# 1AC

### 1AC – Framework

**Presumption and permissibility affirm**

**A] Statements are true before false since if I told you my name, you’d believe me.B] Epistemics – we wouldn’t be able to start a strand of reasoning since we’d have to question that reason. C] Illogical – presuming statements false is illogical since you can’t say things like P and ~P are both wrong. D] Presuming obligations is logically safer since it’s better to be supererogatory than fail to meet an obligation.**

#### The Meta-Ethic is Moral Pluralism; Clashing viewpoints does not require the exclusion of one over another but instead the acceptance that both can be valuable ethical tools. Prefer

#### 1] Empirics- Best studies prove pluralistic tendencies are inevitable

Polzler and Wright 19[Thomas Pölzler and Jennifer Cole Wright- “Empirical research on folk moral objectivism” <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6686698/> NCBI. Published July 5th 2019] Dulles AS

Examining these studies' results more closely, however, makes it less clear whether this interpretation is appropriate (Pölzler, 2018b). Take again Goodwin and Darley's study. In this study, almost 30% of subjects' responses to the disagreement measure and almost 50% of their responses to the truth‐aptness measure fell on the option that the researchers took to be indicative of subjectivism (Goodwin & Darley, 2008, pp. 1347, 1351). Moreover, while some moral statements were dominantly classified as objective (e.g., the above statement about robbery), many others were dominantly classified as nonobjective (e.g., the stem cell research statement). This suggests that subjects in Goodwin and Darley's study may have actually favored what Wright, Grandjean, and McWhite (2013) called “metaethical pluralism,” i.e., they sometimes sided with objectivism and other times with nonobjectivism. More recent studies have by and large confirmed this hypothesis of folk metaethical pluralism. Wright et al. (2013) and Wright, McWhite, and Grandjean (2014), for example, replicated Goodwin and Darley's results, using the exact same measures, but letting subjects classify the presented statements as moral and nonmoral themselves. Objectivity ratings for statements that were dominantly self‐classified as moral varied between as little as 5% and as much as 85%. Research based on different measures yielded high proportions of intrapersonal variation as well (e.g., Beebe, 2014; Beebe, Qiaoan, Wysocki, & Endara, 2015; Beebe & Sackris, 2016; Fisher, Knobe, Strickland, & Keil, 2017; Goodwin & Darley, 2012; Heiphetz & Young, 2017; Wright, 2018; Zijlstra, forthcoming.

#### **2] Only a pragmatic deliberative model accepts ongoing confrontation as legitimate rather than oppositional.** Thus, the standard is promoting pragmatic deliberation.

Serra 1 [Juan Pablo Serra. What Is and What Should Pragmatic Ethics Be? Some Remarks on Recent Scholarship. EUROPEAN JOURNAL OF PRAGMATISM AND AMERICAN PHILOSOPHY. 2009. Francisco de Vitoria College, Humanities Department, Faculty member]

This separation of theory and practice runs parallel to another split, namely, that of ethics and morals or, better put, of ethical theory and moral practice. Peirce denies that morality is subject to rationality and thinks that ethicsisvaluable as a science in a broad sense. But he also regards ethics as a science which bears on human conduct only indirectly, through the examination of past actions and the self-correction of the self in view of future action. In addition, ethics would be a normative knowledge only in so far as it analyzes the adjustment of actions to ends and in so far as it studies the general way in which a good life can be lived. In morals Peirce appeals to instinct and sentiment, and in ethics he recommends the use of logical thinking —just as scientists do. However, even within the framework of his system, it’s not obvious that scientists may so easily set aside their instincts —in fact, instinct (or ‘rational instinct’ as he called it in 1908) plays a significant role in the economy of re- search. Moreover, the statement that in moral issues there may be no possibility of carrying out an inquiry that is truth-oriented is not an uncontroversial one. After all, moralinquiryisperformedin a deliberativeway**,** weighing up argumentations, beliefs andprinciples**,** andcomparingthem either with their probable or conceivable consequences or with lived as well as possible experiencesthatcan be forceful or impingeuponthe deliberative subject in such a way as to acquire the compulsory resistance due to reality. As Misak puts it succint- ly, “the practice of moral deliberation is responsive to experience, reason, argument, and thought experiments... Suchresponsivenessispartofwhatitistomakea moral decision and part of what it is to try to live a moral life” (2000: 52)3. Likewise, this same deliberativeactivityimpliesanefforttoacquirehabits**,** beliefs and principles thatcontributeto a truly freedeliberation which, in turn, can result in creative conclusions. For Peirce, as you get more habit-governed, you become more creative and free, and your selfhood acquires plas- ticity and receptiveness to experience4. Vincent Colapietro has referred to Peirce’s description of human reason in terms of a deliberative rationality (1999: 24). Also, in another place he has explained that deliberation for Peirce is a process of preparation for future action which has to do with the checking of previous acts, the rehearsal in imagination of different roads to be followed by possible conduct and the nurturing of ideals (Colapietro 1997: 270, 281). It is precisely this experi- ment carried out within imagination that generates habits, because, as Peirce says in “A Survey of Pragmaticism”, “it is not the muscular action but the accompanying inward ef- forts, the acts of imagination, that produce the habit” (CP 5.479, 1907). Habits are regular ways of thinking, perceiving and interpreting that generate actions. As such, habits have a huge influence on human behavior, manifest themselves in the con- crete things we do and, at the same time, are formed within those same activities. Even more, according to Peirce, theactivitytakes the formofexperimentation in the inner world; and the conclusion (if it comes to a definite conclusion), is that under given conditions, the interpreter will have formed the habit of acting in a given way whenever he may desire a given kind of result. The real and living logical conclusionisthat habit (CP 5.491, 1907). Much more evidence could be given to support the view that habits are virtually decided (CP 2.435, c.1893) and also that intelligence comprises inward or potential actions that in- fluence the formation of habits (CP 6.286, 1893). Suffice it to say that, according to Peirce, deliberation is a function of the imagination, and that imagination is in itself an experiment which may have unexpected consequences that impose themselves upon the deliberative subject.

#### 3] Resolvability- Thousands of years of metaethical debates have concluded in indecisiveness so a 45-minute debate would be unable to correctly resolve nebulous ethical disputes and identify the correct theory. Resolvability outweighs on jurisdiction since it’s a meta-constraint on the judge’s final jurisdiction.

#### Prefer additionally -

#### 1] Performativity- Responding to our framework concedes the validity of pragmatism since that in and of itself is a process of contestation that pragmatism would say is valuable and necessary for spaces like debate to function.

#### 2] TJFS- Frameworks should be fair/educational like any other argument.

#### A] Inclusion – Deliberation definitionally is a procedural for allowing almost any argumentation in the debate space which controls the internal link to inclusion which is an impact multiplier

#### B] Resource Disparities- Discursive frameworks ensure big squads don’t have a comparative advantage since debates become about quality of arguments rather than quantity and require a higher level of analytic thinking that small schools have.

#### 3] Value Pluralism- Other ethical theories rely on minimalistic criteria as their foundation, our framework resolves this by using these criteria to better inform our judgments LaFollete 2K "Pragmatic Ethics" [Hugh LaFollette](http://www.hughlafollette.com/index.htm) In [Blackwell Guide to Ethical Theory](http://www.hughlafollette.com/papers/b-guide.htm) 2000. Hugh LaFollette is Marie E. and Leslie Cole Professor in Ethics at the University of South Florida St. Petersburg. He is editor-in-chief of The International Encyclopedia of Ethics

Employs criteria, but is not criterial The previous discussions enable us to say more precisely why pragmatists reject a criterial view of morality. Pragmatism's core contention that practiceis primary in philosophy rulesoutthe hope of logically prior criteria. Any meaningful criteria evolve from our attempt to live morally – in deciding what is the best action in the circumstances. Criteriaare not discovered by pure reason, and they arenotfixed. As ends of action, they are always revisable. Asweobtainnewevidenceabout ourselves and our world, and as our worlds changes, wefindthat whatwasappropriatefor the old environment maynotbeconduciveto survival in thenew one. A style of teaching that might have been ideal for one kind institution (a progressive liberal arts college) at one time (the 60s) may be wholly ineffective in another institution (a regional state university) at another time (the 80s). But that is exactly what we would expect of an evolutionary ethic. Neither could criteria be complete. Themoralworldiscomplexandchangeable**.** No set of criteriacouldgiveusunivocalanswersabouthowwe should behave in all circumstances**.** If we cannot develop an algorithm for winning at chess, where there are only eighteen first moves, there is no way to develop an algorithm for living, which has a finitely large number of "first moves." Moreover, while the chess environment (the rules) stays constant, our natural and moral environments do not. We must adapt or fail. While there is always one end of chess -- the game ends when one player wins – the ends of life change as we grow, and asour environmentschange. Finally, we cannot resolve practical moral questions simply by applying criteria. We do not make personal or profession decisions by applying fixed, complete criteria. Why should we assume we should make moral decisions that way? Appropriates insights from other ethical theories Nonetheless, there is a perfectly good sense in which a pragmatic ethic employs what we might call criteria, but their nature and role dramatically differ from that in a criterial morality (Dewey 1985/1932) . Pragmaticcriteriaare not external rules we apply, but aretoolsweuseinmakinginformedjudgements. They embody learning from previous action, they express our tentative efforts to isolate morally relevant features of those actions. These emergentcriteriacanbecomeintegratedinto our habits**,** thereby informingthe waysthat wereactto, think about, and imagine ourworldsand our relations to others. This explains why pragmatists think other theories can provide guidance on how to live morally. Standard moral theories err not because they offer silly moral advice, but because they misunderstand that advice. Othermoral theoriescan help us isolate(and habitually focus on) morallyrelevantfeaturesof action. And pragmatists take help wherever they can get it. Utilitarianism does not provide an algorithm for deciding how to act, but it shapes habits to help us "naturally" attend to the ways that our actions impact others. Deontology does not provide a list of general rules to follow, but it sensitizes us to ways our actions might promote or undermine respect for others. Contractarianism does not resolve all moral issues, but it sensitizes us to the need for broad consensus. That is why it is mistaken to suppose that the pragmatist makes specific moral judgements oblivious to rules, principles, virtues, and the collective wisdom of human experience. The pragmatist absorbs these insights into her habits, and thereby shapes how she habitually responds, and how she habitually deliberates when deliberation is required. This also explains why criterial moralities tend to be minimalistic. They specify minimal sets of rules to follow in order to be moral. Pragmatism, on the other hand, like virtue theories, is more concerned to emphasize exemplary behavior – to use morally relevant features of action to determine the best way to behave, not the minimally tolerable way.

#### 4] Accept aff interps and definitions - causes regress since we can infinitely debate what something means but the aff speaks first which means they should define it However, let me recontextualize their arguments since they can collapse for 6 minutes on something I misunderstood in the 1ar to end the round since the 2ar can’t answer.

#### 5] Rule Following Paradox- There is nothing inherent to a rule that tells us how we ought to follow it, regardless of how correct the rule is. Only deliberation accounts for the diversity of interpretations of our norms.

#### **6]** Resolves Skepticism-

#### A] Discussion between many bodies means that moral uncertainty can be deliberated and resolved.

#### B] Truth only makes sense in groups of people so only they can prescribe action

#### 7] Quantum superposition proves different ethics can exist simultaneously – prag is the only metric to reconcile them

MIT ’19 (Emerging Technology from the arXiv archive page; Covers latest ideas from blog post about arXiv; 03/12/2019; “Emerging Technology from the arXiv archive page”; <https://www.technologyreview.com/2019/03/12/136684/a-quantum-experiment-suggests-theres-no-such-thing-as-objective-reality/>; *MIT Technology Review*; accessed: 11/19/2020; MohulA)

Back in 1961, the Nobel Prize–winning physicist Eugene Wigner outlined a thought experiment that demonstrated one of the lesser-known paradoxes of quantum mechanics. The experiment shows how the strange nature of the universe allows two observers—say, Wigner and Wigner’s friend—to experience different realities. Since then, physicists have used the “Wigner’s Friend” thought experiment to explore the nature of measurement and to argue over whether objective facts can exist. That’s important because scientists carry out experiments to establish objective facts. But if they experience different realities, the argument goes, how can they agree on what these facts might be? That’s provided some entertaining fodder for after-dinner conversation, but Wigner’s thought experiment has never been more than that—just a thought experiment. Last year, however, physicists noticed that recent advances in quantum technologies have made it possible to reproduce the Wigner’s Friend test in a real experiment. In other words, it ought to be possible to create different realities and compare them in the lab to find out whether they can be reconciled. And today, Massimiliano Proietti at Heriot-Watt University in Edinburgh and a few colleagues say they have performed this experiment for the first time: they have created different realities and compared them. Their conclusion is that Wigner was correct—these realities can be made irreconcilable so that it is impossible to agree on objective facts about an experiment. Wigner’s original thought experiment is straightforward in principle. It begins with a single polarized photon that, when measured, can have either a horizontal polarization or a vertical polarization. But before the measurement, according to the laws of quantum mechanics, the photon exists in both polarization states at the same time—a so-called superposition. Wigner imagined a friend in a different lab measuring the state of this photon and storing the result, while Wigner observed from afar. Wigner has no information about his friend’s measurement and so is forced to assume that the photon and the measurement of it are in a superposition of all possible outcomes of the experiment. Wigner can even perform an experiment to determine whether this superposition exists or not. This is a kind of interference experiment showing that the photon and the measurement are indeed in a superposition. From Wigner’s point of view, this is a “fact”—the superposition exists. And this fact suggests that a measurement cannot have taken place. But this is in stark contrast to the point of view of the friend, who has indeed measured the photon’s polarization and recorded it. The friend can even call Wigner and say the measurement has been done (provided the outcome is not revealed). So the two realities are at odds with each other. “This calls into question the objective status of the facts established by the two observers,” say Proietti and co. That’s the theory, but last year Caslav Brukner, at the University of Vienna in Austria, came up with a way to re-create the Wigner’s Friend experiment in the lab by means of techniques involving the entanglement of many particles at the same time. The breakthrough that Proietti and co have made is to carry this out. “In a state-of-the-art 6-photon experiment, we realize this extended Wigner’s friend scenario,” they say. They use these six entangled photons to create two alternate realities—one representing Wigner and one representing Wigner’s friend. Wigner’s friend measures the polarization of a photon and stores the result. Wigner then performs an interference measurement to determine if the measurement and the photon are in a superposition. The experiment produces an unambiguous result. It turns out that both realities can coexist even though they produce irreconcilable outcomes, just as Wigner predicted. That raises some fascinating questions that are forcing physicists to reconsider the nature of reality. The idea that observers can ultimately reconcile their measurements of some kind of fundamental reality is based on several assumptions. The first is that universal facts actually exist and that observers can agree on them. But there are other assumptions too. One is that observers have the freedom to make whatever observations they want. And another is that the choices one observer makes do not influence the choices other observers make—an assumption that physicists call locality. If there is an objective reality that everyone can agree on, then these assumptions all hold. But Proietti and co’s result suggests that objective reality does not exist. In other words, the experiment suggests that one or more of the assumptions—the idea that there is a reality we can agree on, the idea that we have freedom of choice, or the idea of locality—must be wrong. Of course, there is another way out for those hanging on to the conventional view of reality. This is that there is some other loophole that the experimenters have overlooked. Indeed, physicists have tried to close loopholes in similar experiments for years, although they concede that it may never be possible to close them all. Nevertheless, the work has important implications for the work of scientists. “The scientific method relies on facts, established through repeated measurements and agreed upon universally, independently of who observed them,” say Proietti and co. And yet in the same paper, they undermine this idea, perhaps fatally. The next step is to go further: to construct experiments creating increasingly bizarre alternate realities that cannot be reconciled. Where this will take us is anybody’s guess. But Wigner, and his friend, would surely not be surprised.

#### 8] Social relations are dynamic and constantly being decentered from normative systems of knowledge; only pragmatism’s understanding of interactive knowledge production can mitigate entrenched violence.

Kadlec 8, Alison. "Critical pragmatism and deliberative democracy." Theoria 55.117 (2008): 54-80. (doctorate in political science from the University of Minnesota and bachelor's degrees from Michigan State University in political theory, constitutional democracy and English literature.)//Dulles AS

Social Intelligence: The Critical Potential Lived Experience Though human nature is intersubjectively generated on an ongoing basis, we are not merely the products of Platonic conceptions of ourselves. Individuals are cultivated in and by society through experiential processes in which we are acted upon, and act back upon a dynamic environment. For Dewey, 'experience' connotes a very specific process that stands in stark contrast to the traditional conception of experience as a matter of private consciousness. Because Dewey's notion of experience is **social, active, and educative,** what he calls the 'experiential continuum' is the process by which we are best able to develop social intelligence. The 'experiential continuum' is characterised by our enduring and undergoing the consequences of our actions, and intelligence is to be understood as the self-conscious and ongoing process of adjusting our attitudes in light of these consequences.25 In The Public and Its Problems , Dewey gives this view of intelligence a decidedly deliberative spin when he says, 'we lie, as Emerson said, in the lap of an immense intelligence. But that intelligence is dormant and its communications are broken, inarticulate and faint until it possesses the local community as its medium'.26 In 'Ethical Principles Underlying Education', Dewey is more explicit in explaining his view of the relationship between social intelligence and the normative commitment to democracy in his declaration that 'ultimate moral motives and forces are nothing more nor less than social intelligence the power of observing and comprehending social situations and social power trained capacities of control at work in the service of social interest and aims'.27 Dewey's unflagging faith in the transformative potential of social intelligence intrinsic to democracy as a way of life **is not Utopian**, nor is it based on a belief that all problems are finally solvable. Rather, it expresses a moral commitment that suggests that a working faith in social intelligence is our best shot at crafting habits and institutions that will further encourage us to identify **new opportunities for the expansion of our capacities** moving forward. The upshot here is that democracy as a way of life means, above all, that we stop thinking of democracy as a thing and start thinking about it as a way. Democracy is belief in the ability of human experience to generate the aims and methods by which further experience will grow in ordered richness. . . . Democracy is the faith that the process of experience is more important than any special result attained, so that the special results achieved are of ultimate value only as they are used to enrich and order the ongoing process. Since the process of experience is capable of being **educative**, faith in democracy is all one with faith in experience and education. All ends and values that are cut off from the ongoing process become arrests and fixations. They strive to fixate what has been gained instead of using it to open the road and point the way to new and better experiences.28 On this account, social intelligence is not a possession, it is a de-centred and educative process of ordering our **experiences** through manifold **communication**. The guiding principles, then, of social intelligence are 1) the protection and expansion of our capacity for free and communicative inquiry and 2) the protection and expansion of our capacity to perceive the shared consequences of our habits and policies. We judge the goodness or badness of these consequences by evaluating the way they act back on and impact our individual capacities for free inquiry that inform the ongoing development of social intelligence In turn, the 'proper conditions' for social intelligence then are those that increase our ability to perceive the complex shared consequences of our choices and practices. Intelligence is social in pragmatism because it requires the development of both firstand second-order attitudes that can only take place in an ongoing process of communication. Free inquiry is not just a matter of having the opportunity to seek information that will allow for the generation of thoughtful attitudes about issues, it is also a matter of appreciating and harnessing the democratic potential of second-order attitudes (attitudes about our attitudes). We are not passive receivers of information, **but dynamic interactors**, and therefore intelligence is intrinsically communicative. Free inquiry is the engine of social intelligence, which is in turn based on our willingness to have our firstorder attitudes adjusted in light of our second-order attitudes.29 The ongoing mutual adjustment of our first-order and second-order attitudes through a back and forth process between the two emerges only to the extent that we have the opportunities to communicate freely with others, and this is none other than the 'method' of social intelligence. The goal of communicative inquiry then is to build an ever richer context for the ongoing development of our ability to perceive the relationship between our beliefs, practices, and institutions. By taking a principal focus on increasing our ability for evermore sophisticated perception of the consequences of our habits of thought and action, we will be better equipped to distinguish between those habits that improve and those that impede our capacities for free inquiry. This is the material of problem-solving, as it is just this capacity for free inquiry that makes it possible to identify common problems in a way that they may be productively addressed. Turning back to the challenges leveled by radical democratic theorists, we can begin to see the opportunities made possible by critical pragmatism. Tapping into the critical potential of lived experience under conditions of unalterable changefulness begins with the therapeutic recognition that there is no such thing as a unified field of power directed entirely by stable and fixed interests. The first implication here is that there are always new opportunities to exploit cracks and fissures in various structurally **entrenched forms of power**. Second, the essentially complexity and flux of our world is always **producing new opportunities for transformative resistance** and for the development of more creative approaches to meaningful deliberation. Critical pragmatism pivots on the notion that under such conditions what we most need are not fixed and static foundations, we need the flexible habits of inquiry and **communication** that make it possible to both identify pernicious obstacles to deliberation and to challenge, circumvent, or neutralise their impact.

#### 9] Materiality- Our framework moves away from abstraction and understands knowledge as changing in order to base social change and revision of ideas. Glaude 7’ Eddie S. (Eddie S. Glaude Jr. is the chair of the Center for African-American Studies and the William S. Tod Professor of Religion and African-American Studies at Princeton University.) In a Shade of Blue : Pragmatism and the Politics of Black America. University of Chicago Press, 2007. EBSCOhost. (5-7) Bracketed for grammer. Dulles AS

In a Shade of Blue is my contribution to the tradition I have just sketched. My aim is to think through some of the more pressing conceptual problems confronting African American political life, and I do so as a Deweyan prag-matist. I should say a bit about what I mean by this self-description. John Dewey thought of philosophy as a form of cultural and social criticism. He held the view that philosophy, properly understood as a mode of wis-dom, ought to aid us in our efforts to overcome problematic situations and worrisome circumstances. The principal charge of the philosopher, then, is to deal with the problems of human beings, not simply with the problems of philosophers. For Dewey, over the course of his long career, this involved bridging the divide between science, broadly understood, and morals—a divide he traced to a conception of experience that has led philosophers over the centuries to tilt after windmills. Dewey declared, “The problem of restoring integration and co-operation between man’s beliefs about the world in which he lives and his beliefs about values and purposes that should direct his conduct is the deepest problem of any philosophy that is not isolated from life.”9Dewey bases this conclusion on several features of his philosophy: (1) anti foundationalism, (2) experimentalism, (3) contextualism, and (4) soli-darity.10 Antifoundationalism, of course, is the rejection of foundations of knowledge that are beyond question. Dewey, by contrast, understands knowledge to be thefruitof our undertakingsas we seek “the enrichment of our immediate experience through **the** control over action it exercises.”11He insists that we turn our attention from supposed givens to actual consequences, pursuinga future fundamentally grounded in values shaped by experience and realized in our actions. This view makes clear the experimental function of knowledge. Dewey emphasized that knowledge entails efforts to control and select future experience and that we are always con-fronted with the possibility of error when we act. We experiment or tinker**,** withthe understanding that all facts are fallible and, as such, occasionally afford us the opportunity for revision.12Contextualism refers to an understanding of beliefs, choices, and actions as historically conditioned. Dewey held the view that inquiry, or the pursuit of knowledge, is value-laden, in the sense that we come to problems with interests and habits that orient us one way or another, and that such pursuits are also situational, in the sense that “knowledge is pursued and produced somewhere, some when, and by someone.”13Finally, solidaritycaptures the associational and cooperative dimensions of Dewey’s thinking. Dewey conceives of his pragmatism as “an instrument of social improvement” aimed principally at expanding democratic **life** andbroadeningtheground of individual self-development**.**14Democracy, for him, constitutes more than a body of formal procedures; it is a form of life that requires constant attention if we are to secure the ideals that purportedly animate it. Individuality is understood as developing one’s unique capacities within the context of one’s social relations and one’s community. The formation of the democratic character so important to our form of associated living involves, then, a caring disposition toward the plight of our fellows and a watchful concern for the well-being of our democratic life.

### 1AC – Offense

#### Plan: The appropriation of outer space by private entities is unjust.

We’ll defend a leasing regime operationalized by the UN Committee on Peaceful Uses of Outer Space (COPUOS) establishing an International Outer Space Authority (IOSA).

#### The appropriation of space by private entities isn’t value neutral but is sutured in a discourse of the cosmic elite and unequal IR.

Stockwell 20 [Samuel Stockwell (Research Project Manager, the Annenberg Institute at Brown University). “Legal ‘Black Holes’ in Outer Space: The Regulation of Private Space Companies”. E-International Relations. Jul 20 2020. Accessed 12/7/21. <https://www.e-ir.info/2020/07/20/legal-black-holes-in-outer-space-the-regulation-of-private-space-companies/> //Xu]

The US government’s support for private space companies is also likely to lead to the reinforcement of Earth-bound wealth inequalities in space. Many NewSpace actors frame their long-term ambitions in space with strong anthropogenic undertones, by offering the salvation of the human race from impending extinction through off-world colonial developments (Kearnes & Dooren: 2017: 182). Yet, this type of discourse disguises the highly exclusive nature of these missions. Whilst they seem to suggest that there is a stake for ordinary citizens in the vast space frontier, the reality is that these self-described space pioneers are a member of a narrow ‘cosmic elite’ – “founders of Amazon.com, Microsoft, Pay Pal… and a smattering of games designers and hotel magnates” (Parker, 2009: 91). Indeed, private space enterprises have themselves suggested that they have no obligation to share mineral resources extracted in space with the global community (Klinger, 2017: 208). This is reflected in the speeches of individuals such as Nathan Ingraham, a senior editor at the tech site EngadAsteroid mining, who claimed that asteroid mining was “how [America is] going to move into space and develop the next Vegas Strip” (Shaer, 2016: 50). Such comments highlight a form of what Beery (2016) defines as ‘scalar politics’. In similar ways to the ‘scaling’ of unequal international relations that has constituted our relationship with outer space under the guise of the ‘global commons’ (Beery, 2016: 99), private companies – through their anthropogenic discourse – are scaling existing Earth-bound wealth inequalities and social relations into space by siphoning off extra-terrestrial resources. By constructing their endeavours in ways that appeal to the common good, NewSpace actors are therefore concealing the reality of how commercial resource extraction serves the exclusive interests of their private shareholders at the expense of the vast majority of the global population.

### 1AC – Underview

#### 1] AFF theory is no RVI, Drop the debater, competing interps, under an interp that aff theory is legit A] infinite abuse since otherwise it would be impossible to check NC abuse B] it would justify the aff never getting to read theory which is a reciprocity issue C] Time crunched 1ar means it becomes impossible to justify paradigm issues and win the shell. And, reject theory on spikes since it would be a contradiction since they indict each other, but prefer mine since they are lexically prior.

#### 2] AFF fairness issues come prior to NC arguments since the 1ar can’t engage on multiple layers if there is a skew since the speech is already time-crunched. All your arguments concede the importance of fairness since you assume your arguments will be evaluated fairly when you enter the round – even fairness impact turns.

#### 3] All K’s must defend a concrete policy alternative A]Critical ed: Policy alts are better for your kritik, it allows us the ability to engage in productive discussions rather than endless critic of each other’s reps without solutions B] Engagement: There are a million different reps or things I can do that someone disagrees with C] otherwise mental gymnastics which reifies oppression since we don't acknowledge the states inevitability which promotes false hope.

#### 4] Reject recontextualizations of fairness A] contradictions – my fairness arguments would indict yours but yours would indict mine which means prefer the aff on sequencing B] common usage – in-round exclusion is the only inclusive interp since otherwise you can arbitrarily assert a definition based on a random philosophy.

#### 5] All K links must be checked in CX A] Regress – infinite number of indirect things the aff can link to, which means you’d always have something to read insofar as we don't decide upon the link in CX.

#### 6] Interpretation: The negative must concede the affirmative framework if it is not morally repugnant and the advocacy is topical and disclosed

#### Violation: they didn’t

#### Prefer-

#### A] Time skew- Winning the negative framework moots 6 minutes of 1AC offense – that outweighs on quantifiability and reversibility – I can’t get back time lost and it’s the only way to measure abuse

#### B] Topic Ed- Every debate would just be a framework debate which means we never get access to core topic lit – that outweighs on time frame – we only have 2 months

### 1AC – Advantage

#### Space arms control talks are in-progress now – their success solves a space arms race.

Kimball 21 [Daryl G. Kimball, Executive Director of the Arms Control Association; B.A. in Political Science and Diplomacy/Foreign Affairs, “A Small Step Toward an ASAT Ban,” December 2021, *Arms Control Today*, https://www.armscontrol.org/act/2021-12/focus/small-step-toward-asat-ban, EA]

Last month, the UN General Assembly First Committee, responsible for international security, approved a compromise resolution that sets into motion a new open-ended working group to develop rules of the road for military activities in space. If key countries, including the United States, provide leadership, the initiative could help advance progress toward legally binding measures designed to prohibit counterspace activities that threaten international security, beginning with a ban on land-based anti-satellite (ASAT) weapons.

A core rationale for the resolution, which was sponsored by the United Kingdom, is “that the creation of long-lived orbital debris arising from the deliberate destruction of space systems increases the risk of in-orbit collisions and the potential for misunderstanding and miscalculations that could lead to conflict.”

As if to underscore the threat posed by ASAT weapons, on Nov. 15, Russia launched an interceptor from its Nudol ground-based ASAT system to destroy one of its own aging satellites in low Earth orbit. The collision created at least 1,500 pieces of trackable debris that will pose a threat to orbiting objects for years to come.

Russia is not the only nation to act in such an irresponsible manner. China, the United States, and India have also demonstrated the ability to destroy satellites with ground- or air-launched missiles. In 1985, the United States successfully tested an air-launched missile to destroy a weather satellite. In 2007, China used a ground-based SC-19 ballistic missile to destroy a weather satellite. In 2008, the United States used a modified ship-based SM-3 missile defense interceptor to destroy a failed U.S. intelligence satellite. In 2019, India used a ground-based Prithvi ballistic missile to destroy one of its own target satellites.

Each of these demonstrations of ASAT weapons capabilities is destabilizing. If these and other potentially hostile activities in space are not stopped, an acceleration of a space arms race is all but certain.

The 1967 Outer Space Treaty prohibits the placement of nuclear weapons in space, but there are no restrictions on other types of weapons in that domain. Efforts to launch talks that might produce new understandings on maintaining the peaceful use of space have been stymied for years.

China and Russia have long advocated for a treaty that only bars the placement of any weapons in space. Their proposal, called the Prevention of the Placement of Weapons in Outer Space (PPWT), defines a “space weapon” as an object placed into orbit with the intent of harming other space objects. This means that the Russian Nudol system, which flies a suborbital trajectory, would not be a violation. But their proposed ban would restrict potential U.S. efforts to develop space-based missile defense interceptors while allowing suborbital ASAT capabilities.

For years, the United States has been wary of any legally binding restrictions on ASAT systems in part because they might restrict U.S. ground-based missile defense capabilities or a possible space-based kinetic anti-missile system that could involve a number of orbiting interceptors that provide a thin defense against intercontinental missiles.

But earlier this year, President Joe Biden’s Interim National Security Strategic Guidance stated that the United States “will lead in promoting shared norms on space.” The U.S. National Space Policy, issued in December 2020 by the Trump administration, said Washington shall consider “proposals and concepts for arms control measures if they are equitable, effectively verifiable, and enhance the national security of the United States and its allies.”

Curiously, although Beijing and Moscow voted “no” on the UK resolution for the working group on preventing an arms race in outer space, they refrained from pushing for discussions in a UN-sponsored forum for their PPWT proposal. This may be because the UK resolution allows for consideration by the new working group of legally binding measures of the kind that Russia and China have pursued, as well as voluntary rules designed to constrain threatening military activities.

The UK resolution, which was approved 163–8 with nine abstentions, is expected to win final approval by the UN General Assembly in December. It would authorize the working group to begin operating in 2022 with a final report due to the General Assembly in the fall of 2023. To its credit, the resolution also emphasized the need for verification of legally binding arms control regarding space systems.

The UK-led initiative is a small but much-needed breakthrough that creates the potential for positive results. As the process unfolds, the United States, Russia, China, and India could help build momentum and reduce tensions by declaring unilateral moratoriums on any further testing of their ASAT weapons that could create dangerous orbital debris and agree to participate in the working group next year.

Without commonsense rules of the road, a dangerous, destabilizing offensive-defensive space arms competition is on the way. It is past time for key states to engage in productive dialogue on space security, with a focus on halting ASAT weapons.

#### Space Arms Races go nuclear – UNCOPUOS has the best shot of averting them.

Grego 18 [Laura Grego, Stanton Nuclear Security Fellow at MIT’s Laboratory for Nuclear Security and Policy, on leave from the Union of Concerned Scientists’ Global Security Program, where she is senior scientist and research director, “Space and Crisis Stability,” 03/19/18, https://www.law.upenn.edu/live/files/7804-grego-space-and-crisis-stabilitypdf, EA]

For the foreseeable future, military tensions between the United States, China, and Russia are likely to remain high, as are those between China and India. Even absent intentional confrontation, regional problems, such as those in the Baltics and East and South Asia, have the potential to draw these actors into conflict. Thus, it is imperative to pay attention to any pathways that could lead an actor considering crossing the nuclear threshold, or approaching it very closely.

The United States and Russia continue to retain large nuclear arsenals on high alert1 . Each are developing new strategic weapons, including hypersonic conventional prompt global strike systems with a suggestion mission of holding ground-based anti-satellite weapons at risk.2 Russia has declared the existence of novel nuclear delivery systems as a response to US missile defense systems,3 weapons which complicate the management of crises. China is reportedly considering increasing the size, capacity and alert status of its nuclear weapons delivery systems4 and is also developing new kinds of strategic weapons. China is also developing hypersonic weapons,5 and the ingredients for an arms race around these technologies is in place. India continues to increase the sophistication of its strategic posture. And India, China, Russia and the United States have or are pursuing missile defense technologies that are important both in the nuclear realm but in space issues, since missile defenses present demonstrated or inherent antisatellite capabilities.

Thus it is critical to ensure that in times of tension, no actor escalates the crisis inadvertently or against their better judgment, and that misperception does not play an important role in the initiation or progress of the crisis. And that hostilities, if initiated, resolve as quickly as possible. Thomas Schelling‘s encapsulated an aspect of this idea in his landmark work this way:

This is the problem of surprise attack. If surprise carries an advantage, it is worth while [sic] to avert it by striking first. Fear that the other may be about to strike in the mistaken belief that we are about to strike gives us a motive for striking, and so justifies the other‘s motive. But if the gains from even successful surprise are less desired than no war at all, there is no “fundamental” basis for an attack by each side. Nevertheless, it look as though a modest temptation on each side to sneak in the first place — a temptation too small by itself to motivate an attack — might become compounded through a process of interacting expectations, with additional motive for attack being produced by successive cycles of ―He thinks we think he thinks we think … ~~he~~ think we think ~~he~~‘ll attack; so he thinks we will; so he will; so we must.6

This suggests that it is important to make the advantage of surprise attack negligible and the disadvantages as great as possible, to make sure that all actors understand this, and to make sure that actors have as clear an understanding of each other‘s motivations as possible to avoid miscalculation.

In the last twenty years, space assets have become important not only for strategic missions but also increasingly underpin conventional military force for modern militaries, and especially those with expeditionary forces, such as the United States. They are essential not only for militaries, but are a critical provider of essential civilian, commercial, and scientific services. Not only do satellites perform many more missions than they have in the past, there are many more spacefaring nations. While most satellites belong to the United States, Russia, and China, more than sixty countries own satellites or a large stake in one.7

At the same time, the technologies that are useful for holding satellites at risk have grown significantly in sophistication and capacity even in the last decade, and have become more widely available. This is particularly problematic because attacks on satellites can create or escalate terrestrial crises in potentially difficult to predict ways. The world is drifting towards a space regime that faces an ever more prevalent and more sophisticated anti-satellite technology and greater numbers and types of targets in space, with very little mutual understanding about how actions in space are perceived.

While space‘s foundational legal document, the 1967 Outer Space Treaty, sets out the principles by which space is used and provides a number of useful, most recognize that more is needed to secure lasting peace on earth and the long-term health of the space environment. Different stakeholders are tackling space security issues from different angles. Under the aegis of the United Nations Conference on Disarmament‘s (UNCD) Prevention of an Arms Race in Space (PAROS) agenda item, Russia and China have invested in the Treaty for the Prevention of the Placement of Weapons in Outer Space, a comprehensive ban on the deployment of space-based weapons and on threats of any kind against satellites. 8

The United States has stated that it sees little value in this treaty, but has not proposed revisions that would make it more acceptable nor suggested its own preferred legally-binding treaty. And the UNCD has struggled to extricate itself from a deadlock that has kept it from moving forward on discussions on this (and all other) topics. Others have suggested a ban on destructive anti-satellite weapons development and testing,9 and limits on exoatmospheric missile defense tests.10 These efforts have not yet produced any appreciable progress.

Others prefer the approach of starting with confidence building and transparency measures that are politically binding rather than legally binding. The European Union moved forward a Code of Conduct for Outer Space Activities, 11 which would set out rules of the road for space, creating transparency and building confidence. It did not address directly core security issues, and the gestures it made in this direction (the requirement by the United States that it include a specific reference to the right of self-defense) created disagreements serious enough to not be easily addressed in this format. The process hit a wall in 2015. A United Nations Group of Governmental Experts, convened to consider TCBMs for space, produced a consensus document,12 though for a number of reasons, little progress has been made on implementing them.13

Perhaps the greatest progress in creating new guidelines has come under the aegis of protecting the long-term sustainability of space. (While the long-term sustainability of space does imply that core security questions are solved enough to not threaten the space environment, work on this topic does not take the issue head-on.) The United Nations Committee on the Peaceful Uses of Outer Space has drafted a set of such guidelines which will be referred to the General Assembly in 2018.14

For its part, the United States, currently the most heavily invested in space in sheer capacity and in posture, is investing significant intellectual energy in creating a deterrence strategy to protect its military interests in space. While this is closely related to crisis stability, this work is distinctly from a US point of view.

Each of these approaches have something distinct to offer. The aim of this paper, however, is to look at the issue differently and to use crisis stability (rather than, e.g., preventing an arms race, preserving the space environment) as an organizing principle or lens to help identify which facets of space activities are particularly dangerous, and to prioritize the existing initiatives, as well as to offer other unilateral and collaborative actions that can help reduce the pathways to confrontation between nuclear powers.

Why space is a particular problem for crisis stability

For a number of reasons, space poses particular challenges in preventing a crisis from starting or from being managed well. Some of these are to do with the physical nature of space, such as the short timelines and difficulty of attribution inherent in space operations. Some are due to the way space is used, such as the entanglement of strategic and tactical missions and the prevalence of dual-use technologies. Some are due to the history of space, such the absence of a shared understanding of appropriate behaviors and consequences, and a dearth of stabilizing personal and institutional relationships. While some of these have terrestrial equivalents, taken together, they present a special challenge.

The vulnerability of satellites and first strike incentives

Satellites are inherently fragile and difficult to protect; in the language of strategic planners, space is an “offense-dominant” regime. This can lead to a number of pressures to strike first that don‘t exist for other, better-protected domains. Satellites travel on predictable orbits, and many pass repeatedly over all of the earth‘s nations. Low-earth orbiting satellites are reachable by missiles much less capable than those needed to launch satellites into orbit, as well as by directed energy which can interfere with sensors or with communications channels. Because launch mass is at a premium, satellite armor is impractical. Maneuvers on orbit need costly amounts of fuel, which has to be brought along on launch, limiting satellites‘ ability to move away from threats. And so, these very valuable satellites are also inherently vulnerable and may present as attractive targets.

Thus, an actor with substantial dependence on space has an incentive to strike first if hostilities look probable, to ensure these valuable assets are not lost. Even if both (or all) sides in a conflict prefer not to engage in war, this weakness may provide an incentive to approach it closely anyway.

A RAND Corporation monograph commissioned by the Air Force15 described the issue this way:

First-strike stability is a concept that Glenn Kent and David Thaler developed in 1989 to examine the structural dynamics of mutual deterrence between two or more nuclear states.16 It is similar to crisis stability, which Charles Glaser described as “a measure of the countries‘ incentives not to preempt in a crisis, that is, not to attack first in order to beat the attack of the enemy,”17 except that it does not delve into the psychological factors present in specific crises. Rather, first strike stability focuses on each side‘s force posture and the balance of capabilities and vulnerabilities that could make a crisis unstable should a confrontation occur.

For example, in the case of the United States, the fact that conventional weapons are so heavily dependent on vulnerable satellites may create incentives for the US to strike first terrestrially in the lead up to a confrontation, before its space-derived advantages are eroded by anti-satellite attacks.18 Indeed, any actor for which satellites or space-based weapons are an important part of its military posture, whether for support missions or on-orbit weapons, will feel “use it or lose it” pressure because of the inherent vulnerability of satellites.

Short timelines and difficulty of attribution

The compressed timelines characteristic of crises combine with these “use it or lose it” pressures to shrink timelines. This dynamic couples dangerously with the inherent difficulty of determining the causes of satellite degradation, whether malicious or from natural causes, in a timely way.

Space is a difficult environment in which to operate. Satellites orbit amidst increasing amounts of debris. A collision with a debris object the size of a marble could be catastrophic for a satellite, but objects of that size cannot be reliably tracked. So a failure due to a collision with a small piece of untracked debris may be left open to other interpretations. Satellite electronics are also subject to high levels of damaging radiation. Because of their remoteness, satellites as a rule cannot be repaired or maintained. While on-board diagnostics and space surveillance can help the user understand what went wrong, it is difficult to have a complete picture on short timescales. Satellite failure on-orbit is a regular occurrence19 (indeed, many satellites are kept in service long past their intended lifetimes).

In the past, when fewer actors had access to satellite-disrupting technologies, satellite failures were usually ascribed to “natural” causes. But increasingly, even during times of peace operators may assume malicious intent. More to the point, in a crisis when the costs of inaction may be perceived to be costly, there is an incentive to choose the worst-case interpretation of events even if the information is incomplete or inconclusive.

Entanglement of strategic and tactical missions

During the Cold War, nuclear and conventional arms were well separated, and escalation pathways were relatively clear. While space-based assets performed critical strategic missions, including early warning of ballistic missile launch and secure communications in a crisis, there was a relatively clear sense that these targets were off limits, as attacks could undermine nuclear deterrence. In the Strategic Arms Limitation Treaty, the US and Soviet Union pledged not to interfere with each other‘s “national technical means” of verifying compliance with the agreement, yet another recognition that attacking strategically important satellites could be destabilizing.20 There was also restraint in building the hardware that could hold these assets at risk.

However, where the lines between strategic satellite missions and other missions are blurred, these norms can be weakened. For example, the satellites that provide early warning of ballistic missile launch are associated with nuclear deterrent posture, but also are critical sensors for missile defenses. Strategic surveillance and missile warning satellites also support efforts to locate and destroy mobile conventional missile launchers. Interfering with an early warning sensor satellite might be intended to dissuade an adversary from using nuclear weapons first by degrading their missile defenses and thus hindering their first-strike posture. However, for a state that uses early warning satellites to enable a “hair trigger” or launch-on-attack posture, the interference with such a satellite might instead be interpreted as a precursor to a nuclear attack. It may accelerate the use of nuclear weapons rather than inhibit it.

Misperception and dual-use technologies

Some space technologies and activities can be used both for relatively benign purposes but also for hostile ones. It may be difficult for an actor to understand the intent behind the development, testing, use, and stockpiling of these technologies, and see threats where there are none. (Or miss a threat until it is too late.) This may start a cycle of action and reaction based on misperception. For example, relatively low-mass satellites can now maneuver autonomously and closely approach other satellites without their cooperation; this may be for peaceful purposes such as satellite maintenance or the building of complex space structures, or for more controversial reasons such as intelligence-gathering or anti-satellite attacks.

Ground-based lasers can be used to dazzle the sensors of an adversary‘s remote sensing satellites, and with sufficient power, they may damage those sensors. The power needed to dazzle a satellite is low, achievable with commercially available lasers coupled to a mirror which can track the satellite. Laser ranging networks use low-powered lasers to track satellites and to monitor precisely the Earth‘s shape and gravitational field, and use similar technologies. 21

Higher-powered lasers coupled with satellite-tracking optics have fewer legitimate uses. Because midcourse missile defense systems are intended to destroy long-range ballistic missile warheads, which travel at speeds and altitudes comparable to those of satellites, such defense systems also have inherent ASAT capabilities. In fact, while the technologies being developed for long-range missile defenses might not prove very effective against ballistic missiles—for example, because of the countermeasure problems associated with midcourse missile defense— they could be far more effective against satellites. This capacity is not just theoretical. In 2007, China demonstrated a direct-ascent anti-satellite capability which could be used both in an ASAT and missile defense role, and in 2009, the United States used a ship-based missile defense interceptor to destroy a satellite, as well. US plans indicated a projected inventory of missile defense interceptors with capability to reach all low earth orbiting satellites in the dozens in the 2020s, and in the hundreds by 2030.22

Discrimination

The consequences of interfering with a satellite may be vastly different depending on who is affected and how, and whether the satellite represents a legitimate military objective. However, it will not always be clear who the owners and operators of a satellite are, and users of a satellite‘s services may be numerous and not public. Registration of satellites is incomplete23 and current ownership is not necessarily updated in a readily available repository. The identification of a satellite as military or civilian may be deliberately obscured. Or its value as a military asset may change over time; for example, the share of capacity of a commercial satellite used by military customers may wax and wane. A potential adversary‘s satellite may have different or additional missions that are more vital to that adversary than an outsider may perceive. An ASAT attack that creates persistent debris could result in significant collateral damage to a wide range of other actors; unlike terrestrial attacks, these consequences are not limited geographically, and could harm other users unpredictably.

In 2015, the Pentagon‘s annual wargame, or simulated conflict, involving space assets focused on a future regional conflict. The official report out24 warned that it was hard to keep the conflict contained geographically when using anti-satellite weapons:

As the wargame unfolded, a regional crisis quickly escalated, partly because of the interconnectedness of a multi-domain fight involving a capable adversary. The wargame participants emphasized the challenges in containing horizontal escalation once space control capabilities are employed to achieve limited national objectives.

Lack of shared understanding of consequences/proportionality

States have fairly similar understandings of the implications of military actions on the ground, in the air, and at sea, built over decades of experience. The United States and the Soviet Union/Russia have built some shared understanding of each other‘s strategic thinking on nuclear weapons, though this is less true for other states with nuclear weapons. But in the context of nuclear weapons, there is an arguable understanding about the crisis escalation based on the type of weapon (strategic or tactical) and the target (counterforce—against other nuclear targets, or countervalue—against civilian targets).

Because of a lack of experience in hostilities that target space-based capabilities, it is not entirely clear what the proper response to a space activity is and where the escalation thresholds or “red lines” lie. Exacerbating this is the asymmetry in space investments; not all actors will assign the same value to a given target or same escalatory nature to different weapons. For example, the United States is the country most heavily dependent on military space assets. Its proportionally higher commitment to expeditionary forces make this likely to be true well into the future. So while the United States seeks to create a deterrence framework, punishment-based deterrence would not likely target its adversary‘s space assets. But then there is difficulty finding target on the ground that would be credible but also not unpredictably escalate a crisis. If an American military satellite were attacked but without attendant human casualties (‗satellites have no mothers‘), retaliation on an adversary‘s ground-based target is likely to escalate the conflict, perhaps justifying the adversary‘s subsequent claim to self-defense, even if the initial satellite attack didn‘t support such a claim.

Little experience in engaging substantively in these issues

Related to this issue is that there is relatively little experience among the major space actors in handling a crisis with the others. The United States and the Soviet Union, then Russia, have had a long history of strategic discussions and negotiations. This built up a shared understanding of each other‘s point of view, developed relationships between those conducting those discussions, and created bureaucracies and expertise to support those discussions. This experience and these relationships are important to interpreting events and to resolving disputes before they turn into a crisis, and to managing one once it begins. There is nothing like this level of engagement around space issues between these two states, and much less between the US and China.

One of the participants in a 2010 US space war game, a diplomatic veteran, imagined25 how things would play out if one or more militarily important US satellites failed amidst a crisis with an adversary known to have sophisticated offensive cyber and space capabilities:

The good news is that there has never been a destructive conflict waged in either the space or cyber domains. The bad news is that no one around the situation room table can cite any history from previous wars, or common bilateral understandings with the adversary, relating to space and cyber conflict as a guide to what the incoming reports mean, and what may or may not happen next.

This is the big difference between the space-cyber domains, and the nuclear domain. There is, in this future scenario, no credible basis for anyone around the president to attribute restraint to the adversary, no track record from which to interpret the actions by the adversary. There is no crisis management history: the president has no bilateral understandings or guidelines from past diplomatic discussions, and no operational protocols from previous incidents where space and cyber moves and counter-moves created precedents. Perhaps the adversary intended to make a point with one series of limited attacks, and hoped for talks with Washington and a compromise; but for all the president knows, sitting in the situation room, the hostile actions taken against America‘s space assets and information systems are nothing less than early stages of an all-out assault on US interests.

#### The plan pushes them over the edge by granting UN COPUOS new authority in line with its existing mandates – any other process fails.

Qizhi 86 [He Qizhi, member of the Governing Board of the Chinese Society of International Law, “On strengthening the role of COPUOS: Maintaining outer space for peaceful uses,” 1986, *Space Policy*, Vol. 2, Issue 1, https://www.sciencedirect.com/science/article/abs/pii/0265964686900032, EA]

The United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) is the first and foremost among multinational organs working for the promotion of peaceful uses of space science and technology. COPUOS has become the forum for elaborating internationally accepted legal principles governing space activities. It has produced five international conventions on the exploration and peaceful uses of outer space, constituting the fundamental body of international space law. A number of other legal items - such as the draft principles on remote sensing from space, the elaboration of rules concerning the use of nuclear power sources in outer space, the definition and delimitation of outer space, and the principles on the use of geostationary orbit- remain on the agenda of the Legal SubCommittee, one of the two subordinate bodies. All of these questions have important bearing on the interests of every country. The most advanced question is establishing the principles of remote sensing; these discussions have entered a final stage and consensus may be reached in the near future, if a spirit of compromise and cooperation continues to prevail among the negotiating states.

In the field of technical cooperation in space affairs, COPUOS and its other subordinate body, the Scientific and Technical Sub-Committee, have also done much work and achieved considerable successes. The United Nations Space Application Programme has greatly contributed to the dissemination and exchange of space technology for economic and social development. A series of training seminars and workshops on applications of space technology has been held under its auspices for participants from developing countries. Through this programme, technical advice is available on request.

Viewed as a whole, the historic role of COPUOS is significant; however, there are deficiencies in its work and effectiveness. In order to maintain outer space for peaceful uses in the interests of all countries, particularly the developing countries, the Committee should be further strengthened to play a more productive and important role in expanding international cooperation.

Legal framework

It is useful here to provide a summary of the general legal regime upon which the peaceful uses of outer space have functioned. Its basic principles and rules are enshrined in the 1967 Outer Space Treaty - the main space law instrument of our times - and further developed in the four additional international treaties. All these documents were negotiated and concluded by COPUOS, and contain the following general provisions relating to the maintenance of outer space for peaceful uses.

The exploration and use of outer space shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all humankind.

Outer space shall be free for exploration and use by all states without discrimination, and is not subject to national appropriation by claim of sovereignty, by means of use or occupation or by any other means.

Activities in the exploration and use of outer space shall be carried out in accordance with international law, including the Charter of the United Nations, in the interests of maintaining international peace and security and promoting international cooperation and understanding.

Astronauts shall be rendered all possible assistance in the event of accident, distress or emergency. This provision was further elaborated by the 1968 Agreement on the Rescue of Astronauts and the Return of Objects Launched into Outer Space.

States shall bear international responsibility for national space activities, whether carried out by governmental or non-governmental entities. This provision was further developed as the 1972 Covention on International Liability for Damage Caused by Space Objects.

The launching state shall inform the Secretary-General of the United Nations of the required information concerning the space objects, and the state of registry shall retain jurisdiction and control over such objects and any personnel thereof. In support of this provision, the 1975 Convention on Registration of Objects Launched into Outer Space was elaborated.

The fifth legal instrument, the 1979 Agreement Governing the Activities of States on the Moon and other Celestial Bodies (the Moon Agreement), is largely an elaboration of the general provisions of the 1967 Outer Space Treaty in the specific context of the Moon and other celestial bodies. It contains a new and important principle, that the Moon and its natural resources are the "common heritage of mankind', and that states party to the agreement shall establish an international regime to govern the exploitation of the natural resources of the Moon as such exploitation is about to become feasible'.

These are the general principles and rules relevant to the peaceful uses of outer space. For instance, the principle of common benefit, though requiring further specification, constitutes a duty upon each member not to misuse outer space in a way which would lead to the detriment of the interests of humankind. So do the principle that international law (including the United Nations Charter) applies to space, and other principles. All of these contribute to the satisfactory functioning of peaceful activities in outer space.

Two-pronged approaches

To ensure outer space for peaceful uses, it is necessary not only to elaborate general principles as mentioned above, but also to make specific provisions directly involved with the protection of a peaceful environment in outer space which is the province of humankind.

With regard to the destructive possibilities in outer space, foremost among them is the growing danger of militarization. This has deeply concerned the international community, even more than other possible harmful developments such as contamination, pollution and space debris. The 1967 Outer Space Treaty took a two-pronged approach in dealing with these direct dangers.

First, foreseeing that outer space might become a battleground of the major space powers, the treaty lays down certain restrictions on military activities in outer space, thus providing some degree of arms control and disarmament. Paragraph I of Article IV stipulates: "states parties to the Treaty undertake not to place in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies or station such weapons in outer space in any other manner'. Paragraph II provides for general demilitarization of the Moon and other celestial bodies, and declares that they shall be used exclusively for peaceful purposes. The 1979 Moon Agreement makes further and far-reaching provisions for demilitarization of the Moon and other celestial bodies. It came into force in 1984, but has not been ratified by either of the two major space powers.

It is clear from the existing provisions that, although prohibitions are placed on nuclear weapons and weapons of mass destruction, there is no express prohibition on the introduction of other kinds of weapons in outer space. It is generally held that this is a lacuna of the Outer Space Treaty which should be further discussed in the United Nations and eventually be filled.

Second, in dealing with other potential dangers, Article IX of the Outer Space Treaty obliges its members (1) to conduct their space activities with due regard to the corresponding interests of all other states; (2) to avoid harmful contamination and adverse changes in the environment of the Earth resulting from the introduction of extraterrestrial matter; (3) to undertake international consultations if such activities would cause potential harmful interference with activities of other states.

Thus the Outer Space Treaty lays down principles of a general nature establishing as international obligation not to undertake activities which would adversely affect the space environment, while leaving concrete and detailed measures and provisions to be further elaborated in additional legal instruments.

Considerations and conclusion

The COPUOS, as the major United Nations organ dealing with space matters, has a key role to play in preserving outer space for peaceful uses. The following considerations could be raised with a view to increasing the contribution of COPUOS to the achievement of this lofty goal.

One: strengthening and expanding the role of COPUOS in accordance with its mandate. In a resolution in 1961, the United Nations General Viewpoint Assembly decided that COPUOS should provide a focal point for international cooperation in the peaceful exploration and use of outer space. Thus, it is vital not to bypass COPUOS, nor to weaken its function by entrusting what falls within its terms of reference to a new forum or other organs.

Two: reviewing the existing internationally accepted legal document by COPUOS and its Sub-Committees, with a view to supplementing or expanding the relevant principles to meet new developments. It has been pointed out that there are weaknesses and loopholes in the existing treaties. The best way to deal with these seems to be to retain the provisions covering related matters in the existing treaties as general principles, while elaborating supplementary rules by additional instruments. In this way, the original treaty could remain intact, with additional protocols being concluded consistent with the aim and principles of the main treaty.Three: reviewing the working method of COPUOS and its two Sub-Committees in order to find the best way to make them more effective. New relevant items, both technical and legal, could be placed on the agenda of COPUOS and the two Sub-Committees through consultation and discussion by the parties. This would help to keep COPUOS in accordance with its mandate as the only intergovernmental body exclusively concerned with all aspects of the peaceful uses of outer space. Four: involvement of COPUOS and its Legal Sub-Committees in the demilitarization of outer space, which is an essential condition for maintaining outer space for peaceful uses. COPUOS, while focusing its attention on peaceful uses, cannot but touch upon the other side of the question: the prevention of an arms race in outer space. Although the primary role of space arms control was entrusted to the Conference on Disarmament, COPUOS as the parent body of the Outer Space Treaty could also play a supportive role in the negotiations on space weapons. This would in turn add new impetus to international cooperation in the peaceful uses of outer space and progressive development of space law. In conclusion, the role of COPUOS should be strengthened in order to establish further the conditions essential for maintaining peaceful uses of outer space. In addition to general basic conditions, there are issues of control and elimination of destructive interferences: foremost among these is the growing danger of militarization of outer space. The issues of contamination, pollution and space debris have also to be dealt with. Only by properly solving these issues can the peaceful uses of outer space really be ensured.