Legal Landscape of Space: Who Writes the Rules on the Final Frontier? <https://www.wilsoncenter.org/article/global-legal-landscape-space-who-writes-rules-final-frontier>

- Resolution 1721 A and B (XVI) of 20 December 1961, THE SPACE TREATIES, pp. 71-72
- Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, adopted December 13, 1963, THE SPACE TREATIES, pp. 45-47

**Video:**

- Sputnik Declassified -- <https://www.youtube.com/watch?v=0MayNS7ZF68>

**Supplemental Materials (availability uncertain):**

- V2: Nazi Rocket (available on Paramount+ -- <https://www.paramountplus.com/movies/video/pNNX9lHoeldbJTKL9waNDk4jsC7bg7h/> )
- Haley, Outer Space and Government, 1963
- McDougall, The Heavens and the Earth, A Political History of the Space Age (1985)

**Week 2 (8/29/24)**

**The Outer Space Treaty of 1967**

- Key Concepts
  - Freedom to explore and use outer space
  - No Appropriation of celestial bodies
  - No weapons of mass destruction in orbit
  - State responsibility and liability
  - Jurisdiction and control of space objects
  - No contamination; non-interference
- U.S. Ratification of the OST, key takeaways
- What are self-executing and non-self-executing treaty provisions?

**Reading:**

- Outer Space Treaty, THE SPACE TREATIES, pp. 3-9.
  - Senate Report on OST (link to be provided). Particularly pay attention to pages (of the report, not the PDF) Pp. 5-47; Pp. 60-65; Pp. 69-77; Pp. 81-85; Pp. 89-90; Pp. 99-101; Pp. 105-108; Pp. 115-117
- Medellin v. Texas, <https://www.oyez.org/cases/2007/06-984>

**Supplemental Materials:**

Listen to oral argument in Medellin v. Texas  
<https://www.oyez.org/cases/2007/06-984>

**Week 3 (9/5/24)**

**The Other Treaties in Force**

- Agreement on Astronaut Rescue (1968)
  - Duty to notify and rescue
  - Duty to return personnel
  - Duty to return objects
- Liability Convention (1972)
  - Absolute liability for harm caused on the ground or in the air
  - Fault liability for harm caused in space
- Registration Convention (1975)
  - Definition of launching state
  - Requirement to notify UN of launches
- Introduction to the problem of orbital debris

### **Reading:**

- Agreement on the Rescue of Astronauts, the Return of Astronauts, and Return of Objects Launched into Space, THE SPACE TREATIES, pp. 10-13.
- Convention on International Liability for Damage Caused by Space Activities, THE SPACE TREATIES, pp. 14-23.
- Convention on Registration of Objects Launched into Outer Space, THE SPACE TREATIES, pp. 24-29.
- Settlement of Claim between Canada and the Union of Soviet Socialist Republics for Damage Caused by “Cosmos 954,”  
[https://www.jaxa.jp/library/space\\_law/chapter\\_3/3-2-2-1\\_e.html](https://www.jaxa.jp/library/space_law/chapter_3/3-2-2-1_e.html)
- United States, Information Furnished in Conformity with the Convention on Registration of Objects Launched into Outer Space, August 2023 (read for format of notifications under the Registration Convention),  
[https://www.unoosa.org/res/osoindex/data/documents/us/st/stsgser\\_e1156.html/sere\\_1156E.pdf](https://www.unoosa.org/res/osoindex/data/documents/us/st/stsgser_e1156.html/sere_1156E.pdf).
- J. Dunstan, “Space Trash:’ Lessons Learned (and Ignored) from Space Law and Government,” 39 J. of Space L. 23 (2013) (skim for discussion of Registration Convention), <https://airandspace.law.olemiss.edu/wp-content/uploads/2020/07/ISL-39.1.pdf>.

### **Supplemental Materials:**

A Brief History of: The Kosmos 954 Nuclear reactor Crash (9:37 Documentary), <https://www.youtube.com/watch?v=YN7ifFam1Fk>

**Week 4 (9/12/24):**

## What Happened Next in the Treaty Regime

- The Role of the International Telecommunications Union
- The Bogota Declaration (1976)
- Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (1979)
  - New/expanded concepts added:
    - “Common Heritage of Mankind”
    - “Equality”
    - “promote higher standards of living and conditions of economic and social progress”
  - Make sample returns available to other states
  - Prohibition on ownership of Moon and “natural resources in place”
  - Establishment of international regime to govern exploitation of natural resources
- The Artemis Accords

## Reading:

- History of the ITU
  - Part 1: <https://www.itu.int/en/history/Pages/ITUsHistory.aspx>
  - Part 5: <https://www.itu.int/en/history/Pages/ITUsHistory-page-5.aspx>
  - WARC-71 (summary page only),  
<https://www.itu.int/en/history/Pages/RadioConferences.aspx?conf=4.95>
- The Bogota Declaration, [https://www.jaxa.jp/library/space\\_law/chapter\\_2/2-2-1-2\\_e.html](https://www.jaxa.jp/library/space_law/chapter_2/2-2-1-2_e.html)
- M. Finch, Limited Space: Allocating the Geostationary Orbit, <https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1216&context=njilb>
- Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, THE SPACE TREATIES, pp. 30-39.
- M. Listner, “The Moon Treaty: failed international law or waiting in the shadows?” <https://www.thespacereview.com/article/1954/1>
- The Artemis Accords, <https://www.nasa.gov/artemis-accords/>
- B. Bartoki & B. Nagy, The Artemis Accords, <https://www.cambridge.org/core/journals/international-legal-materials/article/artemis-accords/5874DB518591888E52CF2B816E4593F0>

## Supplemental Materials:

- I. Marboe, “What, if any, relevance does the Moon Agreement have to activities in space today?” [https://global.upenn.edu/sites/default/files/perry-world-house/Marboe\\_SpaceWorkshop.pdf](https://global.upenn.edu/sites/default/files/perry-world-house/Marboe_SpaceWorkshop.pdf)

## Week 5 (9/19/24):

### U.S. Domestic Legislation

- The NASA Act (1958)
  - Established NASA
- The Commercial Space Launch Act of 1984
  - FAA to license launch and license of U.S. space vehicles
- The Land Remote-Sensing Commercialization Act (1984)
  - Privatized Landsat
- The Commercial Space Launch Amendments Act of 1988
  - Clarifies insurance requirements for launch
- Patents in Space Act (1990)
- The Land Remote-Sensing Policy Act (1992)
  - Rescinded 1984 Act, directs the Dept. of Commerce to license purely private remote sensing systems
- Commercial Space Launch Competitiveness Act (2015)
  - Recognizes property rights in extracted resources from space
- Key Space Executive Orders, SPD-1 through SPD-4

### Reading:

- The NASA Act, <https://www.nasa.gov/history/national-aeronautics-and-space-act-of-1958-unamended/>
- The Commercial Space Launch Act of 1984, <https://www.govtrack.us/congress/bills/98/hr3942/text>
- The Land Remote-Sensing Commercialization Act (1984), <https://www.congress.gov/bill/98th-congress/house-bill/4836>
- The Commercial Space Launch Amendments Act of 1988, <https://www.congress.gov/bill/100th-congress/house-bill/4399>
- Patents in Space Act (1990), <https://www.congress.gov/bill/101st-congress/house-bill/2946>
- The Land Remote-Sensing Policy Act (1992), <https://www.congress.gov/bill/102nd-congress/house-bill/6133>
- Commercial Space Launch Competitiveness Act (2015), <https://www.congress.gov/bill/114th-congress/house-bill/2262/text>
- Key Space Executive Orders (SPD-1 through SPD-4) [https://www.spacefoundation.org/space\\_brief/space-policy-directives/](https://www.spacefoundation.org/space_brief/space-policy-directives/)

## Week 6 (9/26/24):

### The Agencies: Part I

- Remember, there has never been a National Space Act
- The importance of Administrative Law
  - *West Virginia v. EPA*
  - *Loper Bright Enterprises v. Raimondo*



- The Administrative Procedures Act
- The FAA and licensing launch and reentry

**Reading:**

- *West Virginia v. EPA* (skim),  
[https://www.supremecourt.gov/opinions/21pdf/20-1530\\_n758.pdf](https://www.supremecourt.gov/opinions/21pdf/20-1530_n758.pdf)
- *Loper Bright Enterprises v. Raimondo* (skim),  
[https://www.supremecourt.gov/opinions/23pdf/22-451\\_7m58.pdf](https://www.supremecourt.gov/opinions/23pdf/22-451_7m58.pdf)
- “A Guide to the Rulemaking Process,”  
[https://www.federalregister.gov/uploads/2011/01/the\\_rulemaking\\_process.pdf](https://www.federalregister.gov/uploads/2011/01/the_rulemaking_process.pdf)
- J. Dunstan, “Regulating Outer Space: Of Gaps, Overlaps, and Stovepipes,”  
<https://www.thecgo.org/research/regulating-outer-space-of-gaps-overlaps-and-stovepipes/>
- L. Montgomery, “So You Want to Launch a Rocket,” Ground Based Space Matters, (Jun. 30, 2017)  
<http://groundbasedspacematters.com/index.php/2017/06/30/so-you-want-to-launch-a-rocket-the-faa-is-here-for-you/>
- 51 U.S.C. §§ 50901; 50902 (2), (4), (7), (8), (10), (13), (15-17), (19-20); 50903-06; 50914, 50918-19
- L. Montgomery, “Should Congress Extend the Moratorium on Regulating Human Spaceflight,” the Center for Growth and Opportunity, February 28, 2023,  
<https://www.thecgo.org/research/should-congress-extend-the-moratorium-on-regulating-human-spaceflight/>

**Week 7 (10/3/24):**

**The Agencies: Part II**

- FCC
  - Spectrum allocation and licensing for satellite systems
  - Grants “market access” to the U.S. for foreign-licensed satellites
- NOAA
  - Commercial Remote Sensing Licenses
- NASA
  - Not a regulatory agency, but
  - Controls access to ISS
  - NFARs vs. Commercial procurement
- DOD
  - Critical role in launch range safety
  - Acquisition

**Reading:**

- P. Alexander, “The FCC: America’s Other Space Agency,”  
<https://reason.com/2022/11/15/americas-other-space-agency/>

- L. Montgomery & C. Bair, “Small Satellite Regulation in 2020,” <https://s3vi.ndc.nasa.gov/ssri-kb/static/resources/Small%20Satellite%20Regulation%20in%202020.pdf>
- 47 CFR § 25.137, Requests for U.S. market access through non-U.S.-licensed space stations.
- J. Dunstan, “Who Wants to Step Up to a \$10 Billion Risk,” Space News, June 21, 2021, <https://spacenews.com/op-ed-who-wants-to-step-up-to-a-10-billion-risk/>
- Commercial Remote Sensing Regulatory Affairs (website), <https://www.nesdis.noaa.gov/about/our-offices/commercial-remote-sensing-regulatory-affairs>
- CRSRA Update and Guidance Circulars, NOAA, August 24, 2022 (PowerPoint), <https://www.nesdis.noaa.gov/s3/2022-08/4.%20ACCRES%20Briefing%20Guidance%20Circulars%20082322.pdf>
- Licensing of Private Remote Sensing Space Systems, 85 Fed. Reg. 30790 (May 20, 2020) (read summary and general overview sections, skim the rest), <https://www.nesdis.noaa.gov/s3/2021-08/15%20CFR%20Part%20960%20Regs%202020.pdf>
- National Aeronautics and Space Administration (NASA) Preliminary Plan for Retrospective Analysis of Existing Regulations, May 18, 2011 (skim), <https://obamawhitehouse.archives.gov/files/documents/2011-regulatory-action-plans/NationalAeronauticsandSpaceAdministrationPreliminaryRegulatoryReformPlan.pdf>
- Air Force Safety Center, “Space Safety” (website), <https://www.safety.af.mil/Divisions/Space-Safety-Division/>

## **Week 8 (10/10/24):**

### **Orbital Debris**

- The problem: A Tragedy of the Commons
- Who regulates?
- Orbital Debris as a Weapon
- Orbital Debris *Mitigation vs. Remediation*

### **Mid-Term exam**

### **Reading:**

- Aerospace Corp., “Space Debris 101,” <https://aerospace.org/article/space-debris-101#:~:text=Small%20debris%20can%20damage%20critical.cost%20of%20operating%20in%20space.>

- J. Dunstan, “Space Trash:’ Lessons Learned (and Ignored) from Space Law and Government,” 39 J. of Space L. 23 (2013) (read remainder of article), <https://airandspacelaw.olemiss.edu/wp-content/uploads/2020/07/JSL-39.1.pdf>.
- J. Dunstan, “Regulating Outer Space: Of Gaps, Overlaps, and Stovepipes,” (reread section on orbital debris, pp. 48-51) <https://www.thecgo.org/research/regulating-outer-space-of-gaps-overlaps-and-stovepipes/>
- Orbital Debris Interagency Working Group, “National Orbital Debris Implementation Plan,” July 2022, <https://www.whitehouse.gov/wp-content/uploads/2022/07/07-2022-NATIONAL-ORBITAL-DEBRIS-IMPLEMENTATION-PLAN.pdf>
- 47 C.F.R. § 25.114(d)(14) (1991) (FCC) (Each applicant for a frequency license involving a satellite must provide “A description of the design and operational strategies that will be used to mitigate orbital debris, including the following information: . . .”).
- 14 C.F.R. § 417.129 (2006) (FAA) (“A launch operator must ensure for any proposed launch that for all launch vehicle stages or components that reach Earth orbit” that there is no contact between launch vehicle and payload; b) no debris generation from energy sources; and c) there is a safeing of systems and disposal after mission end of life.)
- 15 C.F.R. Part 960 (2020) (NOAA), Appendix 1 (“The applicant will submit a plan for post-mission disposition of any remote sensing satellites owned or operated by the applicant. If the satellite disposition involves an atmospheric re-entry the applicant must provide an estimate of the total debris casualty area of the system’s components and structure likely to survive re-entry.”).
- NASA, Process for Limiting Orbital Debris, NASA-STD-8719.14A (which puts into effect NASA Procedural Requirement 8715.6 and includes reference to NASA-Handbook (NASA-HDBK) 8719.14), [https://www.nasa.gov/wp-content/uploads/2018/01/process\\_for\\_limiting\\_orbital\\_debris.pdf](https://www.nasa.gov/wp-content/uploads/2018/01/process_for_limiting_orbital_debris.pdf)
- *International Dark-Sky Association v. FCC*, No. 22-1337, amicus brief of TechFreedom, <https://techfreedom.org/wp-content/uploads/2023/06/TF-22-1337-International-Dark-Sky-Association-Inc.-v.-FCC.pdf>, *decided on other grounds*.
- NASA, Cost and Benefit Analysis of Orbital Debris Remediation, [https://www.nasa.gov/wp-content/uploads/2023/03/otps\\_-\\_cost\\_and\\_benefit\\_analysis\\_of\\_orbital\\_debris\\_remediation\\_-\\_final.pdf?emrc=507712](https://www.nasa.gov/wp-content/uploads/2023/03/otps_-_cost_and_benefit_analysis_of_orbital_debris_remediation_-_final.pdf?emrc=507712)
- J. Carroll, Bounties on Orbital Debris?, 2019, <https://www.hou.usra.edu/meetings/orbitaldebris2019/orbital2019paper/pdf/6143.pdf>.

## Week 9 (10/17/24):

### Space Resources

- The promise of space resources
  - Minerals
  - Water
  - Energy
- Terrestrial Spinoffs
- Regulation of accessing and exploiting outer space resources

### Reading:

- J. Greason & J. Bennett, "The Economics of Space: An Industry Ready to Launch," Reason Foundation, June 2019 (read Executive Summary, skim the rest), <https://reason.org/wp-content/uploads/economics-of-space.pdf>
- H. Hertzfeld, "Space Economics and Law," The New Space Age: Beyond Global Order, Fall 2021, [https://global.upenn.edu/sites/default/files/perry-world-house/Hertzfeld\\_SpaceWorkshop.pdf](https://global.upenn.edu/sites/default/files/perry-world-house/Hertzfeld_SpaceWorkshop.pdf)
- J. Mankins, "A Fresh Look at Space Solar Power: New Architectures, Concepts, and Technologies," NASA, 1997, <https://space.nss.org/wp-content/uploads/1997-Mankins-Fresh1Look1At1Space1Solar1Power.pdf>
- The Hague International Space Resources Governance Working Group, 'Building Blocks for the Development of an International Framework for the Governance of Space Resource Activities' (November 2019), <https://www.universiteitleiden.nl/binaries/content/assets/rechtsgeleerdheid/instituut-voor-publiekrecht/lucht--en-ruimterecht/space-resources/bb-thissrwg--cover.pdf>
- M. Filijovic & S Sharei, "The U.N. needs to form a parliament to regulate space mining," Space News, May 13, 2024, <https://spacenews.com/the-un-needs-form-parliament-regulate-space-mining/>

### Supplemental Materials:

- G. O'Neill, "The High Frontier: Human Colonies in Space," <https://www.amazon.com/High-Frontier-Human-Colonies-Apogee/dp/189652267X>
- D. Wingo, "Moonrush: Improving Life on Earth with the Moon's Resources," 2004, <https://www.amazon.com/Moonrush-Improving-Earth-Resources-Apogee/dp/1894959108>

## Week 10 (10/24/24):

### Military in Space

- The Military in early spaceflight
  - Rocket development

- Surveillance
- The Treaties and the Military
- Creation of the Space Force
- Guest Lecture: Gen. Steve Kwast (USAF, retired)

**Reading:**

- Revisit, Outer Space Treaty, Art. IV, Moon Treaty, Art. III.
- “The Manned Orbiting Laboratory the Air Force Failed to Launch,” YouTube, <https://www.youtube.com/watch?v=5ffYSfkP3d8>
- R. Esparaza, “Event Horizon: Examining Military and Weaponization Issues in Space by Utilizing the Outer Space Treaty and the Law of Armed Conflict, 83 J. of Air Law and Commerce 334 (2018), <https://scholar.smu.edu/cgi/viewcontent.cgi?article=4086&context=jalc>
- NDAA 2020, <https://www.congress.gov/bill/116th-congress/senate-bill/1215/text#toc-H01868402DC744DD9B70393653E7F16A6>
- Air University, FAST SPACE: LEVERAGING ULTRA LOW-COST SPACE ACCESS FOR 21ST CENTURY CHALLENGES, January 13, 2017 (declassified version), [https://www.airuniversity.af.edu/Portals/10/Research/Space-Horizons/documents/Fast%20Space Public 2017.pdf](https://www.airuniversity.af.edu/Portals/10/Research/Space-Horizons/documents/Fast%20Space%20Public%202017.pdf)

**Week 11 (10/31/24):**

**The Future of Space Law**

- What’s next for the treaty regime?
  - Should the U.S. withdraw from the OST?
  - Should we reopen negotiations of the OST and/or the Moon Treaty?
  - Is a treaty on orbital debris possible?
- Are multilateral agreements such as the Artemis Accords the future of space law?
- What about human settlements and interstellar travel, what type of government will they have?

**Reading:**

- J. Hickman, “Still Crazy After Four Decades: The Case for Withdrawing from the 1967 Outer Space Treaty, The Space Review, September 24, 2007, <https://www.thespacereview.com/article/960/1>
- B. Israel, “Treaty Stasis,” [https://web.archive.org/web/20200311155623id\\_/https://www.cambridge.org/core/services/aop-cambridge-core/content/view/EC004CDD39BDF638E02435E9C DFA049C/S2398772300001860a.pdf/div-class-title-treaty-stasis-div.pdf](https://web.archive.org/web/20200311155623id_/https://www.cambridge.org/core/services/aop-cambridge-core/content/view/EC004CDD39BDF638E02435E9C DFA049C/S2398772300001860a.pdf/div-class-title-treaty-stasis-div.pdf)

- J. Nelson, “The Artemis Accords and the Future of International Space Law,” American Society of International Law, December 10, 2020, <https://www.asil.org/insights/volume/24/issue/31/artemis-accords-and-future-international-space-law>
- “From Flag Burnings to Bearing Arms to States Rights: Will the Bill of Rights Survive a Trip to the Moon?,” Proceedings of the Tenth Princeton/AIAA/Space Studies Institute Conference on Space Manufacturing, 1991, (copy to be provided)
- A. Lee, The Future of the Law on the Moon, 88 J. AIR L. & COM. 3 (2023) (skim), <https://scholar.smu.edu/cgi/viewcontent.cgi?article=4216&context=jalc>
- P. Gesl, “Preparing for the Next Space Race: Legislation and Policy Recommendations for Space Colonies,” Air University Masters Dissertation, April 2018, [https://www.airuniversity.af.edu/Portals/10/AUPress/Papers/AP\\_Gesl\\_Preparing\\_for\\_the\\_next\\_Space\\_Race.PDF](https://www.airuniversity.af.edu/Portals/10/AUPress/Papers/AP_Gesl_Preparing_for_the_next_Space_Race.PDF)

**Week 12** (11/7/24):           Set aside for class presentations

**Week 13** (11/14/24):       Set aside for class presentations