

Inn of Court – Feb. 2021

Good evening, ladies and gentleman, and welcome to the Gus J. Solomon February Pupilage Group production of MasterSpace Theater. This past year has been particularly difficult for the arts that rely so heavily on your patronage. It's been nearly a year since any of us have had the pleasure of seeing a show. But tonight, we are pleased to bring you – Starry Decisis: Outer Space Law in Four Acts.

MasterSpace Theater Slide

Playbill Slide

We invite you now to open your Playbill and learn about the actors and actresses who will be performing for you this evening.

Playbill Slide 1

[Read Bios]

Playbill Slide 2

[Read Bios]

Playbill Slide 3

[Read Bios]

All of our performers are members of the Space Actors Guild.

Tonight's performance was inspired by the science fiction movie, *The Martian*, featuring Matt Damon. Set in 2035, the crew of the Ares III mission to Mars is exploring Acidalia Planitia on Martian solar day (sol) 18 of their 31-sol expedition. Due to an incoming storm, the crew evacuates early, leaving behind their fellow astronaut, Mark Watney, who was presumed dead after the storm hurtled debris and punctured Watney's spacesuit. Watney later awakens to discover that he has been abandoned on Mars with the next mission arriving in four years. Watney struggles to survive alone on a desolate, uninhabitable planet. In the process, he learns to make potato with his crewmate's feces, listens to disco in his Hab, and philosophizes on the laws that apply on Mars.

Let's take a listen:

Mars Clip Slide

I don't know about you, but when I watched this movie, I realized that it was a fitting COVID film. Damon filmed the entire movie as a one-man show, stranded alone on a barren planet, taking up new hobbies and filling time, hoping he'll one-day interact with humans before he dies. Sound familiar?

Act I Slide

But on to tonight's performance. We open with Act I: The Command Center where AmazonX Commander Albrecht has contacted Senior Vice President of Sales & Marketing Michael Shatterling for a Mission Update. Shatterling, unsure of the laws governing space, contacts Special Attache to the UN High Subcommittee on Space Things, Amelie VanKrocker.

Ladies & Gentlemen, without further ado, we bring you Starry Decisis . . . AAAAAAND ACTION!

Act 1: The Command Center

Michael Shatterling, Senior V.P. of Sales & Marketing (Sam)
UN Attaché Amelie VanKrocker (Katie)
Commander Albrecht (playing herself)

COMMANDER: Shatterling, I need a mission update. Do you copy?

SHATTERLING: I copy you, commander. We've got a one-two-niner on the five-oh about 4,000 clicks out.

COMMANDER: Lay American English, Shatterling. I promoted you to this position because you're the best communicator in the organization.

SHATTERLING: Understood, Commander. It's just that after working in sales and marketing for the last 20 years, it's a bit of an adjustment overseeing AmazonX's first manned rocket mission. One charged with terraforming the dark side of the moon, at that. And dropping a hundred-mile-long train of satellites into low earth orbit while it's at it. All arguably in violation of the spirit, if not the letter, of international law.

COMMANDER [*raises hand, Vader style*]: Having doubts about our mission or your ability to oversee it, Shatterling? You can be easily replaced.

SHATTERLING [*choking, clutching at neck*]: Ugh...eck...Commander...no...of course not. You and the mission have my undying loyalty and commitment.

COMMANDER: Shatterling! Are you OK?

SHATTERLING [*loosening necktie*]: Yes, necktie just a bit too tight.

Commander: Good. As I was saying, I would hate for the Dark One to learn that one of his finest pupils has grown a conscience.

[SLIDE - BEZOS]

COMMANDER: International law. Let's get on with it.

SHATTERLING: Yes, of course. Let me hail Special Attaché to the UN High Subcommittee on Space Things, Amelie VanKrocker, now.

VANKROCKER: Special Attaché to the UN High Subcommittee on Space Things Amelie VanKrocker speaking.

SHATTERLING: Attaché VanKrocker. This is Michael Shatterling, Senior VP of Sales & Marketing at Amazon and Mission Control Subcommander at AmazonX.

VANKROCKER: Look, if this is about me cancelling Prime, I really wasn't using it and—

SHATTERLING: Not at all, Madam Attaché. Commander Albrecht and I need your succinct overview of the UN's Outer Space and Moon Treaties.

[SLIDE – OUTER SPACE TREATY]

VANKROCKER: Right, of course. So anyway. Let's start with the Outer Space Treaty:

- The Treaty was adopted by the UN General Assembly by resolution 2222, opened for signature on January 27, 1967, and entered into force on October 10, 1967.
- The OST is the basis of international space law. As of October 2020, there are 110 parties to the treaty, with an additional 89 countries that have signed but not yet ratified it.

SHATTERLING: Has the United States signed and ratified the treaty?

VANKROCKER: Absolutely.

COMMANDER: Let's get to brass chips. What does the thing say?

VANKROCKER: OK. The treaty is actually very short by UN standards, just 17 articles. Compare that to the Law of the Sea Treaty with hundreds of articles. The treaty's gist is to limit arms in space.

SHATTERLING: If I may, Madam Attaché. We have two AmazonX Astronoids en route to the moon now. By my count that's four arms. Are we over the limit?

COMMANDER: Shatterling!

VANKROCKER: By arms I mean weapons. In particular, the treaty prohibits nuclear weapons. That term is undefined, however. And the treaty doesn't prohibit non-nuclear weapons or military activities in space.

COMMANDER: Then why are we even talking about this treaty? The Dark One ordered this mission to plunder the moon's surface for precious minerals before terraforming it to establish Amazon's 3HQ. We're in this to win trade wars, not start real ones.

VANKROCKER: Well, the Outer Space Treaty does more than just prohibit nuclear weapons in space, Commander. It also provides that the moon and other celestial bodies are to be used only for “peaceful purposes.” Nations are free to explore. But no party to the treaty can exercise state sovereignty over the moon, celestial bodies or space itself.

SHATTERLING: Wow, peace, the moon, and celestial bodies. That sure sounds like a treaty from the late 60s. What does it say about space trips?

COMMANDER: Shut it, Shatterling. AmazonX never signed the treaty, so I still don’t get why I care.

VANKROCKER: You care, Commander, because the treaty also governs non-governmental entities in outer space.

[SLIDE – OUTER SPACE TREATY: THE DETAILS]

- Article VI provides that “the activities of non-governmental entities in outer space, including the Moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty.”
- Further, State Parties shall bear international responsibility for national space activities whether carried out by governmental or non-governmental entities.
- A historical side note. The Soviets wanted to ban non-governmental activity in space, but the US objected on the ground that it’s a market economy. So, the treaty allows for commercial activity in space, but the tradeoff is that governments obligated themselves to supervise commercial actors in space.

COMMANDER: Shatterling. Did you pull a permit for this mission or not?

SHATTERLING [*waiving government form*]: Got it right here, chief. I gotta tell you though, the line was worse than the DMV. They had only two clerks and a roomful of—

COMMANDER [*cutting Shatterling off*]: Right. So, Attaché VanCrocker, it looks like we have all the authority we need to plunder the moon. Also, that hundred-mile-long satellite train. It will be a glorious spectacle for everyone on earth’s surface to behold! So bright from the sun’s reflection that we’ll never have to see Venus on our horizon again!

[SLIDE – SPACEX TRAIN ARCING THROUGH NIGHT SKY]

VANCROCKER: That’s bright. But yes, if AmazonX has US approval for this mission, then it’s compliant with the treaty’s terms. Underscoring that space is open for business, Congress passed the US Commercial Space Launch Competitiveness Act in 2015. This legislation provides that US-based companies have the right to own anything they collect from space. The US argues that the Outer Space Treaty doesn’t prohibit private extraction of space resources. While it’s possible that other countries might take a different view of the question, even the US agrees that the treaty tasks signatories with “avoiding the harmful contamination” of celestial

bodies. And on the flip side, countries must ensure that that any extraterrestrial materials they return to earth won't harm the planet.

COMMANDER: We can abide. And what of the moon treaty?

VANCROCKER: You care less about the UN Moon Agreement, as it's known, then you do the Outer Space Treaty.

COMMANDER: I'm listening.

VANCROCKER: After more than ten years of negotiations following the Outer Space Treaty, the UN opened the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies for signature in December 1979.

SHATTERLING: Let me guess. There are more than a hundred nations party to this treaty just like there are to the Outer Space Treaty.

VANCROCKER: Wrong. As of January 2019, only 18 states have signed on to the treaty.

SHATTERLING: Only 18! They didn't even reach the drinking age!

VANCROCKER: Not only that, but none of the states that are parties to the Moon Agreement even engages in self-launched human spaceflight. Think Armenia and Belgium, not the US and Russia. Compared to the Outer Space Treaty, the Moon Agreement adds two new concepts that aim to address the exploitation of resources in outer space:

- First, it calls for the “common heritage of mankind” to be considered in outer space activities.
- Second, it calls for participating countries to produce a regime that lays out the appropriate procedures for the moon's orderly mining.
- Multiple conferences failed to produce any consensus by which signatories could fill in any of the details for either concept, however.

COMMANDER: While I appreciate this wealth of useless information, Attaché, I'm growing tired of hearing about it.

VANCROCKER: I understand, Commander. But I have one more piece of information, this one not so useless. In April 2020, then President Trump entered an Executive Order on “Encouraging International Support for the Recovery and Use of Space Resources.”

SHATTERLING: This sounds like one of his better executive orders.

COMMANDER: Shatterling! Out with it, VanCrocker. We have two highly compensated Astronoids who need our attention now.

VANCROCKER: In a nutshell, the order declares it the policy of the United States to encourage international support for the public and private recovery and use of resources in outer space, albeit consistent with applicable law. More than that, the US does not consider the Moon Agreement to be an effective or necessary instrument to guide nation states regarding the promotion of commercial participation in the long-term exploration, scientific discovery, and use of the moon, Mars, or other celestial bodies. The Secretary of State shall object to any attempt by any other state or international organization to treat the Moon Agreement as reflecting or otherwise expressing customary international law.

COMMANDER: So outer space is up for sale—just as the Dark One wants it. Shatterling, hail our overpaid Astronoids!

SHATTERLING: Aye-ffirmative, Commander!

AAAAAND SCENE!

Act II Slide

With a better understanding of the UN Outer Space Treaty and Moon Agreement, we turn now to the AmazonX Astronoids on their mission to mine the planets and commercialize the galaxy as they examine . . .

Slide

The Rule of Capture

Act 2: Astronoids in Space

Astronoid 1: Erling
Astronoid 2: Kristen
Alien: Gloria

[SLIDE: ACT II- ASTRONOIDS IN SPACE]

[SLIDE: EARTH IN HORIZON OVER MOON]

Astronoid 1: That was a decent landing. Helloooooo, moon.

Astronoid 2: We certainly aren't in Kansas anymore.

Astronoid 1: So what's our objective again?

Astronoid 2: Exploit this rock for all it's got before any other company or country gets here. There's water, precious metals like gold and titanium. It's resource rich!

Astronoid 1: This reminds me of my days back on earth, mining my own land for oil. Drill, baby, drill. Ah, the good old “Rule of Capture.”

[SLIDE: RULE OF CAPTURE]

Astronoid 2: Rule of Capture, what do you mean?

Astronoid 1: I’m surprised you don’t know it. It goes all the way back to English common law. You know, the days of yore and such?

Astronoid 2: pray do tell?

[SLIDE: RULE OF CAPTURE – Definition-ish]

Astronoid 1: It’s basically a rule of non-liability for “captured” natural resources, like gas, oil, game animals, water. The general rule is that the first person to "capture" such a resource owns that resource. In terms of mining, it means the person who acquires or “captures” a substance from the subsurface of their land owns it, even if it comes from the subsurface of their neighbor’s land.

[SLIDE: RULE OF CAPTURE – Texas v. Other states]

Some states (like Texas) have adopted the “ownership in place” rule: you own the resources/substances beneath your land, subject to the rule of capture. Other states (like Oklahoma) adopted the “exclusive right to take” rule – that is, you do not own the resources/substances beneath your land, rather the landowner merely retains the exclusive right to capture the substances.

[SLIDE: RULE OF CAPTURE – Main different is REMEDIES]

The main difference between the two approaches is remedies.

[SLIDE: RULE OF CAPTURE – So WHAT]

Astronoid 2: wow, seems like it encourages an over-extraction of resources by landowners before their neighbors can capture them.

Alien: There are some limits to the doctrine.

[SLIDE: RULE OF CAPTURE – IN RESPONSE]

Astronoids 1 and 2: whoa, an alien!

Alien: Actually, you two are the aliens, invading my land. So, you should be careful about what you try to capture. The Rule of Capture does not protect individuals when the resources were

overdrawn for malicious purposes or when the resource is not put to beneficial use, for instance. You also can't drill on a slant to try to extract the substances below your neighbor's land.

Governments have also adopted conservation acts with regulations aimed to limit drilling, protect aquifers, and ensure maximum recovery of the resources.

And since this is my land, you should consider getting your precious resources elsewhere.

[SLIDE: RULE OF CAPTURE – Large and defunct satellites abound]

Astronoid 2: Well, there is a lot of satellite and orbital debris out here. Large and defunct satellites abound!

Astronoid 1: And what exactly about them?

[SLIDE: *image of satellite orbits*]

Astronoid 2: Maybe we can capture those for profit. There are post-mission satellites that are still floating around in space. Owners of satellites generally take one of two actions post mission: 1) leave the satellite in its mission orbit or 2) move the satellite out of the mission orbit into its disposal orbit. There is a lot of international interest in what happens with these satellites, in large part to try to prevent and contain orbital debris. You know, satellites can run into each other or other items, breaking into thousands of pieces that can cause further destruction?

Alien: super dangerous!

[SLIDE: RULE OF CAPTURE – Large and defunct satellites abound]

Astronoid 2: There are a couple of statutes governing post-mission procedures and orbital debris worth discussing.

[SLIDE: 51 USC s. 31501 – Orbital Debris]

Title 51 governs national and commercial space programs. Within that title, section 31501 gives general authorization to the NASA Administrator for development or acquisition of technologies that will assist in the decrease of orbital debris risk.

[SLIDE: 42 USC s. 18441 – National and Int'l Orbital Debris Mitigation]

42 USC section 18441 recognizes the need for both a national and international effort to develop an approach to orbital debris remediation. It recognizes the need to halt orbital debris creation and develop measures to mitigate further debris.

Because of the emphasis on remedying orbital debris, US federal agencies have created regulations that require US satellite operators to perform end-of-life satellite disposal. For example, the Federal Communications Commission (FCC) established a set of regulations that

all applicants must follow to receive a license for a communications satellite. This includes the orbit where post-mission satellites can reside.

[SLIDE: *graphic of defunct satellites AND SNAG IT*]

Astronoid 1: but don't the original owners of these satellites retain their property rights post-mission? How can we capture them? Can we just snag them?

[SLIDE: *Abandonment of property*]

Astronoid 2: Well, we could apply the abandonment of property doctrine. At its baseline, the abandonment of property is the unilateral transfer of ownership. Generally courts consider property abandoned when an owner has thrown away or voluntarily forsaken possession of an item. Such property "returns to the commons." It becomes available for the first finder to capture and possess it. A seminal case is *Foulke v. New York Consolidated Railroad* from New York. Case law sets out certain criteria to consider: an owner must (1) perform a manifest act that (2) shows his or her intent to forsake the property, and (3) the action and intent must occur concurrently.

Astronoid 1: How does this test apply to satellites?

Astronoid 2: Well, arguably the owner has not abandoned a satellite that has been properly moved to its specific post-mission disposal orbit. There is no manifest act of abandonment when it's moved to the location it's supposed to be and still properly registered. We can't try to capture these satellites. But if a satellite remains in its mission orbit after the mission is complete, arguably it has been abandoned. The owner's failure to act after the satellite completed its mission satisfies the first prong of the test – manifest act – which would require us to consider the owner's intent, which could involve even asking the owner what they intend to do or looking at how the satellite is registered.

Astronoid 1: that actually doesn't sound so straightforward or easy. Doesn't look like we can easily just grab any satellites that we see orbiting around. Lots of research is required for each satellite! How will we make money that way?

[SLIDE: *RULE OF CAPTURE – Mining Asteroids*]

Alien: You want big money? why don't you mine asteroids instead of my moon? You could head to the asteroid belt between Mars and Jupiter – that's where most asteroids are located. They are made of gold, silver, platinum, and other precious metals. I've read that NASA estimated the value of the asteroids could be \$700 quintillion – the equivalent of \$95 billion dollars for each one of you humans on your planet Earth. Just one asteroid can hold platinum worth \$25 to \$50 billion dollars.

[SLIDE: *RULE OF CAPTURE – Mining Asteroids 2*]

Asternoid 2: But how to mine in space? Getting all that heavy equipment to the asteroid belt (or even the moon) ain't easy. Low gravity, vacuum environments will also affect the ability to mine and require special mining techniques. It's not an easy "finders keepers" situation.

Asternoid 1: Oh, I have an idea, there are precious metal asteroids that are just flying around. We can do a "bag it and tag it" approach under the Rule of Capture. I've heard of a Cal Tech study that shows soon, an unmanned craft may be able to locate and target an asteroid, loiter around it to determine its spin, and ultimately catch it in orbit in a drawstring bag of sorts. Apparently you can then take the captured asteroid back to the moon, deposit it into lunar orbit, and pick it up as you're able. Let's do that.

Let's go get that asternoid! Drill, baby, Drill!

AAAAAND SCENE!

Act III Slide

You see, ladies and gentlemen, Greta Thunberg was wrong. We don't have just one planet. When we have bulldozed the rain forests, filled the oceans with plastic, and melted the polar ice caps, there's a whole galaxy of planets out there for the human race to destroy.

And if that isn't scary enough, this uncharted territory is riddled with space pirates looking to capitalize on all that extraterrestrial booty.

[TITLE SLIDE: Pirates in Space]

Kendall: Cambell, is that you??

Kendall: Cambell, are you there (breaking 4th wall)
Cambell appears as a cat

Cambell(as a cat): I'm here

Kendall: I believe you have a filter turned on in the video settings. You might want to

Cambell: uhhh . . . Were trying . . . can you hear me Kendall?

Kendall: I can hear you I think it's a filter . . .

Cambell: It is and I don't know how to remove it, I've got my assistant here she is trying to uhh . . . I'm prepared to go forward with it. I'm here live . . . I'm, I'm not a cat.

Kendall: I can see that . . . well, let's take it from the top.
Cambell fixes the filter and appears as herself

Kendall: Cambell is that you??

Campbell: Kendall?

Kendall: It is you! When did you join the Ohnaka Gang???

Cambell: Well, I figured if Hando can capture Generals Skywalker and Kenobi and live to tell the tale he's a good leader to fall in place behind.

Kendall: Fair fair. Well, welcome to our Private Inter-galactic Resource Assessment Testing and Extraction team. P-I-R-A-T-E for short.

Campbell: So what is this mission about, I only heard the highlights.

Kendall: We caught wind a company is mining for minerals on a nearby asteroid, and we are going to . . . relieve them of the burden of transporting all that ore.

Campbell: Which Company is it?

Kendall: AmazonX, from USA

Campbell: Shouldn't we be worried about the US coming after us for invading their territory.

Kendall: That's the thing, the US cannot claim territory in outer space.

[SLIDE 2: Treaty on Principals . . .]

Cambell: What do you mean?

Kendall: Traditionally, nations captured new territory through the cunning use of flags. Sovereign nations were able to then impose their laws on their new territory. But in space its different, Earth nations were so concerned the would blow each other up they decided to sign away all rights to expand their territory into outer space. But because AmazonX is a corporation I think it is different.

Cambell: Oh I just read something about corporations operating in space and why they are not bound by the same rules as countries.

[SLIDE 3: Private Entities . . .]

Kendall: Ooo what did it say?

Cambell: Back in the day, people only ever envisioned countries having the finances to be able to explore space. There are references to Private Entities operating in space, and requiring authorization from their hope state but it is silent on private entities owning terrestrial bodies.

There are only rules stopping countries from staking a claim on territory not individuals or corporations. However, there are tons of private companies that are funded at least in part by

governments. It gets messy and rules about quasi-governmental corporations are unclear. Countries are making their own rules to govern that issue.

Kendall: Interesting, but we are approaching an asteroid, does that really count as territory? Couldn't they also be considered chattel? Does it even matter?

[SLIDE 4: Should Asteroids . . .]

Cambell: It just depends on who you ask! Chattel is personal possession. But there is no clear scheme to define what asteroids are. Conceptualizing asteroids as chattels would simplify ownership and side-step some pesky issues about claiming territory.

Kendall: I suppose that would also increase the incentives for private companies to go after their resources.

Cambell: Yes. These days, everyone is incentivized to treat the non-appropriation principle as a restriction on sovereign claims to land not an obstacle to outer space resource extraction.

[SLIDE 5: U.S. Commercial . . .]

In 2015, the United States passed the U.S. Commercial Space Launch Competitiveness Act. it specifically contemplates U.S. citizens performing commercial recovery in what would be a clear appropriation of asteroid and space resources. The law in pertinent part states that such U.S. citizens:

shall be entitled to any asteroid resource or space resource obtained, including to possess, own, transport, use and sell the asteroid resource or space resource obtained in accordance with applicable law, including the international obligations of the United States

Pretty sure that means that we can take whatever we want. Put another way, lots of people want to treat space like the Atlantic Ocean. No state can colonize it, but anyone can harvest its fish.

Kendall: So we should have just the same right to help carry away those resources as anyone else?

Cambell: IT DEPENDS! if you're a US or Luxembourg company and you extract a resource, you own the resource. They've interpreted the Outer Space Treaty to say that it doesn't preclude ownership of the extracted minerals.

[SLIDE 6: The Moon . . .]

Other countries would say we have no right at all. Most of those countries signed the Moon Treaty. The Moon Treaty also includes celestial bodies and asteroids as well, and it says the moon and other celestial bodies are the common heritage of mankind. They can't be owned or mined. None of the space faring countries signed onto that.

However, based on a Ninth circuit court case it seems that at the very least the United States rejects the idea that its own citizens may enforce ownership of bodies in outer space without national recognition of those rights. That case was in 2003 and before the latest legislation encouraging development in space.

Kendall: The other issue is once we have the minerals in our possession, do we need to pay royalties, and to whom?

Cambell: What are royalties?

[SLIDE 7: Royalties . . .]

Kendall: On Earth royalties are funds paid by those extracting minerals from the land to individuals or governments that have an ownership interest in the land. Royalties come in a variety of forms, generally as a percentage of the value of the extracted minerals.

Each nation state treats them slightly different. In some countries royalties are exclusively held by the land owner and severed from the land itself, or even severed from the right to mine. In other countries, minerals are considered a joint resource of the country, so regardless of who owns the land, royalties are still paid to the government when minerals are extracted. In the US most states demand some form of royalty on land owned by the state, but the federal government does not demand royalties from minerals extracted from federally owned land, only a mining fee. This is direct counterpoint to other extracted substances such as oil and gas where extractors are required to pay royalties to the federal government when they are extracted from or underneath federal land.

Cambell: But if no country can own terrestrial bodies are royalties even an option here?

Kendall: IT DEPENDS! The majority position is you can keep resources you extract in outer space and not pay royalties on resource. But if an asteroid is chattel and a private corporation can claim to own it, could they subsequently claim royalties on later when another company lands on the asteroid. There is no clear answer, and there certainly isn't anybody authorized to answer the question or enforce the answer.

So why wouldn't we go steal... I mean transport... the resources... In fact I checked the website <https://www.asterank.com/> that tells us the earthbound worth of value celestial bodies. And this one is BILLIONS!

What do you think the possible legal consequences would be if we help carry the resources directly from the someone else's ship, or even just relieve them of their ship?

[SLIDE 8: Space Jurisdiction]

Cambell: No country can claim territory! Who even has jurisdiction to punish us! It's the perfect plan. Again, its weird because SPACE! Generally, International law allows countries to assert

jurisdiction outside their territory in several ways, including via the nationality principle, which covers crimes committed by a country's citizens outside its borders, and the universality principle, which allows countries to prosecute anyone for serious crimes against international law, such as piracy.

The Outer Space Treaty is one of the most relevant when it comes to dealing with alleged crimes in space. As for the question of who prosecutes space crimes, the short answer is that a spacefaring criminal would generally be subject to the law of the country of which they are a citizen, or the country aboard whose registered spacecraft the crime was committed, because the treaty grants that country authority "over any personnel thereof". However, the term "personnel" is not defined, and this raises questions as to what the case might be for private citizens such as, for example, an Australian space tourist flying aboard a US-registered spacecraft.

Kendall: Well how could they even prove they own it to begin with?

Cambell: There's no clear answer here but I guess it's worth considering that the prior appropriations doctrine may apply in space... at least when thinking about how the US will deal with outer space resources.

The prior appropriation doctrine developed against the backdrop of commercial/private tension, embodies deeply-rooted American ethical assumptions. Essentially, the first claimant to make actual beneficial use of the water has senior rights to later users. Claimants do not own the land, however, but rather the right to use the water. Consequently, claimants may transfer their rights to the use but the public ultimately owns the water. Parties who establish valid claims are protected against other future users who seek to use the same water at the earlier claimant's detriment. Parties who make actual beneficial use of water have "seniority" over later claimants who use the water for similar purposes.

Kendall: Well if there are no real consequences, we definitely need another ship, and AmaxonX has so many, what do you think about expanding our extraction to relieving them of the ore and their ship?

Cambell: I'm in!

Kendall: Perfect. Oh, looks like we are almost there, lets get ready to go!

Campbell: See you on the possibly-chattel!

AAAAND SCENE!

Act IV Slide

Meanwhile, AmazonX Astronoid Hickman has been stranded and requires a rescue mission. Fortunately, for him, America's greatest President Trump assembled the United States Space

Force in 2019 to build the world's robust team of scientists and engineer to lead our country into the future of intergalactic space exploration.

Act 4: SPACE FORCE: The Skit

Brian (Space X Astronaut): "I can't believe this. Those space pirates not only took all of our precious materials, but they left me stranded on this asteroid. Luckily, I have my emergency Space X Brand™ Cellphone that I can use to call in help."

(Pretends to dial)

BH: "Hello? Space Force Rescue Customer Service? I need help!"

Aaron (Space Force Rescue Customer Service Team Member): "Thank you for calling into the Space Force Rescue Customer Service Hotline. My name is Aaron. I'm the team member that will be assisting you today. For verification purposes, can you please provide me with the last four digits of phone number that you are calling from?"

BH: "What?! It's me! Brian! The Space X astronaut? How many people call into this number?"

AR: "Please, sir, the number last four digits."

BH: "Fine. It's 1234."

AR: "Thank you sir. I see that number associated with this account. How may I assist you today?"

BH: "I was just attacked by a group of space pirates and am now marooned on an asteroid!"

AR: "I see."

BH: "So I need to be rescued?"

AR: "Of course, sir. Just one minute while I review your situation with my manager and see what I can do for you. In the meantime, please wait while I put you on a brief hold."

(Musical hold plays in the background)

SLIDE 1

AR (off camera and pretending to be an automated message): "Thank you for calling **SPACE FORCE**, America's premiere space-based military branch. Founded on December 20, 2019 by *FORMER* President Donald Trump, the Space Force has really been around much longer than you would think. It began when the US Air Force created the Air Force Space Command back in 1982. As President Regan's Star Wars program, the Air Force Space Command was

originally formed to centralize missile warning operations during the Cold War. This way if those Reds over in Commie Russia launched a nuke at us, we'd have a clear line of systems in place to warn us that life as we now it was about to come to an end. Operations extended over time and came to include tasks such as keeping the use and operations of satellites peaceful. Next time you use your GPS to avoid traffic, thank the Air Force Space Command! However, recognizing that a place as vast as **SPACE** is too much for any sub-branch of an established branch to manage, *FORMER* President Trump created the **SPACE FORCE** as a separate military branch. Currently the proud home to 2,501 active duty "Guardians" and boasting a fleet of seventy-seven spacecraft, the **SPACE FORCE** continues to protect our country from threats of an astral nature. **SPACE FORCE!**"

BH: "What the hell was that?"

AR (Back on camera): "Thank you for your patience sir. I have reviewed your situation with my manager. It sounds like what you'd like to do is invoke the Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Space. Is that correct?"

BH: "The what now?"

AR: "Commonly known as the Space Rescue Treaty?"

BH: "Yes, that's right! I'm stranded on an asteroid in space and I need rescue. I invoke that treaty!"

AR: "Well, slow down sir, before we get into the details of things, there is a brief bit of information we need to review.

SLIDE 2

AR: "For starters, did you know that the Space Rescue Treaty has been in force since 1968 with ninety-eight countries having ratified it, including all major space-faring countries?"

BH: "What!? I'm literally running out of oxygen up here."

AR: "Sir, I'd ask for your patience. Protocols must be followed. While the agreement was mostly written to address the issue of an astronaut, rocket, or other space object landing in a different country from which it originated, we think it may apply here. But we need to ask you some questions first."

AR: "So let me look at my notes here. Ah yes, first we need to see if we have met our duty to provide notice."

SLIDE 3

BH: "Have you what your what?"

AR: “Have we met our duty to provide notice? Let me explain. It’s very important.”

BH: “Oh my God, the oxygen levels are falling.”

AR: “The Space Rescue Treaty is only triggered if a member to the agreement receives information or discovers that a personnel of a spacecraft has suffered accident, is experiencing conditions of distress, or has made an emergency or unintended landing territory under its jurisdiction or on the high seas or in any other place not under jurisdiction of any State. If so, we are obligated, I say *obligated* sir, to provide notice to your launching authority or the UN Secretary General.”

BH: “Well, the US is a member to this agreement, right? And you’ve received information that a person, ME, has suffered an accident, is experiencing conditions of distress, and has made an unintended landing on an asteroid, which is not under any State’s jurisdiction! So, can you please meet your duty to provide notice so you can go about rescuing me!?”

AR: “Of course sir. I’ll ask my manager to contact the UN Secretary General and your employers at SpaceX right now.

BH: “Oh thank God.”

SLIDE 4

AR: “The good news, sir, is that because you’ve met all of these criteria, under the Space Rescue Treaty we must immediately take all steps to rescue you and render all necessary assistance!”

BH: “Glorious day, I’m saved!”

SLIDE 5

AR: “Now if you’ll just bear with me for a few more minutes sir, I do need to check something. Hmmm, that’s interesting.”

BH: “What?”

AR: “It seems that under the Space Rescue Treaty the obligation to extend assistance in a search and rescue operation such as this one may not extend just to our beloved Space Force. For example, if we provide information that the personnel of a spacecraft have alighted on the high seas or in any other place not under the jurisdiction of a state, that member country will also have to provide assistance in rescuing you.”

BH: “If it gets me off this rock sooner, great!”

AR: “Please hold for a moment.”

BH: “No, don’t go!”

SLIDE 6

AR: (goes off camera) “Thinking about joining the **SPACE FORCE!**? Then go to our website: www.spaceforce.mil! Don’t be put off by the fact that it looks like something put together on WordPress back in 2007 or that it reminds you of that one blog you read that was dedicated to the NYC Indie Music Scene in 2003; it’s the real deal! There you’ll find things like our mission statement!

SLIDE 7

AR: “This mission statement, which totally doesn’t read like something a junior studying public relations would write, talks about several radical things. Like our desire to mature the doctrine for space power! *Wicked!*”

SLIDE 8

AR: “While you’re there, go to our FAQ page, where you’ll find a lightly curated and well-crafted list of several hundred questions you never thought to ask about **SPACE FORCE!**”

SLIDE 9

AR: “**SPACE FORCE!** Where you’ll learn that maybe your purpose on this planet, isn’t on this planet. *Whoooooaaaaa. SPACE FORCE!*”

SLIDE 10

BH: “This can’t be real. I can’t be dying here on a rock in space because of this organization. I just can’t.”

AR: (back on camera) “Thank you for again for holding, sir.”

BH: “I’m almost out of oxygen! Please tell me you found someone who is a member to the treaty who is close and can help me!”

AR: “Unfortunately sir, we remain the member best equipped to address your needs. All we need now is your credit card number and we can get your rescue underway!”

BH: “My what!?”

SLIDE 11

AR: “Oh dear. I was worried about this. Well clearly you are aware of Art. 5 § 5 of the Space Rescue Treaty which states that any expenses incurred in fulfilling obligations to recover and return a space object or its component parts shall be borne by the launching authority. Here, that

launching authority is you or SpaceX. We couldn't get SpaceX's accounting on the phone. So, we will need your credit card number if we are to proceed."

BH: "This is unbelievable!"

AR: "Sir, with a new Democratic President in office it means that the Republican Party is back to caring about deficits and government spending. We must all do our part, tighten our belts, pick ourselves up by our bootstraps, and ask not what our country can do for us but ask what we can do for our country. Your credit card number, please?"

BH: "Wait! You said that the launching authority is obligated to pay for any expenses incurred in recovering and returning space objects or component parts, right?"

AR: "Correct, sir."

BH: "I'm a freaking human being! I'm not an object or a component part! I'm the damn astronaut! Art. 5 § 5 doesn't apply to me!"

AR: "Hmm, you know what sir, I think you may be onto something. Please hold while I run this by my manager."

BH: "NOOOOOOOOOOO!"

(END SCENE)

FIN