

Appendix

These transcripts are copied from my handwritten notes with partially added questions to provide structure and better understanding.

Interview 1 (Researcher at ESPI 2024)

Question: How do the Artemis Accords compare to other space governance efforts, such as those facilitated by UNCOPUOS, the ISS or the ILRS and how do they address emerging challenges and opportunities in space exploration?

Answer:

- All those examples are different to ways to manage strategic interactions
- Still an ongoing debate about the definition of the term governance -> ensemble, regime, strategic interactions of players in a shared environment
- UNCOPUOS: typical multilateral body
- ISS: multilateral treaties
- AA and ILRS: two different government efforts, single leaders
 - AA: US at the center + bilateral agreements, political commitment, impact beyond lunar exploration, not legally binding but preamble for following bilateral relations with US,
 - In multilateral negotiations: the US would be weaker than in bilateral context, where US is privileged -> AA are US-led coalition of the willing -> create a critical mass to transform principles into international law -> US can claim legal consensus -> regime of many signatories
 - ILRS: not really bilateral, strong Chinese footprint, message of shared multilateral approach, China is building from participial rules-based approach, consensus of interpretation of legal treaties by participating countries
 - ILRS and AA share similar objective but can create a split in the international community -> dangerous because very different interpretations

Question: Can you discuss any specific provisions or principles within the Artemis Accords that you believe are particularly consequential or innovative or controversial? What are some of the key challenges and opportunities you foresee for the implementation and evolution of the Artemis Accords?

Answer:

- AA: peaceful, scientific exploration, release of data -> consent in international community
- “safety zones”, mining activities of resources and protection of heritage -> controversial
- China is formally opposing it but is simultaneously interested in i.e. resource extraction
- US rather rough approach towards resources -> China more cautious
- Principles reach beyond the AA -> will apply to future programs -> taking for granted in the future
- If you want to collaborate with the US, you have to sign -> much broader implications
- How will future efforts in space look like?
- gathering in Canada about lunar security issues
- Unilateral creation of a safety zone -> occupation of the lunar space?, exclusion zone? -> subject to change -> perpetual occupation or expansion? -> catalyze space race?
- Heritage sites -> exclude space activities of other countries, applied to what exactly?

Question: What role do you see for international cooperation and collaboration within the framework of the Artemis Accords, and how do you anticipate the engagement with non-signatory countries and organizations? To what extent can the Artemis Accords shape governance in space and influence the practice of multilateral cooperation?

Answer:

- AA have created a lot of questions about international cooperation
- Concern about Europe’s position: split, some countries (EU and ESA members) signed the AA immediately, others were opposed (at least at first) -> no common European position -> lack joint diplomatic entity but negotiations by nations -> would have been stronger
- Italy: wanted privileged relation with US
- Germany: concern that multilateralism and the bilateral AA do not fit together
- ESA is not driven by foreign policy purposes but programmatic issues -> cooperate with NASA but doesn’t negotiate agreements
- US has way more leverage against singular nations

- EU got involved in space exploration but cannot express views of member states
- African countries: signed because wanted to be involved in future discussions about further specifications -> future international debate will be shaped by AA signatories, so it's better to join-> visibility in multilateral discussions between the signatories on how to proceed and clarification of specific principles, in these the US are one of many
- Engagement with Non-signatories and ILRS-signatories: questioning how will discussions and principles of ILRS develop and conflict with AA -> split between the US and China blocks will make international dialogue and cooperation more difficult -> but still need for collaboration and prevention of conflict

Question: How would you describe the German government's understanding and practice of multilateralism from your experience and do you think that the Artemis Accords are in accordance with this definition?

Answer:

- Signing the AA did not make Germany better off
- Germany was eager in multilateral discussions of UNCOUOS
- At first the other EU countries signing the AA left Germany with a lot of frustration
- Germany did at first deny /delay the signature because of its preference of multilateral negotiations
- Critical also about resource utilization and exploitation
- Signature seemed inevitable: either bandwagon to US or China because Germany has too little own impact and autonomy in space -> frustration about bilateral propositions
- Dependent on US, because the EU is not autonomous enough in space, no human ... launch system -> push for more autonomy was no real option for Germany at the time because Germany is more hesitant towards autonomy in space / human space flight (don't want to invest too much money, several billions)
- Rules are determined by the ones that have the means
- Necessity for cooperation with AA

Question: How would you evaluate the current state of cooperation and competition in space, what are the key challenges? Who do you identify as key players and why, especially with regards to the US and China?

Answer:

- Book gives criteria for key players: space power, space faring nations...
- US, China, Russia (decline) are space powers
- Europe lacks capacities (to do) and autonomy (to decide) -> dependent on US -> primarily space faring
- India on process to become space power but signed the AA
- Soon discussions about governance on the moon -> better position yourself quickly
- Japan -> first non-US Astronaut assigned for AP mission -> frustration of EU states
- Many areas of collaboration and also zero-sum competition in space security -> split into block in multilateral fora -> fueled by US to sustain competition with China to thrive

Question: How do you evaluate the claim, that the Artemis Accords and the ILSR are only instruments to gain power for the US and China?

Answer:

- Not only tools to gain power but retain leadership
- Intentionally used do achieve broader strategic objectives
- Tools to have more influence / credibility to dictate future space laws with international backup (lunar governance shaped by own weltanschauung)
- Going to the moon is costly -> more expertise, materials, and technology from partners
- Instrumentalize diplomatically: we have great partners

Question: Given that plans for the ILSR predate the Artemis Accords, can China's current space efforts still be interpreted as a response to the Artemis Accords?

Answer:

- ILSR predicted the AA -> counterproposal
- Reactions to US space efforts and executive orders under Trump and 2015 Act
- China was not only reacting to US
- Two parallel initiatives
- ILSR would have taken place anyway
- No filter by the UN

Question: Without external conflicts such as the war in Ukraine and the Taiwan issue, could the ILSR potentially have been a more multilateral alternative to the Artemis Accords?

Answer:

- ILRS more multilateral but not more effective
- Suspicion towards Chinese space activities by Western countries -> ILRS could not have been accepted by Western countries
- Would have been nice: European initiative in discussions without space power ambitions -> multilateral but lack of common voice
- Multilateral negotiations are extremely challenging
- ILRS might have been more appreciated

Question: How would you evaluate the German role in space? How relevant is Germany as an actor? How beneficial is Germany's current approach towards space policy?

Answer:

- Germany is very competent but lack capacities (security, human...) -> space faring with niche competencies
- Rather disciplines approach towards space governance: does not have the power but could have power to shape EU space power

Interview 2 (Former NASA Policy Advisor 2024)

Space Lawyer at Department of State

Question: What was the driving force behind the creation of the Artemis Accords, and what were the primary goals you / the US government sought to achieve?

Can you provide insights into the process of drafting and negotiating the Artemis Accords, including any key principles or considerations that guided your decisions?

Answer:

- AA was an outgrowth of discussion on how to build Lunar Gateway
 - How to build and use, very specific Memorandum of Understanding
 - What do they have to cover
 - Particular on gateway -> different issues to other lunar surface activities
- What rules should we follow to the moon?
 - Discussions on US side about going to the moon
 - OST as legal guidance too vague principles, very general terms i.e. Principle 9

- Not specific instructions for missions -> gap
- AA a group effort -> give useful guidance to people working on the primary mission -
> maybe could later guide space community as a whole
- Interview partner wrote AA draft during a flight from Tokyo and afterwards draft was shared with a group of interested countries
 - Negotiated the final draft with group of seven other countries
 - Why was Germany not part: 2 criteria: countries that have missions / operations already planned and countries that were anticipated to be willing -> Germany would not be open to process because of German focus on formal multilateralism and US concern about choosing between big ESA states
 - Hope that partners like Germany would eventually sign

Question: Looking ahead, what are some of the key challenges and opportunities you foresee for the implementation and evolution of the Artemis Accords, and how do you plan to navigate them?

Answer:

- 2 categories of challenges
- Spreading more broadly: how have great deal of momentum, set of best practices for space community
 - German signature was critical among other countries like FR; IND, BR
 - US tried to negotiate and convince -> most objections were about the process, no serious criticism on content itself
- Operational challenge: AA still don't answer mission specific questions -> bringing actual people from the mission in to the conversation
 - 2022 meeting of signatory countries: Working Groups, deconfliction -> how to design mission -> ongoing
- Ultimately include countries that do not currently plan missions -> have a voice now for the future

Question: What are your observations regarding Germany's role in space and the development of collaboration and partnership between Germany and the US in space endeavors esp. with regards to the Artemis Accords?

- One of the largest contributors to ESA: tech, money, influence
- Leader in Europe
- Germany views space sector rather traditional

- Heavy government, formal multilateralism, not so much private sector lead
- „backwards” in space policy -> middle of transformation towards flexibility
- Dynamic and motivated industry

Question: Why did the US not address the issues at the UN?

Answer:

- UN would not practically be fast enough to provide immediate answers -> but time sensitive topic
- AA often states the necessity for the UN to address issues further
 - Legitimacy of the UN
 - Geopolitical interests
 - Hope UN will provide further guidance on issues -> i.e. Working Group on Space Resources (mandate took years)
 - UNCOPUOS has been working on sustainability of earth orbit -> no capacity left

Question: Can you discuss any specific provisions or principles within the Artemis Accords that you believe are particularly consequential or innovative or controversial?

Answer:

- Existing provisions of OST
- Human heritage not part of OST -> AA does not provide any final answers -> restrictions now only for signatories -> then go to the UN because need for multilateral discussions about what counts as heritage sites (list)
- Space resources -> as long as you follow international law, it is possible to use space resources: the UN (Working Group) is working on rules
 - 2015-202: a lot of debate in UN if space resource exploitation is allowed under OST without any other multilateral addition
 - Can you (not)? -> rules needed if exploitation were possible
- Germany: statement in OST AII prohibits / places rules on space resources
 - Distinction on purpose for use of space resources-> statement allows only for scientific purpose
 - US found that unproductive
- Deconfliction: “safety zones” a bad name: instead meaning areas on which you provide notice before entering as landing too close by can destroy other space crafts

with dust and rocks (studies physics and sp. relations) -> no exclusion on active mission zones -> in accordance with OST principle of free access

Question: What role do you see for international cooperation and collaboration within the framework of the Artemis Accords, and how do you anticipate the engagement with non-signatory countries and organizations? To what extent can the Artemis Accords shape governance in space and influence the practice of multilateral cooperation?

Answer:

- More signatures -> more participants in the conversation
- If we can show real implications in real mission -> long term impact in no one misuses
- Can the UN take up the conversation and further it?
- AA provide a common legal understanding -> focus on specific rules
- Should provide a starting point for multilateral discussions

Question: From a US perspective, what would you consider the reasons for the delay in Germany's signature to the Artemis Accords and how would you evaluate those?

Answer:

- Doubts about process being not multilateral
- Doubts about space resources
- Trump administration viewed critically -> powerful transition between presidents

Question: How do the Artemis Accords compare to other space governance efforts, such as those facilitated by UNCOPOUS, the ISS or the ILRS and how do they address emerging challenges and opportunities in space exploration?

Answer:

- ILRS very similar to AA
- Set on principles to agree to for the participants
- Compared to AA: More simplistic, not all same topics, not too conflicted with the AA, Feel inspired by AA
- China has not publicly criticized content of AA but only the process
 - Question of geopolitics and creating teams
 - Partners of AA are allowed to sign the ILRS, but they don't

Interview 3 (Advisor at a European State's Government 2024)

His country signed AA in January 2024 -> also party of Moon Agreement

- His country attended a few technical meetings

Question: The Artemis Accords themselves are non-legally binding but still hold political value. How would you evaluate them and their impact?

Answer:

- Political impact of AA-> created a rather enthusiastic reaction from states are also due to UNCOPUOS is not rather efficient currently in creating specific rules
 - Not giving up doings in Vienna -> but AA way to move forward
 - Working Group space resources at UNCOPUOS also with Germany
- We have not yet defined what resources can be
 - AA are a way to enhance the discussion
- AA is a model of instrument
 - Since we are getting stuck at UNCOPUOS because of tensions among regions and states -> difficult
 - Better move forward with some at first instead of not progressing -> not wait for consensus
- UNCOPUOS -> no consensus, if so not totally satisfactory
 - Long term sustainability guidelines
 - Text submitted to compromise, complicated
- Still keeping touch with UNCOPUOS -> making final product available to UNCOPUOS members
- AA remain open i.e. India (also ILRS)
- Asteroid Act -> allow exploitation of resources
- Luxembourg Law

Question: How would you compare the Artemis Accords and the ILRS?

Answer:

- ILRS very broad and general
- Open to other countries
- Doesn't know about ILRS
- Legal view: ILRS purely political, AA set of principles and international framework for international consultation (mechanism)

Question: What are some of the key challenges and opportunities you foresee for the implementation and evolution of the Artemis Accords?

Answer:

- Challenging forms: comprehensive instruments dedicated to space exploitation created for the first time outside of UNCOPUOS
- There is no argument about the AA proposals
- To not bypass UNCOPUOS -> find mechanism to keep in touch with UNCOPUOS
- US doesn't want AA to be a club, but it kind of is
 - Partners have to be likeminded
 - Agree to work along with US interests
- The US are leading space exploration on moon
- Challenging to avoid US dominance with the AA
- On the content keep link between AA principles and OST
 - US claim accordance and implementation of OST
 - The Treaty is interpreted by the US -> put into AA
 - All -> also different interpretation of OST -> in UNCOPUOS no more dialogue but no exchange
 - In AA exchange under NASA leadership generally (heritage)
 - Other countries lead other topics in discussions of AA

Question: Why did the AA circumvent UNCOPUOS?

Answer:

- If lunar exploration would have been a topic on the agenda of UNCOPUOS, nothing would have really happened
- AA a lot more specific than UNCOPUOS' topics currently regarding space governance
- AA discussing avoiding orbit deterrence / debris
- Lunar / space exploration not as important for all states in UNCOPUOS
- AA are not presented as directly connected to AP -> no pressure or requirement to join either for the other
- AA allow to keep tie in UNCOPUOS for other things
- Space resource -> not important at the moment
- His country put discussion to UNCOPUOS to avoid cutting away the right of states
- Reflection of legal issues regarding space

- In 2007 with Austria + NL Joint statement to UNCOPUOS
- Moon Agreement provisions were foreshadowing legal needs and issues -> same issues as AA
- Proposal to Working Group (BE) and Den Haag Working Group
- And two US laws (previously)
- Many states were working on space legislation on their own
- BE Working Group proposal not well received
- BE, FIN, DE -> a new proposal for Working Group

Question: Your country signed the Moon Agreement and the AA. Do you think the Moon Agreement could have been a considerable alternative to AA for Germany? Are they compatible? (for structure)

Answer:

- Germany briefly considered signing Moon Agreement -> but doesn't
 - Rather favorable position
 - Recognized the value of Moon Agreement
 - Was aware of need for discussions about space resources
- Moon Agreement is in force -> not dead
 - Benefits the whole community
 - Your country didn't question Moon Agreement signature
- Are the AA compatible with the OST?
 - The way the AA are written and non-legally binding and within OST
 - Implement OST in very different ways
 - No real contradiction found
 - Leaves the door open
- AA issues of "safety zones" -> regret the phrase
 - Not about restricting access to moon but identify zones for specific attention and prior consultation
- AA: we have different views on OST but work on things we agree on
- We need to be careful that problematic things don't randomly become common law
- BE, NL+ Australia; Saudi Arabia -> withdrew from Moon Agreement and signed AA, doesn't know the reason why

Question: Germany considers itself a promoter of multilateralism. The AA themselves are not multilateral. Do you think that concerns about multilateralism could have been a reason for delay?

- AA are multi- bilateral instruments
- Initiative belongs to NASA and US
- The mechanism they establish is multilateral
- Open vs. closed multilateralism -> AA are middle -> no real restrictions only a few previously mentioned
- Main criteria: abide the OST
- Likeminded club
- Incentive to use AA as engine for UNCOPUOS -> need for time
- US allow establishment of Working Group on Space Resources by BE -> later but mentality still relevant for Germany
- Why did UNCOPUOS wait to offer discussion forums like Hague
- BBNJ treaty has succeeded in managing issues about resources
 - Place for multilaterally binding instruments possible
- UNCOPUOS rule of consensus is its own enemy -> leaves the ones unwilling open to do their own thing
 - Lacking a voting system that could help but also lead to vetos
- AA as instrument for policy for Artemis Program
- ISS with binding intergovernmental document no great network
 - Everything is done through ESA, NASA...
 - Nations don't have own voice (maybe not so relevant for Germany, very involved in ESA)
- AA allows small countries to join discussions without having to go through
 - Also countries without space organizations

Interview 4 (German Industry Representative 2024)

Frage: Der BDI hat bereits seine Positionen zu einem kommenden nationalen Weltraumgesetz veröffentlicht und die Gewinnung von Mond- und Weltraumressourcen unterstützt. Könnten Sie das bitte näher erläutern und die Haltung der Industrie zu den Artemis-Verträgen darlegen? Wie deckt sich dies mit der Haltung der deutschen Regierung?

Antwort:

- BDI Statement
 - Wollte Weltraumgesetz als Weichen für Weltraumbergbau
 - Folgen Luxemburg
- Mittlerweile andere Position gegenüber Weltraumgesetz
 - Zu bürokratische Hürden könnten Initiativen behindern
 - Haftung, Wettbewerb, notwendige Rechtsabteilung für Start-Ups
 - Könnte Dynamik behindern
- AA: gut, dass DE sich das bilaterale Dokument gut anschaut
- AP Partner USA nicht vergraulen
- Die Unterschrift der AA als Rückschlag für Multilateralismus „Eingeständnis einer Niederlage“ -> sehr verspätet, auch kein Vorreiter
- Industrie will lieber multilateral, in aktueller Lage das sehr schwierig -> hätte antizipiert werden können -> BDI hätte frühere Bekenntnis gewünscht

Frage: Welche Vorteile würden die AA der deutschen Wirtschaft bieten?

Antwort:

- Vorteil dabei sein für weitere Zusammenarbeit gut
- Deutsche Zusatzerklärung sehr wichtig
- Ressourcennutzung bisher eher vage und entfernt
- China / Russland Kooperation aktuell eher unerwünscht
- Wir brauchen die USA
- Artemis Programm Einbindung gut für DE
- Ernennung von Japans Astronauten für Mission-> schade für DE

Frage: Wie sieht die deutsche Regierung die Kommerzialisierung von Weltraumressourcen durch private Unternehmen?

Antwort:

- Kommerzialisierung in Raumfahrt -> Bundesregierung erkennt Potentiale
- Startups in Nachhaltigkeit, Microlauncher, Wettbewerb, New Space und Kommerzialisierung der Raumfahrt, Innovation
- Raumfahrt in DE immer Europäisch gedacht -> Pole DE + FR
- DE eher mittelständisch und kleine Betriebe in Raumfahrt

- FR eher große Unternehmen
- DE unterstützt eher kommerziellen Wettbewerb, FR blockiert eher
- Raumfahrtstrategie erwähnt Weltraumbergbau als Zukunftsthemen für die UN -> noch keine so klare DE Position
- AA als national, macht keinen großen Unterschied wegen anderen großen EU Playern

Frage: Welche Rolle spielt Deutschland Ihrer Ansicht nach im Weltraum?

Antwort:

- DE ist in vielen Weltraumbereichen theoretisch sehr aktiv und führend -> hohes Potential dass DE, ESA; EU Unterstützung braucht
- Gefahren der Absenkung des ESA Beitrags und abwenden von Weltraum als Priorität
- Deal Return? -> wie geht's weiter
- Aktuelle geopolitisch Lage schwierig
- Große Wirkung dt. Astronauten auch für Bevölkerung und Politik -> deutlich nachdrücklicher für DE Interesse positionieren
- Von EU Seite Löwenteil an ISS
- Kollaboration läuft auf ISS gerade erstaunlich gut trotz aktueller geopolitischer Lage
- ISS war absolute Erfolgsgeschichte
- RUS wird 2028 zurückziehen, ISS Auslaufen 2030
- Neue Projekte mit USA und anderen positiv

Frage: Welche möglichen Auswirkungen sehen Sie für kommerzielle Weltraumaktivitäten und die Beteiligung privater Unternehmen an der Weltraumforschung?

Antwort:

- Pläne für kommerzielle / Service Raumstation (Airbus i.e.)
 - Sehr positiv für BDI
 - Überangebot verhindern
- Deutsche Weltraumindustrie sehr vernetzt mit USA, EU, CAN, AUS
 - VAE, SA, IND -> wie involviert?

Frage: Glauben Sie, dass die USA auf Partner des AP-Druck zur Unterschrift der AA ausgeübt haben könnte?

- Keine Ahnung ob die USA wegen Artemis Programm Druck auf DE zur Unterschrift der AA ausgeübt hat

- Eine Unterschrift war letztlich wahrscheinlich eine logische Konsequenz

Frage: Haben Sie noch weitere Infos zum Thema?

Antwort:

- Weltraumschrott: Bemühungen europäisches Space Law und deutscher Weltraumgesetzentwurf
 - Wichtig für Bundesregierung
 - Wunsch nach Regelung auf UN-Ebene
 - Zero Debris Charta -> hat DE und Unternehmen unterschrieben

- Industrie will keine spezifisch für DE strengere Regeln, Unternehmen forschen aktiv

Frage: Wen (z.B. das Auswärtige Amt, BMWK, DLR oder die Wirtschaft / Industrie) würden Sie als Hauptverantwortliche für die Bestrebung zur Unterzeichnung der Artemis Accords einschätzen? Wer hatte auf deutscher Seite das größte Interesse an dem Dokument und dessen Signatur?

Antwort: In diesem Fall kann ich Ihnen leider fast gar nicht weiterhelfen. Wir glauben, dass die treibende Kraft tatsächlich das Kanzleramt war – dies ist jedoch lediglich eine Vermutung und nicht bestätigt.

Interview 5 (Delegate at UNCOPUS 2024)

Question: What impact do the Artemis Accords have on the rights and responsibilities of participating nations in space activities, especially concerning lunar exploration and space resource utilization?

Answer:

- Depends on who you talk to -> AA about setting standards for space resource extraction
- Anecdotes about the first few signatory countries being involved in the AA negotiations

Question: What role do you see for international cooperation and collaboration within the framework of the Artemis Accords, and how do you anticipate the engagement with non-signatory countries and organizations? To what extent can the Artemis Accords shape governance in space and influence the practice of multilateral cooperation?

Answer:

- Working Group tries to find a multilateral consensus -> don't want to start with blank sheet of paper
 - Have been many discussions on many levels
 - AA have inputs into multilateral negotiations
 - In Working Group the ideas of different groups of signatories of AA, Moon Agreement etc. -> one of many inputs and perspectives for finding consensus and multilateral negotiations
- Working Group -> uses non-binding inputs for legally binding output
 - AA as one of many inputs
 - The more ideas the better
- Assumption:
 - the AA are the US perspective
 - Different reasons for countries to sign
 - Are the AA only the US perspective? -> maybe others have agreed
 - Negotiations between early signatories and US
- The ILRS lead by China -> bring their own ideas
- The more countries signing the AA -> less input in discussions?
 - Some countries have signed the Moon Agreement and the AA
 - Maybe only stronger cause
 - Still countries stand for their own opinion
- The AA are non-threatening to the multilateral process
- Academics think rather black and white regarding the AA -> look at all perspectives
- Multilateral negotiations -> open conclusion
- How influential will AA be in final version -> open -> but won't hinder further progress
- UNCOPUOS: all decisions by consensus -> agree on agenda
- Since 2017 agenda item of space resources -> establish Working Group on action with all countries, mandate by consensus
- Germany very active at UNCOPUOS -> German delegation at space resources very engaged and active, constructive, good for progress
 - Made some initiatives and ideas -> has its own perspective
 - In UNCOPUOS Germany enacts multilateralism
- Cooperation in space resources legal subcommittee

- Lots of progress from many countries
- Even China gives inputs
- Even ahead of the mandate, cautiously optimistic
- Deeply political issue
- Space matters (what happened at the end) -> despite many issues in geopolitics -> no consensus on one side issue
- Progress on UN level but backwards on geopolitical level -> reversing back to military power play
 - Probably no agreement on really tough issues
 - Space debris (New Space), cleaning up space, who's going to take responsibility, militarization, weaponization of space
 - Thinking of space being just an area like everything else
- ISS cooperation with Russia still continues
 - We got to change the thinking to improve -> otherwise potentially grave impact
- Everyone interested in opportunities i.e. space resources, not in the problems like space debris
 - More space resource talk in UNCOPUOS

Question: Is the Moon Agreement still on the table for Germany? How would you evaluate the German role in space?

Answer:

- Germany has looked quite intensively at the Moon Agreement
 - Germany as a supervisor of AA?
 - See it on the broader context as Germany is just one country
 - Some countries will have unmettable expectations
 - Where does Germany see itself in the AA hierarchy? – AA limitation for cooperation with other countries
 - What does Germany think about AA principles that go beyond the OST?
 - AA not a lot of detail -> no idea of what is really possible

Interview 6 (Associate Professor on Space Law 2024)

Question: What do you think were the reasons for Germany's delayed signature?

Answer:

- Similar countries that also promote multilateralism
- Moon Agreement -> look at arguments of Australia / NL
 - Inconsistency, paper by him
 - Statements and criticism
 - Saudi Arabia withdrew from Moon Agreement when signing AA -> SA for commercial reasons -> seeking opportunities and not being left out
- Several EU countries have signed -> Germany doesn't want to be left out of AA
- AA not binding but intended to build a more detailed regime
- Public?: NASA with Japan and lunar activities with implementation of binding AA articles
 - Also NASA + Australia -> bilateral agreement on basis of AA
- In German parliament was a discussion about ratifying Moon Agreement
- Way to understand German positions: statements at UNCOPUOS + Working Group on Space Resources

Question: How do you evaluate the claim, that the Artemis Accords and the ILRS are only instruments to gain power for the US and China? How would you evaluate China's approach towards the governance of state free spaces? Given that plans for the ILRS predate the Artemis Accords, can China's current space efforts still be interpreted as a response to the Artemis Accords?

Answer:

- Before ILRS China sent document to UNCOPUOS about space efforts and resource extraction -> incorrect analysis from US
- ILRS announced in 2020 as bilateral initiative between RUS+CHINA -> China is now the leader
- 2 previous Chinese space stations -> until 2030s cast facilities on moon
- China tests water on Mars on Moon?
- China and US test area to see if its worth going there
- In the next 10-15 years China will conduct unmanned space exploration -> very different to US
- China is building satellite constellations

- You don't have anything like AA from China -> ILRS is not really comparable, not as visible
- Türkiye joined the ILRS but is usually rather a US ally
- China: benefits for countries joining ILRS, the earlier the more -> series of bilateral agreements -> not public

Question: Do you think Germany had a viable alternative to signing the AA? Was there a pressing issues that had to be dealt with outside of UNCOPUOS?

Answer:

- Long term moon activities rely on space resources
 - Internationally widely recognized principles
 - Working Group not really effective so far -> can they fulfill their mandate
 - Or series of bilateral regimes
- UNCOPUOS drafts rely on consensus -> no disagreeing votes
 - Otherwise need completely new mandate after the 5- year mandate of the Working Group on space resource
- EU countries have no real alternative to AA
 - Won't consider ILRS
 - Germany would have been the first EU country to join ILRS if they did -> Geopolitically not clever but formally no stop

Question: How would you evaluate the German role in space? How relevant is Germany as an actor?

Answer:

- German role in space
 - Relevant in niche areas
 - Balancing role in UNCOPUOS
 - Peculiar that Germany signed the AA
 - Germany previously criticized the American perspective on resource extraction -> should be legally discussed at UN to develop international regime instead of domestic/national approach
 - You can't escape the American perspective

Question: How do you evaluate the claim, that the Artemis Accords and the ILRS are only instruments to gain power for the US and China? To what extent can the Artemis Accords shape governance in space and influence the practice of multilateral cooperation?

Answer:

- When a country signs the AA they embrace American space law and interpretation
 - In future negotiations argue for the AA position as consensus of AA
 - Build customary law -> does this undermine multilateralism?
- if Working Group principles will not mirror AA principles -> will the US veto?
- AA rather vague
- Argument: promote multilateral negotiations but undermine multilateral arguments -> background of law by initiator
- Counter argument: his view in book chapter, research agenda of space policy by Schrogl -> space resource
- Are the signatures accepting other argument in future multilateral negotiations
 - How does it promote multilateralism? Controversial way
- China doesn't have the same position
- For years countries (and US) opposed space resource Working Group and agenda
- If you wait for UNCOPUOS you have to wait forever
- The AA got the ball rolling
 - Effort to guide multilateral discussions towards their own perspective -> customary law
- If the Working Group mandate ends and no other mandate established
 - Parallel regime US vs. China
 - Legal empty space -> can escalate quickly
 - How can they coexist i.e. "safety zones"
- Chinese statements: talk about the controversial issues
- The US have acted this way in the past as well but unprecedented in space
 - Other treaties were multilateral

Question: Could the Moon Agreement have been a considerable alternative to the AA?

Answer:

- The Moon Agreement -> difficult to now join the Agreement -> no real initiative
 - Some parts could be integrated / used moving forward

- How should countries that are part of Moon Agreement act? -> are they launching multilateralism initiatives?

Interview 7 (DLR Staff Member 2024)

Frage: Wie lief der Entscheidungsprozess zur Unterschrift ab und wieso kam es zu der „Verzögerung“?

Antwort:

- DE hat sich lange Zeit gelassen mit der Entscheidung zur Unterschrift, u.a. aus administrativen / bürokratischen Gründen z.B. wann und wer soll unterzeichnen
- Multilateralismus: Ressourcenaktivitäten sollen im Rahmen der UN geregelt sein
- Anfangs: Zweifel an Diskussionen einer likeminded Gruppe abseits der UN -> nach Prüfung Sicht auf AA als Beitrag zu den UN Diskussionen -> AA widersprechen nicht den multilateralen Bestrebungen innerhalb UNCOPUOS
- Anfangs Fragen, wie AA inhaltlich zu interpretieren ist -> Fokus auf Ressourcen und „safety zones“ -> auch Unterzeichner diskutieren untereinander
- „safety zones“: aktuelle Missionsgebiete sollen geschützt und Durchquerung koordiniert werden
- UNCOPUOS: aktuell Bestrebungen nach ATLAC -> unterstützt von vielen AA und ILRS Unterzeichnern -> Mondaktivitäten gemeinsam koordinieren und an einen Tisch bekommen

Frage: Wie steht Deutschland zur ILRS

Antwort:

- Interessant, wie RU und CHN über ILRS sprechen: Gemeinschaftsprojekt vs. „unser eigenes“ Projekt offen auch für andere
- Prinzipien der ILRS sind nicht bekannt und nicht für die Öffentlichkeit zugänglich -> daher schwer für Deutschland zu beurteilen, da selber nicht gesehen
- ILRS betont, im UN Rahmen und friedlich zu agieren und internationales Recht zu achten
- China Strategie der Bundesregierung regelt auch die Zusammenarbeit in Weltraumangelegenheiten; gemeinsame Arbeit mit China bei UNCOPUOS ohne kategorische Ablehnungen und Austausch zur Ressourcenfragen in AG

- ILRS und AA sind Beiträge, die in die Verhandlungen der Ressourcen AG eingehen nach folgenden drei Säulen: in accordance with international law; safe, sustainable, peaceful manner

Frage: Kann Deutschland auch nach Unterzeichnung der Artemis Accords noch selbstständige Positionen bei UNCOPUOS vertreten?

Antwort:

- Bemühungen für koordinierten Informationsaustausch
- Unterzeichner der AA kein geschlossener Club mit gleicher Meinung, sondern einige bei den gemeinsamen Werten und Säulen
- Alle vertreten weiterhin selbstständig ihre eigenen nationalen Positionen und müssen sich nicht Stellungnahmen zwingend abstimmen -> kein anderes Land muss den Inhalt und die Details absegnen
- DE betreut Thema: wie bringen wir unsere Erfahrungen im Informationsaustausch von AA in UNCOPUOS ein
- AA als Beitrag zur DE Multilateralismus Politik
- AA Unterzeichner diskutieren, wie Informationen ausgetauscht werden können als Betavariante / Testrun für UNCOPUOS

Frage: Wie steht Deutschland zur bisherigen internationalen Weltraumgesetzgebung?

Antwort:

- Mondvertrag: weniger Relevanz durch wenige Unterzeichner -> Ziel einen multilateralen Prinzipienkatalog zu erstellen -> DE sieht eigene Bestrebungen als Umsetzung wichtiger Teilaspekte -> AA nicht bindend und daher nicht in Konkurrenz mit Mondvertrag
- Aktuell kein Erfordernis zur Ergänzung des OST durch Verträge im International Law
- Bedarf nach Prinzipien für Ressourcen und Mondaktivitäten
- AA keine Erweiterung des OST, da nur politisch/symbolisch und Schnittmenge mit nationalen Positionen
- Auswärtiges Amt hat eine offizielle Definition für Multilateralismus
- Bei UNCOPUOS: nationale Positionen im Voraus abstecken -> mit likeminded Staaten absprechen oder abstimmen -> dann bei UNCOPUOS einbringen / manchmal gibt es auch ad-hoc Entscheidungen

Interview 7 (Transcript adapted by the interview partner)

- DE hat sich lange Zeit gelassen mit der Entscheidung zur Unterschrift und die Entscheidung für die Unterschrift sehr bewusst getroffen. In den Monaten vor der Unterzeichnung hat in DEU zur Vorbereitung der Überarbeitung der RF-Strategie ein Konsultationsprozess stattgefunden, u.a. auch zur Bedeutung der Exploration. Mit dem ESM sind wir bereits ein starker Partner des Artemis Programms. Nach der deutschen Zeichnung bei der letzten MK und auch dem DEU Vorsitz der ESA-Ratspräsidentschaft auf Ministerebene war ein guter Zeitpunkt gegeben.
- Multilateralismus: Die Accords bekräftigen die Verpflichtung, internationale Regeln und Vorschriften in Übereinstimmung mit dem Völkerrecht durch einen umfassenden multilateralen Ansatz zu schaffen. DEU wird die Entwicklung eines internationalen Rechtsrahmens für Aktivitäten auf Himmelskörpern auf der Grundlage der UN-Weltraumverträge im Rahmen der UNCOPUOS, dem zentralen Forum für die weitere Entwicklung des internationalen Weltraumrechts, weiterhin unterstützen. (Quellen: Beitrag DEU bei UN Sustainable Lunar Activities Conference, AA Text)
- Anfangs: Zweifel an Diskussionen einer likeminded Gruppe abseits der UN ausschließen -> DEU sieht AA als Beitrag zu den UN Diskussionen -> AA widersprechen nicht den multilateralen Bestrebungen innerhalb UNCOPUOS (s.o. auch zur Quelle)
- Anfangs Fragen, wie AA inhaltlich zu interpretieren ist -> Fokus auf Ressourcen und „safety zones“ -> Unterzeichner diskutieren untereinander über die Umsetzung der Prinzipien und haben hierzu auch bei der ersten UN Sustainable Lunar Activities Konferenz gesprochen.
- „safety zones“: aktuelle Missionsgebiete sollen geschützt (harmful interferences ins Weltraumrechts sollen vermieden werden) durch Koordinierung bei anstehender Durchquerung der Missionsgebiete (internationale Diskussion zum Thema läuft)
- UNCOPUOS: aktuell Bestrebungen nach ATLAC (Dokumente CRP62 und 67! Und DE Statements) -> unterstützt von vielen AA und ILRS Unterzeichnern -> Mondaktivitäten gemeinsam koordinieren und an einen Tisch bekommen. Zudem wird in der Arbeitsgruppe zu den rechtlichen Rahmenbedingungen von Weltraumressourcenaktivitäten im UNCOPUOS Rechtsunterausschuss über einen Prinzipienkatalog für Ressourcenaktivitäten verhandelt (DEU Prio). (Quellen: Beitrag

DEU bei UN Sustainable Lunar Activities Conference, DEU COPUOS 2024
Stellungnahme TOP 15)

- Interessant, wie RU und CHN über ILRS sprechen: Gemeinschaftsprojekt vs. „unser eigenes“ Projekt offen auch für andere (Quelle: Beiträge bei UN Sustainable Lunar Activities Conference)
- Wurde DE aktiv für ILRS angesprochen? -> Ist mir nicht bekannt.
- Prinzipien der ILRS sind nicht für die Öffentlichkeit zugänglich (Lunar Space Cooperation Initiatives 2024) -> daher schwer von außen zu beurteilen (Vgl. UN Sustainable Lunar Activities Conference Wortbeiträge unterschiedlicher Staaten)
- Der Austausch von AA und ILRS Unterzeichnern bei der UN Sustainable Lunar Activities Conference scheint zu zeigen, dass die Unterzeichner beider Dokumente sich einig sind, dass Weltraumaktivitäten im Einklang mit dem Völkerrecht und auf sichere, nachhaltige und friedliche Weise durchgeführt werden sollten. Diese gemeinsamen Ziele sind ein guter Ausgangspunkt, um bei den Vereinten Nationen ein gemeinsames Verständnis zu erreichen. (Quellen: Beitrag DEU bei UN Sustainable Lunar Activities Conference, DEU COPUOS 2024 Stellungnahme TOP 15)
- China Strategie der Bundesregierung regelt auch die Zusammenarbeit in Weltraumangelegenheiten; Interaktion mit China bei UNCOPUOS ohne kategorische Ablehnungen und konstruktiver Austausch soweit möglich u.a. in der Ressourcen AG
- ILRS und AA sind Beiträge, die in die Verhandlungen der Ressourcen AG eingehen können nach folgenden drei Säulen: in accordance with international law; safe, sustainable, peaceful manner (siehe oben)
- Bemühungen für koordinierten Informationsaustausch
- Unterzeichner der AA kein geschlossener Club. Sie sind eine Gruppe, die ein gemeinsames Verständnis für die Bedeutung der friedlichen, nachhaltigen und sicheren Nutzung des Weltraums zum Ausdruck gebracht hat. Diese Prinzipien sind fest im Weltraumvertrag verankert, auf dem die AA basieren. (Quelle: Beitrag DEU bei UN Sustainable Lunar Activities Conference)
- Alle vertreten weiterhin selbstständig ihre eigenen nationalen Positionen und müssen sich nicht Stellungnahmen abstimmen -> kein anderes Land muss den Inhalt und die Details absegnen (s.o. Quelle für ähnliche Aussage: Wortmeldung bei UN Sustainable Lunar Activities Konferenz)

- DE betreut Thema: wie bringen wir unsere Erfahrungen aus dem Austausch der AA in UNCOPUOS ein. (Quellen: Beitrag DEU bei UN Sustainable Lunar Activities Conference, DEU COPUOS 2024 Stellungnahme TOP 15)
- AA als Beitrag zur DE Multilateralismus Politik (Quelle: u.a. <https://www.dlr.de/de/aktuelles/nachrichten/2023/03/deutschland-unterzeichnet-die-artemis-accords>)
- Mondvertrag: weniger Relevanz durch wenige Unterzeichner -> Der Mondvertrag sieht (vorausschauend) in Art. 11 Abs. 7 die Entwicklung eines internationalen Regimes für Ressourcenaktivitäten vor. Derzeit wird im Rahmen der Ressourcen AG (s.o.) über einen solchen internationalen Rahmen in Form eines Prinzipienkatalogs gesprochen. -> DE bringt sich aktiv in diese Diskussionen ein (Quelle: z.B. Stellungnahmen, nationaler Beitrag Ressourcen AG alles online verfügbar auf COPUOS Website). Gewissermaßen wird also hier indirekt eine Idee aus dem Mondvertrag auch unabhängig von der Unterzeichnung aufgegriffen.-> AA nicht bindend und daher nicht in Konkurrenz mit Mondvertrag (vgl. Papier (CRP) von ND, AUS, AUT auf COPUOS LSC Website 2023)
- Aktuell kein Erfordernis zur Ergänzung des OST
- Bedarf nach Prinzipien für Ressourcen und Mondaktivitäten (s.o.)
- AA keine Erweiterung des OSR, da politisch und Schnittmenge mit nationalen Positionen
- Auswärtiges Amt hat eine offizielle Definition für Multilateralismus
- Bei UNCOPUOS: nationale Positionen im Voraus abstecken -> ggf. mit likeminded Staaten besprechen oder absprechen und ggf. im erweiterten Kreis (über likeminded Staaten hinaus besprechen) -> dann bei UNCOPUOS einbringen / manchmal gibt es auch ad-hoc Entscheidungen

Interview 8 (German Government Official at Auswärtiges Amt 2024)

No direct question, but her talking about the background

- Für Raumfahrt als solches ist BMWK zuständig -> Frau Christmann
- AA sehr stark mit was wollen und können wir als DE im Weltraum machen
- DLR mit Raumfahrtagentur -> praktischer Teil

- Ref 504 Auswärtiges Amt (AuAm)
 - Recht weit entfernt
 - Seerecht + Weltraumrecht
 - Planungen im Einklang mit Völkerrecht
 - Wenn neues Völkerrecht geschaffen wird
- DE und Referat war federführend bei neuem Seerechtsvertrag / Meeresschutzabkommen letztes Jahr
- AuAm kann theoretisch jedes völkerrechtliches Vertragsthema an sich ziehen -> auch oft bei Weltraum
- Referat befasst sich mit UN-Rechtsausschuss zu Weltraumausschuss
- DLR-Raumfahrtagentur handelt da mehr im Auftrag der Bundesrepublik
- 504 hat AA 2020 nach Völkerrechts Konformität betrachtet; damals lag noch keine Unterschriftenanfrage an vor
 - In früher Phase: AA beruft sich viel auf Völkerrecht und Nachhaltigkeit, aber kritische wegen Aneignungsverbot entgegen Sek. 10 Abs. 2 der AA -> Spannungsverhältnis
 - Zweifel an „safety zones“ als Umdeutung / Aushöhlung der OST
- Bald war klar, DE hat raumfahrtpolitische Interessen an AA -> Partizipation
 - Wir liefern Lunar Gateway Modul und sind dadurch starker Partner für Artemis Programm
 - BMWK sah Vorteile für Gespräche mit USA über Unterzeichnung der AA als Prinzipien für Mondaktivitäten
 - AuAm nicht im Fahrersitz -> wollten nicht AA an sich ziehen, weil AA kein völkerrechtlicher Vertrag, sondern Arbeitsgrundlage für Zusammenarbeit mit Partnern und potentielle Weiterentwicklung von Völkerrecht
- Unterzeichnung nur auf Ebene Raumfahrtagentur -> nicht bindend
- Nur alles auf Grundlage des Völkerrechts -> Zusatzerklärung
 - offen gelassen, dass wir nicht zwingend mit allen Punkten übereinstimmen
- Hauptforum für Diskussionen über Weiterentwicklung des Weltraumrechts weiterhin UNCOPUOS
- Dt. Initiative für Arbeitsgruppe Weltraumressourcen für mehr rechtliche Guidance
- Praktische Zusammenarbeit bei AA kann Arbeit bei UNCOPUOS befruchten
- Kritische Passagen:

- Immer wieder in Verträgen mit unbestimmten Begriffen konfrontiert (nicht nur bei AA)
- Kontinuierliche Gespräche mit USA und anderen über Auslegung -> kein Verlassen auf schriftliche Formulierung
- Relevanz dann bei genauer Auslegung bei Planung und Ausführung (z.B. „safety zones“: Zaun oder Datenbank -> bei Zaun würde DE widersprechen, da nicht völkerrechtskonform)

International Cooperation

- Erfahrungen von AA zu UNCOPUOS
 - Papers, Side Events, Konferenzen mit anderen Staaten
 - Informationsaustausch -> Zusatzerklärung
- DE wird immer betonen, dass AA zu nichts verpflichten
 - Verhandlungen: werden safety zones inkludiert und wie definiert / ausgelegt
 - Praktische Probleme bestehen und müssen in Regelwerke (basierend auf OST) aufgenommen werden

Multilateralismus:

- AA an sich nicht multilateral, DU nur unterschreiben
- Unverbindliche Vereinbarung mit Partnern
- Multilateral: Forum bei dem alle, die möchten, einbezogen sind in gemeinsame Verhandlungen (UNCOPUOS)
- Spannungsfeld: Ambitionen vs. Universalität
- Meeresschutzabkommen: Umfang mit bestimmten maritimen Ressourcen auf hoher See
 - Ähnliche Fragen / Gespräche wie bei AA
 - Dt. Delegation wollte sehr hohe Umweltschutzstandards und gleichzeitig sollten möglichst viele Staaten partizipieren -> Spannung -> Kompromisse erforderlich
 - Klassische Kompromisse_ relative hohe Umweltstandards gelungen, Meeresschutzgebiete per Mehrheitsentscheidungen in zukünftige Verhandlungen thematisiert -> finanzieller Vorteilsausgleich für marinegenetische Ressourcengewinne aber trotz DE Widerwillen durchgesetzt, da andere Kapitel von DE übernommen wurden

Entscheidungsprozess:

- DE (Auswärtiges Amt) wurde noch eine Weile lang nicht gefragt, ob wir AA unterschrieben wollen
- BMWK könnte schon früher Anfrage bekommen haben
- Abwägungen und Austausch zwischen Ressorts
- De facto Zusammenarbeit mit USA besteht ohnehin -> Prinzipienkatalog und gemeinsame Diskussionen der AA Partner aber besser als dabei außen vor zu bleiben
- Politische Abwägung -> es gibt Bedenken wegen Völkerrecht -> lösen durch Nicht-Verbindlichkeit und Vorbehalt, dass DE bei praktischer Auslegung sehr wohl mitreden kann -> Zusatzklärung als Vergewisserung

Governance of state free spaces zu AA

- Antarktis: Vergleich zu AA?
 - Antarktisvertrag und OST als jeweils oberste Gebote
 - Fälle sind auch ähnlich
 - Antarktisvertrag: im Gegensatz zum OST -> Bergbau explizit ausgeschlossen
- Gibt auch viele nicht verbindliche Absprachen zwischen vielen Ländern zu bestimmten gemeinsamen Projekten
- aber kein Dokument zur Prinzipienauslegung eines einzelnen Landes wie AA
- wenn rechtlich verbindlich, dann hätten die AA Prinzipien multilateral verhandelt werden müssen
- Fortentwicklung von Völkerrecht mit allen relevanten Partnern und nur in dem Kontext
- Weltraum hat schon was Eigenes im Vergleich zu anderen staatsfreien Räumen

Moon Agreement

- Völkerrechtlicher Vertrag im Konsens und multilateral
- Immer wieder in Debatten thematisiert
- Enthält nützliche Gedanken, aber spiegelt nicht wider, was eine Mehrheit der Staaten will -> kann aber teilweise inspirieren
 - Seerechtsabkommen 1982 erst 1996 in Kraft getreten, enthielt ursprünglich Verteilungsregime für Ressourcen ähnlich wie im Mondvertrag
 - Regeln vertraten nicht genügen Interessen
 - Annex/Zusatz zum Tiefseebergbau war notwendig
- Mondvertrag -> Interessensausgleich nicht so gut gelungen

- Für DE aktuell kein Impuls den Mondvertrag erneut zu reviewen -> auch keine Aufforderungen von Partnern -> keine absehbare Zukunft
- Eher Schiene auf neues Regelwerk durch UNCOPUOS
- Partner, die AA und Mondvertrag unterzeichnet haben: auch Arbeit mit Ansätzen des Mondvertrages, aber keine Dynamik für konkrete Überlegungen zur Unterschrift

Interview 9 (German Government Official at BMWK 2024)

Frage: Wie verlief der Entscheidungsprozess in DE und wieso hat DE sich zur Unterzeichnung der AA entschieden?

Antwort:

- BMWK federführend für Raumfahrtangelegenheiten der BR
- AA wurden anfangs intern erörtert, sind dann aber eine Weile lang liegen geblieben
 - Wie politisch und rechtlich einzuordnen
 - Grund für Verzögerung: Zeit gelassen für juristische Prüfung durch Völkerrechtsreferat des Auswärtigen Amtes -> alle Artikel und deren rechtliche und politische Wirkung
- Einig: nicht rechtlich bindend, nur politisch -> Zusatzerklärung und Rede und Interviews vor Ort bei Unterschriftszeremonie
- Ähnlich wie FR, Spanien, später Argentinien
- AA Einleitung: AA wollen in Übereinstimmung mit Völkerrecht ausgelegt werden -> Inhalte der AA abstrakt formuliert
- DE: Hauptanliegen für Unterzeichnung: mit am Tisch sitzen bei Gesprächen über konkrete Ausarbeitung
 - Politisches Interesse da viele Unterzeichner der AA -> Mitgestaltung nur so möglich
 - DLR bei Workshops regelmäßig dabei
- UNCOPUOS weiterhin Hauptgremium für rechtlich bindende Regelungen und weltraumpolitische Fragen
 - Essentiell mit allen Staaten zu koordinieren
 - AA soll keine abgeschnittene Gruppe sein -> DE als Brücke zwischen AA-Unterzeichnern und anderen Staaten -> dankbar angenommen, lockerer Ideenaustausch

Frage: Diskrepanz: Mitgestaltung AA vs. UNCOPUOS und Nichtunterzeichnerstaaten?

Antwort:

- Immer im Großen anfangen nicht so produktiv
- Üblicherweise Vorverhandlungen unter likeminded Staaten
- AA: Staaten haben gemeinsames Interesse an neuen Regeln für bestimmte Themen
 - Bringen das dann in UNCOPUOS ein
 - Klappt bisher ganz gut
 - Wird ähnlich gehandhabt wie in anderen Fällen

Frage: Wieso kein neuer Weltraumvertrag?

Antwort:

- Mehr Erfahrung in IP -> Weg zu juristischen Dokumenten auf internationaler Bühne sehr lang -> näher „ran robben“
- Viel auf politischer Ebene, u.a. Absichtserklärungen, Leitlinien...
- Viele Diskrepanzen in Details auch bei engen Abstimmungen
- Im politischen Geschehen eher pragmatisch als strikt durchgeplant

Frage: Wer war involviert?

Antwort:

- BMWK federführend für Abstimmung AA -> eng mit AA für Völkerrecht und Außenpolitik
- Fachlich DLR
- Bundeskanzleramt wollte auf dem Laufenden gehalten und über Entscheidungen informiert werden -> war wichtig, dass wir nicht alleine vortreten, sondern andere EU Staaten den gleichen Schritt machen
- Da AA nicht rechtlich relevant -> unterzeichnet von DLR und Bundesregierung
- BMWK wurde nie vonseiten der Industrie angebrochen im Bezug auf die AA -> Industrie war nicht involviert, Entscheidungen auf Regierungsebene

Frage: Hatte die DLR spezifisches Interesse an den AA im Zuge des Artemis Programm?

Antwort:

- Artemis Mission mit Ziel Mond und Mars
- Raumfahrtagentur hat nur fachlich beraten, aber nicht zur Unterschrift gedrängt

- Parallel neue Raumfahrtstrategie -> Ziele, Exploration, Flüge zum Mond
- Deutsche Beteiligung mit ESA an Artemis Mission -> Bundesregierung hat großes Interesse and Missionen
- Wollen Folgen der Missionen mitdiskutieren -> Accords Prozess
- Nachteile für Mission bei Nichtunterschrift wären nur Spekulation

Frage: Wie steht Deutschland zu China und der ILRS als Alternative zu den AA?

Antwort:

- Deutschland kennt das ILRS Dokument nicht -> AA waren öffentlich
 - Bundesregierung wurde nie zu ILRS gefragt -> kann sich nicht damit befassen
 - Im Gegensatz: USA kam wegen AA auf DE zu, stand für Fragen zur Verfügung
- China im Weltraum sehr aktiv
 - Keine enge Zusammenarbeit mit China
 - Austausch bei VN in Arbeitsgruppen
 - Vereinzelt kleine Kooperationen über ESA
 - Orientierung an China-Strategie der Bundesregierung

Frage: Wie steht DE zum Mondvertrag?

Antwort:

- UN betonen gesamten rechtlichen Rahmen: Referenz OST und Weltraumverträge (auch Mondvertrag)
 - Mondvertrag wird trotz weniger Unterzeichner indirekt gelebt
 - OST oft abstrakt, konkretere Aspekte im Mondvertrag
- Mondvertrag -> Ratifikation irrelevant, politisches Momentum abgelaufen
 - Aber Umsetzung wird gelebt, z.B. Weltraumausschuss AG Ressourcen: Artikel 11
 - Satelliten, Ressourcen
 - Mondvertrag indirekt praktisch beachtet aber ohne rechtliche Verpflichtungen

Frage: Welche Prinzipien der AA sind am relevantestes oder kontroversesten:

Antwort:

- Informationsaustausch, Rücksichtnahme untereinander
- Kritisch:
 - „safety zones“, Aneignungsverbot -> DE hat geprüft

- Vorteil von Unterschrift der AA: bei weiterer Ausgestaltung von Prinzipien mit am Tisch sitzen und Vorabaustusch über, was AA in Zukunft anstößt, wichtig
- Letztes Wort noch nicht gesprochen

Frage: Hatte DE schon im Voraus ein spezifisches Interesse an bestimmten Thematiken der AA?

Antwort:

- Nein, aber grundsätzlich alle von AA angesprochenen Punkte relevant

Frage: Parallelen zur Governance von anderen staatsfreien Räumen?

Antwort:

- Raumfahrtagentur Workshop innerdeutsch über Ressourcenabbau -> Austausch unter fachlichen Experten
 - Können wir Parallelen / Erfahrungen ziehen aus Bergbau, Tiefseerecht -> Bezug zum Auswärtigen Amt
- Manchmal Abstimmungen zu ähnlichen Leitlinien und Verfahren fachlich nicht möglich
 - Wird stets geprüft

The Artemis Accords: Principles for Cooperation in the Civil Exploration and Use of the Moon, Mars, Comets, and Asteroids for Peaceful Purposes

The Signatories to these Accords;

RECOGNIZING their mutual interest in the exploration and use of outer space for peaceful purposes, and UNDERSCORING the continuing importance of existing bilateral space cooperation agreements;

NOTING the benefit for all humankind to be gained from cooperating in the peaceful use of outer space;

USHERING in a new era of exploration, more than 50 years after the historic Apollo 11 Moon landing and more than 20 years after the establishment of a continuous human presence aboard the International Space Station;

SHARING a common spirit and the ambition that the next steps of humanity's journey in space inspire current and future generations to explore the Moon, Mars, and beyond;

BUILDING upon the legacy of the Apollo program, which benefited all of humankind, the Artemis program will land the first woman and next man on the surface of the Moon and establish, together with international and commercial partners, the sustainable human exploration of the solar system;

CONSIDERING the necessity of greater coordination and cooperation between and among established and emerging actors in space;

RECOGNIZING the global benefits of space exploration and commerce;

ACKNOWLEDGING a collective interest in preserving outer space heritage;

AFFIRMING the importance of compliance with the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, opened for signature on January 27, 1967 ("Outer Space Treaty") as well as the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, opened for signature on April 22, 1968 ("Rescue and

Return Agreement”), the Convention on International Liability for Damage Caused by Space Objects, opened for signature on March 29, 1972 (“Liability Convention”), and the Convention on Registration of Objects Launched into Outer Space, opened for signature on January 14, 1975 (“Registration Convention”); as well as the benefits of coordination via multilateral forums, such as the United Nations Committee on the Peaceful Uses of Outer Space (“COPUOS”), to further efforts toward a global consensus on critical issues regarding space exploration and use; and

DESIRING to implement the provisions of the Outer Space Treaty and other relevant international instruments and thereby establish a political understanding regarding mutually beneficial practices for the future exploration and use of outer space, with a focus on activities conducted in support of the Artemis Program;

COMMIT to the following principles:

SECTION 1 - PURPOSE AND SCOPE

The purpose of these Accords is to establish a common vision via a practical set of principles, guidelines, and best practices to enhance the governance of the civil exploration and use of outer space with the intention of advancing the Artemis Program. Adherence to a practical set of principles, guidelines, and best practices in carrying out activities in outer space is intended to increase the safety of operations, reduce uncertainty, and promote the sustainable and beneficial use of space for all humankind. The Accords represent a political commitment to the principles described herein, many of which provide for operational implementation of important obligations contained in the Outer Space Treaty and other instruments.

The principles set out in these Accords are intended to apply to civil space activities conducted by the civil space agencies of each Signatory. These activities may take place on the Moon, Mars, comets, and asteroids, including their surfaces and subsurfaces, as well as in orbit of the Moon or Mars, in the Lagrangian points for the Earth-Moon system, and in transit between these celestial bodies and locations. The Signatories intend to implement the principles set out in these Accords through their own activities by taking, as appropriate, measures such as mission planning and contractual mechanisms with entities acting on their behalf.

SECTION 2 - IMPLEMENTATION

1. Cooperative activities regarding the exploration and use of outer space may be implemented through appropriate instruments, such as Memoranda of Understanding, Implementing Arrangements under existing Government-to-Government Agreements, Agency-to-Agency arrangements, or other instruments. These instruments should reference these Accords and include appropriate provisions for implementing the principles contained in these Accords.

(a) In the instruments described in this Section, the Signatories or their subordinate agencies should describe the nature, scope, and objectives of the civil cooperative activity;

(b) The Signatories' bilateral instruments referred to above are expected to contain other provisions necessary to conduct such cooperation, including those related to liability, intellectual property, and the transfer of goods and technical data;

(c) All cooperative activities should be carried out in accordance with the legal obligations applicable to each Signatory; and

(d) Each Signatory commits to taking appropriate steps to ensure that entities acting on its behalf comply with the principles of these Accords.

SECTION 3 – PEACEFUL PURPOSES

The Signatories affirm that cooperative activities under these Accords should be exclusively for peaceful purposes and in accordance with relevant international law.

SECTION 4 – TRANSPARENCY

The Signatories are committed to transparency in the broad dissemination of information regarding their national space policies and space exploration plans in accordance with their national rules and regulations. The Signatories plan to share scientific information resulting from their activities pursuant to these Accords with the public and the international scientific community on a good-faith basis, and consistent with Article XI of the Outer Space Treaty.

SECTION 5 – INTEROPERABILITY

The Signatories recognize that the development of interoperable and common exploration infrastructure and standards, including but not limited to fuel storage and delivery systems, landing structures, communications systems, and power systems, will enhance space-based exploration, scientific discovery, and commercial utilization. The Signatories commit to use

reasonable efforts to utilize current interoperability standards for space-based infrastructure, to establish such standards when current standards do not exist or are inadequate, and to follow such standards.

SECTION 6 – EMERGENCY ASSISTANCE

The Signatories commit to taking all reasonable efforts to render necessary assistance to personnel in outer space who are in distress, and acknowledge their obligations under the Rescue and Return Agreement.

SECTION 7 – REGISTRATION OF SPACE OBJECTS

For cooperative activities under these Accords, the Signatories commit to determine which of them should register any relevant space object in accordance with the Registration Convention. For activities involving a non-Party to the Registration Convention, the Signatories intend to cooperate to consult with that non-Party to determine the appropriate means of registration.

SECTION 8 – RELEASE OF SCIENTIFIC DATA

1. The Signatories retain the right to communicate and release information to the public regarding their own activities. The Signatories intend to coordinate with each other in advance regarding the public release of information that relates to the other Signatories' activities under these Accords in order to provide appropriate protection for any proprietary and/or export-controlled information.

2. The Signatories are committed to the open sharing of scientific data. The Signatories plan to make the scientific results obtained from cooperative activities under these Accords available to the public and the international scientific community, as appropriate, in a timely manner.

3. The commitment to openly share scientific data is not intended to apply to private sector operations unless such operations are being conducted on behalf of a Signatory to the Accords.

SECTION 9 – PRESERVING OUTER SPACE HERITAGE

1. The Signatories intend to preserve outer space heritage, which they consider to comprise

historically significant human or robotic landing sites, artifacts, spacecraft, and other evidence of activity on celestial bodies in accordance with mutually developed standards and practices.

2. The Signatories intend to use their experience under the Accords to contribute to multilateral efforts to further develop international practices and rules applicable to preserving outer space heritage.

SECTION 10 – SPACE RESOURCES

1. The Signatories note that the utilization of space resources can benefit humankind by providing critical support for safe and sustainable operations.

2. The Signatories emphasize that the extraction and utilization of space resources, including any recovery from the surface or subsurface of the Moon, Mars, comets, or asteroids, should be executed in a manner that complies with the Outer Space Treaty and in support of safe and sustainable space activities. The Signatories affirm that the extraction of space resources does not inherently constitute national appropriation under Article II of the Outer Space Treaty, and that contracts and other legal instruments relating to space resources should be consistent with that Treaty.

3. The Signatories commit to informing the Secretary-General of the United Nations as well as the public and the international scientific community of their space resource extraction activities in accordance with the Outer Space Treaty.

4. The Signatories intend to use their experience under the Accords to contribute to multilateral efforts to further develop international practices and rules applicable to the extraction and utilization of space resources, including through ongoing efforts at the COPUOS.

SECTION 11 – DECONFLICTION OF SPACE ACTIVITIES

1. The Signatories acknowledge and reaffirm their commitment to the Outer Space Treaty, including those provisions relating to due regard and harmful interference.

2. The Signatories affirm that the exploration and use of outer space should be conducted with

due consideration to the United Nations Guidelines for the Long-term Sustainability of Outer Space Activities adopted by the COPUOS in 2019, with appropriate changes to reflect the nature of operations beyond low-Earth orbit.

3. Consistent with Article IX of the Outer Space Treaty, a Signatory authorizing an activity under these Accords commits to respect the principle of due regard. A Signatory to these Accords with reason to believe that it may suffer, or has suffered, harmful interference, may request consultations with a Signatory or any other Party to the Outer Space Treaty authorizing the activity.

4. The Signatories commit to seek to refrain from any intentional actions that may create harmful interference with each other's use of outer space in their activities under these Accords.

5. The Signatories commit to provide each other with necessary information regarding the location and nature of space-based activities under these Accords if a Signatory has reason to believe that the other Signatories' activities may result in harmful interference with or pose a safety hazard to its space-based activities.

6. The Signatories intend to use their experience under the Accords to contribute to multilateral efforts to further develop international practices, criteria, and rules applicable to the definition and determination of safety zones and harmful interference.

7. In order to implement their obligations under the Outer Space Treaty, the Signatories intend to provide notification of their activities and commit to coordinating with any relevant actor to avoid harmful interference. The area wherein this notification and coordination will be implemented to avoid harmful interference is referred to as a 'safety zone'. A safety zone should be the area in which nominal operations of a relevant activity or an anomalous event could reasonably cause harmful interference. The Signatories intend to observe the following principles related to safety zones:

(a) The size and scope of the safety zone, as well as the notice and coordination, should reflect the nature of the operations being conducted and the environment that such operations are conducted in;

- (b) The size and scope of the safety zone should be determined in a reasonable manner leveraging commonly accepted scientific and engineering principles;
- (c) The nature and existence of safety zones is expected to change over time reflecting the status of the relevant operation. If the nature of an operation changes, the operating Signatory should alter the size and scope of the corresponding safety zone as appropriate. Safety zones will ultimately be temporary, ending when the relevant operation ceases; and
- (d) The Signatories should promptly notify each other as well as the Secretary-General of the United Nations of the establishment, alteration, or end of any safety zone, consistent with Article XI of the Outer Space Treaty.

8. The Signatory maintaining a safety zone commits, upon request, to provide any Signatory with the basis for the area in accordance with the national rules and regulations applicable to each Signatory.

9. The Signatory establishing, maintaining, or ending a safety zone should do so in a manner that protects public and private personnel, equipment, and operations from harmful interference. The Signatories should, as appropriate, make relevant information regarding such safety zones, including the extent and general nature of operations taking place within them, available to the public as soon as practicable and feasible, while taking into account appropriate protections for proprietary and export-controlled information.

10. The Signatories commit to respect reasonable safety zones to avoid harmful interference with operations under these Accords, including by providing prior notification to and coordinating with each other before conducting operations in a safety zone established pursuant to these Accords.

11. The Signatories commit to use safety zones, which will be expected to change, evolve, or end based on the status of the specific activity, in a manner that encourages scientific discovery and technology demonstration, as well as the safe and efficient extraction and utilization of space resources in support of sustainable space exploration and other operations. The Signatories commit to respect the principle of free access to all areas of celestial bodies and all other provisions of the Outer Space Treaty in their use of safety zones. The Signatories

further commit to adjust their usage of safety zones over time based on mutual experiences and consultations with each other and the international community.

SECTION 12 - ORBITAL DEBRIS

1. The Signatories commit to plan for the mitigation of orbital debris, including the safe, timely, and efficient passivation and disposal of spacecraft at the end of their missions, when appropriate, as part of their mission planning process. In the case of cooperative missions, such plans should explicitly include which Signatory has the primary responsibility for the end-of-mission planning and implementation.

2. The Signatories commit to limit, to the extent practicable, the generation of new, long-lived harmful debris released through normal operations, break-up in operational or post-mission phases, and accidents and conjunctions, by taking appropriate measures such as the selection of safe flight profiles and operational configurations as well as post-mission disposal of space structures.

SECTION 13 – FINAL PROVISIONS

1. Building on any consultative mechanisms in preexisting arrangements as appropriate, the Signatories commit to periodically consult to review the implementation of the principles in these Accords, and to exchange views on potential areas of future cooperation.

2. The Government of the United States of America will maintain the original text of these Accords and transmit to the Secretary-General of the United Nations a copy of these Accords, which is not eligible for registration under Article 102 of the Charter of the United Nations, with a view to its circulation to all the members of the Organization as an official document of the United Nations.

3. After October 13, 2020, any State seeking to become a Signatory to these Accords may submit its signature to the Government of the United States for addition to this text.

Statement on the Occasion of the German Artemis Accords Signature

Germany has a long history of successful international cooperation in science and space exploration for peaceful purposes, both within ESA and beyond with its international partners. In the spirit of this ongoing collaboration, the signature of the Artemis Accords by the German Space Agency at DLR strengthens the common goal of DLR and its international partners to pursue programs for astronautical and robotic exploration of space.

On the occasion of the Accords signature, the following shall also be expressed:

The Artemis Accords are a non-binding political declaration expressing a common understanding on mutually beneficial practices among the Artemis programme partners for the future exploration and use of space. They reaffirm the commitment of the Signatories to the peaceful, responsible, and sustainable exploration and use of outer space in accordance with the United Nations Outer Space Treaties, in particular the Outer Space Treaty, and the UN Guidelines for the Long-Term Sustainability of Outer Space Activities (LTS Guidelines). Based on our signature, we will also actively engage in the exchange of ideas among Artemis partners to strengthen the application of the Outer Space Treaties in the context of activities on celestial bodies.

We carry out all our activities under the Artemis programme on the basis of international law and in accordance with the imperative of international cooperation. In this spirit, we will conduct all activities with due regard to the relevant interests of all other States and to the avoidance of contamination, in particular by developing and implementing measures to protect science, the explored space environment and the Earth.

The United Nations Committee on the Peaceful Uses of Outer Space is the central multilateral forum for the further development of space law. Germany will continue to support the development of a binding international legal framework for activities on celestial bodies on the basis of the UN Outer Space Treaties, in particular as a basis for the use of space resources and for an improved exchange of information on space activities between all States Parties.

It is a matter of concern to us to bring in our contributions made to and the experience and expertise gained through the Artemis programme to multilateral cooperation, in particular also at the United Nations, to pave the way for the safe, sustainable, equitable and peaceful use of celestial bodies, based on shared fundamental convictions such as the rule of law, international cooperation, information sharing, sustainability and peaceful purposes.

Recognizing the benefits to all mankind of cooperation in peaceful space exploration, science and commerce, we seek enhanced coordination and cooperation among established and emerging space actors.