

The Truth is Mostly Right Here: The Security Dilemma and the Earthly Logic of an Extraterrestrial Threat

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Introduction

Amid domestic political polarization in multiple countries as the result of the Covid-19 pandemic, economic insecurity, and geopolitical flux, few things now seem outlandish in current events. As if the zeitgeist of the Trump era were not disorienting enough, real discussions emerged in military and political circles that highlight the possible existence of unidentified aerial phenomena (UAPs), and extraterrestrial life. The US creation of Space Force as the first new military branch since 1947, revelations of government spending on projects exploring UAPs, and revealed encounters between American naval pilots and mysterious objects, shifted ideas about extraterrestrials from tabloid conspiracy theories to mainstream discourse.¹ Far from a purely American dynamic, British astronaut Helen Sherman added intrigue to the notion of

¹ Helene Cooper, Ralph Blumenthal, and Leslie Kean, "Glowing Auras and 'Black Money': The Pentagon's Mysterious UFO Program," *New York Times*, 16 December 2017, (<https://www.nytimes.com/2017/12/16/us/politics/pentagon-program-ufo-harry-reid.html>), accessed 22 December 2020. See also Natasha Turak, "Pentagon declassifies three UFO videos taken by Navy pilots", *CNBC*, 28 April 2020, (<https://www.cnn.com/2020/04/28/pentagon-declassifies-ufo-videos-taken-by-navy-pilots.html>), accessed 22 December 2020.

extraterrestrial life in January 2020 that “aliens exist,” while the former head of Israel’s space agency, Haim Eshed, declared in an interview that humanity had brokered an agreement with a “galactic federation” of aliens for scientific purposes.² Donald Trump in June 2020 noted that he knew “very interesting” things about the famous 1947 Roswell incident that sparked the modern interest in possible alien life but refused to elaborate about it publicly.³ This article is not about aliens; rather, this article approaches the implications of states developing military capability as if an extraterrestrial threat existed and the impact of such development upon the security dilemma.

This article argues that the idea alone of intelligent extraterrestrial alien threat severely affects the implications of the security dilemma in international relations, up until the point that such a threat is openly and fully confirmed. The perceived presence of a technologically advanced non-human threat with unknown intent and capability effectively removes any impediments to states seeking unlimited increases in military capacity while creating unique intelligence challenges. In a normal security dilemma, states gauge buildups of arms and military cooperation in relation to the perceived threats that other nations pose to their security. However, a state’s threat perceptions are based upon existing assumptions about human nature, the foreign policy behaviors of potentially hostile states, and knowledge of what military capabilities other states possess. In short, states do not increase military capabilities purely in a vacuum. The possibility of an extraterrestrial actor removes all of the usual assumptions at work in the normal security dilemma and raises the question of how the security dilemma

² Rob Picheta, “Aliens definitely exist and they could be living among us on Earth, says Britain’s first astronaut”, *CNN*, 6 January 2020. See also Michael Segalov, “Helen Sharman: ‘There’s no greater beauty than seeing Earth from up high,’” *The Guardian*, 5 January 2020, (<https://www.theguardian.com/lifeandstyle/2020/jan/05/astronaut-helen-sharman-this-much-i-know>), accessed 23 December 2020. See also Adela Suliman and Paul Goldman, “Former Israeli space security chief says extraterrestrials exist, and Trump knows about it,” *NBC News*, 8 December 2020, (<https://www.nbcnews.com/news/weird-news/former-israeli-space-security-chief-says-extraterrestrials-exist-trump-knows-n1250333>), accessed 23 December 2020. See also Nathan Jeffay, “Israeli space chief says aliens may well exist, but they haven’t met humans,” *Times of Israel*, 10 December 2020, (<https://www.timesofisrael.com/israeli-space-chief-says-aliens-may-well-exist-but-they-havent-met-humans/>), accessed 23 December 2020.

³ “Trump says he’s heard ‘very interesting’ things about Roswell, site of an alleged UFO event,” *NBC News*, 19 June 2020, (<https://www.nbcnews.com/politics/donald-trump/trump-says-he-s-heard-very-interesting-things-about-roswell-n1231521>), accessed 24 December 2020.

operates when all known quantities about a state's most existential threats are removed. This article argues that the possibility of an extraterrestrial threat justifies virtually unlimited buildup of arms while simultaneously affording states a plausible assurance to other states that arms buildup is not designed for use against them. This is a unique condition that warrants further theorizing if states begin acquiring arms as if such a threat existed. This article does not claim that extraterrestrials exist or have made contact; however, incidents such as that involving UAPs and the USS Nimitz in 2004 raise the possibility that they do, and that such advanced technological advancements warrant increased preparation on the part of great powers encountering them.⁴ From a policy standpoint, it would prove safer for states to assume that the potential for a hostile extraterrestrial encounter does exist. Discounting such a possibility could prove disastrous not only to states but to humanity as a species.

As great powers seek and acquire heretofore exotic weapons capabilities involving space, artificial intelligence, and other platforms that carry immense destructive capacity, an arming state has an incentive to construct a nebulous and open-ended threat to justify such development. In a 21st century world characterized by emerging multipolarity in the international system, and taboos against unilateral displays of force by great powers, the idea of an extraterrestrial threat offers a justification for states to pursue exotic technologies designed for greater lethality. First, this article covers the mainstreaming of extraterrestrials as an idea and its correlation with military advances over the past century. Next, the idea of an extraterrestrial alien threat will be examined in the context of how it affects the intelligence dynamics of the security dilemma. I argue that the concept of an extraterrestrial threat offsets the concerns of other states while justifying any given state's near-limitless buildup. Last, the policy implications of this dynamic are briefly explored as they pertain to major military powers competing with one another in space.

⁴ Pavithra George, "'Normalizing' UFOs-retired US Navy pilot recalls Tic Tac encounter," *Reuters*, 24 June 2021, (<https://www.reuters.com/lifestyle/science/normalizing-ufos-retired-us-navy-pilot-recalls-tic-tac-encounter-2021-06-25/>), accessed 10 January 2022.

The Mainstreaming of an Idea in an Era of Great Power Competition for Space

The concept of extraterrestrial life interacting with human beings is far from new and pre-dates the Cold War by centuries. Sightings of aerial objects, celestial phenomena, and intertwined stories of extraterrestrial beings, date to antiquity. Often, human beings interpreted such phenomena or purported visions of phenomena in supernatural terms. For example, multiple primitive cultures viewed the Northern Lights through a mythological lens. Conversely, the idea of extraterrestrial life as separate from the supernatural also dates to ancient times, such as in the work of Lucian of Samosata in 200 CE that depicted aliens on the moon bearing remarkable resemblances to life on earth.⁵ While the presence of extraterrestrial life in human consciousness is as old as civilization, the concept of an alien civilization constituting a potentially advanced national security threat is quite new and parallels advancements in human technology and warfare.

Modern military operations can scarcely be comprehended in the absence of airpower. Even the most remote locales serving as battlefields for small unit operations engaging in counterterrorism rely upon air support. The invention of modern aircraft in 1903 put humanity on a course to travel and fight at higher altitudes and at faster speeds than ever existed in centuries past. While seemingly mundane from today's historical vantage point, the fact that humans engage in activities in the air, under the sea, and in space warrants appreciation for the technological capacity of which our species is capable. It is also worth noting how unnatural such activities are in the context of the whole history of international relations. Multiple technologies of today are completely alien to military thinking of even the 19th century.

Increased human intimacy with new environments that were once the domain of speculation, such as the atmosphere through aeronautics, space, and beneath the oceans grew in the context of the security dilemma of great power competition. Politics today must assess and safeguard against potential threats from a variety of vantage points far beyond those of a surface attack by land and sea. In past ages, those were the only two domains that mattered. Conquering and safeguarding these new environments quickly

⁵ Caleb A. Scharf, "The First Alien: When did we start talking about life from elsewhere," *Scientific American*, 23 November 2019, <https://blogs.scientificamerican.com/life-unbounded/the-first-alien/>, accessed 8 April 2021.

became a great power imperative in the context of WWI, and have remained such to the present. Contemplation of the possibility of extraterrestrial life grew alongside this imperative. As the atmosphere and eventually space became less mysterious as the result of technological sophistication, those same technologies heightened the stakes for any state falling behind in obtaining and deploying them.

With more humans traveling and fighting in the air, and great powers continually increasing the technological capacity of airpower, it is not surprising that the idea of UAPs began crystallizing at the same time. In 1944, Allied pilots described being tracked by “glowing wingless cigar-like” phenomena while flying missions over Nazi Germany. Dubbed the “foo fighters” by Allied airmen, one theory posited by the pilots was that the unexplained objects were experimental German weapons systems.⁶ While the idea of Nazis in space provides the making of bad science fiction productions, the human fascination with outer space was already growing in the consciousness of great powers and key political figures of the era.

Largely due to the influence of Winston Churchill, Britain during the WWII era developed a sophisticated interest in advanced technologies. In 1939, perhaps inspired by the radio broadcast of *The War of the Worlds* the previous year, Winston Churchill penned an essay on the possibility of alien life.⁷ Recently discovered in 2017, Churchill’s unpublished essay draws upon the “Copernican Principle” that infers that other life should exist in the universe due to its size.⁸ The fact that the concept of extraterrestrials was present during Churchill’s wartime tenure as Britain’s prime minister is noteworthy when placed into the context with which he pushed for advances in British technology. Calling WWII, “the Wizard’s War,” Churchill hired the physicist Frederick Lindemann to help guide Britain’s scientific advancements.⁹ Churchill also frequently

⁶ Adam Janos, “Mysterious UFOs Seen by WWII Airman Still Unexplained,” *History*, 15 Aug. 15, 2018, (<https://www.history.com/news/wwii-ufos-allied-airmen-orange-lights-foo-fighters>), accessed 9 May 2021.

⁷ Mario Livio, “Winston Churchill’s essay on alien life found,” *Nature*, 15 February 2017, (<https://www.nature.com/news/winston-churchill-s-essay-on-alien-life-found-1.21467>), accessed 9 May 2021.

⁸ Paul Rincon, “Winston Churchill’s views on aliens revealed in lost essay,” *BBC News*, 15 February 2017, (<https://www.bbc.com/news/science-environment-38985425>), accessed 10 May 2021.

⁹ Justin D. Lyons, “Churchill on Science and Civilization,” *The New Atlantis*, (Summer 2010), 28 November 2010, pp. 75-84, 77. See also Mario Livio, “Winston Churchill’s essay on alien life found,” *Nature*, 15

met with Bernard Lovell during the war. As a radio astronomer, Lovell proved critical to British developments in radar during the war and was later involved with detecting Soviet space activity.¹⁰ In comparison to Britain's scientific and security-driven advances in technology, Nazi Germany blended scientific pursuit with mythology and its own racist national ethos.

Nazi Germany's rocket technologies and developments in physics emerged alongside a regime saturated by pseudoscientific ideas and ideology enamored with the occult. Among Nazi ideas of racial superiority was a concocted mythology linking a supposed Aryan race to outer space. One of the cores of Nazi metaphysics was "World Ice Theory," a creation myth fabricated by Hanns Hörbiger that attracted proto-Nazi racial ideologues such as Guido von List and Lanz von Liebenfels.¹¹ The "theory" that originated in a dream of Hörbiger's that viewed Earth's formation as the result of a process of interstellar collisions with ice, and the creation of humanity as the result of a meteor collision.¹² These ideas fused with Nazi conceptions of racial identity, racial conflict, and were widely promoted by Hitler and other figures among Germany's political elite.¹³ The British historian Nicholas Goodnick-Clarke notes that in Austria shortly after the war, the affinity for Nazi mythology among supporters of the Third Reich evolved into urban legends involving "ancient Nordic races," "Atlantis" and "miracle weapons" such as "flying saucers."¹⁴ Many of these theories and others like them persist due to the advent of the internet and social media. Other mythologies

February 2017, (<https://www.nature.com/news/winston-churchill-s-essay-on-alien-life-found-1.21467>), accessed 9 May 2021.

¹⁰ Ibid. See also "Sir Bernard Lovell claims Russians tried to kill him with radiation.", *The Telegraph*, 22 May 2009, (<https://www.telegraph.co.uk/news/science/space/5362829/Sir-Bernard-Lovell-claims-Russians-tried-to-kill-him-with-radiation.html>), accessed 9 May 2021.

¹¹ Eric Kurlander, "A Song of Ice and Fire: World Ice Theory and Supernatural Imagery of the Third Reich," *Lapham's Quarterly*, 26 July 2017, (<https://www.laphamsquarterly.org/roundtable/song-ice-and-fire>), accessed 9 May 2021.

¹² Ibid.

¹³ Ibid. See also Nicholas Goodnick-Clarke, *Black Sun: Aryan Cults, Esoteric Nazism, and the Politics of Identity* (New York: New York University Press, 2002).

¹⁴ Goodnick-Clarke, p. 128.

similar to World Ice Theory are further given credence by shows such as the History Channel's *Ancient Aliens* program and its veneer of legitimacy.¹⁵

Despite the Nazis' penchant for fabricated pseudoscience, the place of outer space in their national outlook is telling for two reasons. The first was that it connected the idea of the extraterrestrial to a sense of earthly political purpose. The second is that despite the unfounded ideas behind Nazi cosmology, the Germans nonetheless spearheaded advances in rocket technologies that proved devastating during the war and would be sought after by the United States and the Soviet Union. For the Cold War powers, and now China and other states, getting to space has moved from being a simple national aspiration to one of vital national security importance as they compete with one another. Coincidentally, the idea of UAPs and extraterrestrials in popular consciousness grew alongside the great power buildup towards the heavens.

The Cold War provided a confluence of dynamics that fostered the idea of extraterrestrials in mass consciousness. The space race created rapid advancements in technology as they relate to aeronautics and cosmonautics, both of which not only caused a retreat of the unknown for humanity but also raised new questions about what humans may encounter in these new domains. Once US President John F. Kennedy announced America's national interest in sending astronauts to the moon, a natural question arose as to whether some form of extraterrestrial may be encountered along the way. Second, technologies unfamiliar to the general public at the time were being used for advancements in flight and space travel. Last, the needed secrecy surrounding a state's advancements in certain technologies created an environment conducive to conjecture by the mass population. Together, these dynamics set the stage for cultural UAP mania and futuristic great power competition.

Many of the Cold War's first space scientists were originally from Nazi Germany and emerged from the same cultural milieu as World Ice Theory. Both the US and USSR absorbed Nazi scientists for their respective nuclear and missile programs. At the end of WWII, the US, the Soviets, and even the British and French rounded up remnants of Nazi Germany's weapons programs and scientists. The surrender of numerous

¹⁵ See Riley Black, "The Idiocy, Fabrications and Lies of Ancient Aliens," *Smithsonian Magazine*, 11 May 2012, (<https://www.smithsonianmag.com/science-nature/the-idiocy-fabrications-and-lies-of-ancient-aliens-86294030/>), accessed 10 January 2022.

rocket scientists led by Wernher von Braun in May 1945 ultimately culminated in American forces extracting 120 engineers from Germany's V-2 rocket program.¹⁶ The US Army Air Force and later, the US Air Force, obtained over 700 former Nazi scientists by 1952.¹⁷ For their part, the Soviet Union commandeered the entire German rocket operation at Thuringia and a total of over 3,500 scientists from the fields of rocket development and aviation.¹⁸

While the US and USSR created the space race through great power competition, the idea of humans living on other planets was already being contemplated by serious scientists from Germany and Russia. In 1953, the newly Americanized Wernher von Braun published an English language edition of his book, *The Mars Project*.¹⁹ Written with the idea of human colonization of Mars in mind, von Braun outlines compendia of formulas and designs of systems designed to facilitate travel to the red planet and projects to assist in making it habitable for human life. The Nazi scientist envisioned a "flotilla of space vessels" akin to the Spanish ships led by Columbus in his expedition to the Americas.²⁰ Notably, von Braun's fascination with interplanetary travel pre-dated his involvement in the US space program. In 1944, prior to the end of WWII, von Braun was arrested by the Gestapo and charged with "advocating the building of interplanetary spacecraft" instead of focusing on developing warfighting technology.²¹

On the Soviet side, serious theoretical work on space exploration dates to Czarist times and the work of Konstantin Eduardovich Tsiolkovskiy, who published multiple technical treatises on the topic, including his "Exploration of the Universe with Rocket-Propelled Vehicles" published in 1903.²² Tsiolkovskiy's ideas, which were ignored by the Czar but captured the interest of the Communists, included conceptualizations of space suits and human exploration of the cosmos.²³ Far from simply emerging in the

¹⁶ Michael J. Neufeld, "Overcast, Paperclip, Osoaviakhim: Looting and the Transfer of German Military Technology," in *The United States and Germany in the Era of the Cold War 1945-1990, A Handbook*. Vol. I: 1945-1968, Edited by Detlef Junker (Cambridge: University of Cambridge Press, 2004), pp. 198-199.

¹⁷ *Ibid.*, p. 199.

¹⁸ *Ibid.*, p. 199.

¹⁹ Wernher von Braun, *The Mars Project* (Urbana: University of Illinois Press, 1953).

²⁰ Von Braun, p. 2.

²¹ Thomas O. Paine, Foreword to *The Mars Project* (Urbana: University of Illinois Press, 1991), pp. vii-viii.

²² Asif A. Siddiqi, *Challenge to Apollo: the Soviet Union and the Space Race: 1945-1974* (Washington DC: NASA History Division, 2000), p. 1.

²³ *Ibid.*, pp. 1-2.

context of the space race, the idea of space travel and encounters with extraterrestrials were actually mainstreaming during the Cold War. Disconcertingly, the idea of human space travel morphed from the fantastical to the technical under the auspices of totalitarianism.

In the late 1940s, the idea of intelligent life traversing the stars escaped from technocratic military and scientific circles to the realm of mass popular culture. The Roswell incident of 1947, in which a mysterious object deemed a “flying disk” crashed near Roswell Army Air Field, set off what would become the phenomenon of “ufology” in American life.²⁴ The object that crashed was later revealed to be technology designed by Project Mogul for gathering intelligence while flying over the Soviet Union.²⁵ Coupled with reports of purported alien bodies being pulled from the wreckage, the Roswell incident provides a useful point of departure for both discussing the runaway presence of extraterrestrials in popular culture and the scramble for space by great powers. While great powers focused on jockeying for getting to the cosmos and militarizing it, mass culture grew preoccupied with who or what could come down from it.

Over the four decades from the 1950s through the 1990s, extraterrestrials became a facet of the American cultural psyche. Writers such as Arthur C. Clarke, Ray Bradbury, and Isaac Asimov brought the science fiction genre to new heights with books about space travel, advanced robots, and extraterrestrials. Notably, both Clarke and Asimov had backgrounds in heavy science. During WWII, Clarke worked in radar warning systems and in 1945 proposed the launch and use of satellites as communication relays.²⁶ During the Kennedy administration, it was Wernher von

²⁴ Mindy Weisberger, “Army officer’s secret journal could offer new clues about the UFO crash in Roswell in 1947,” *Live Science*, 12 December 2020, (<https://www.livescience.com/roswell-the-first-witness-history-channel.html>), accessed 12 May 2021. See also Toby Smith, *Little Gray Men: Roswell and the Rise of a Popular Culture* (Albuquerque: University of New Mexico Press, 2000).

²⁵ Report of Air Force Research Regarding the “Roswell Incident,” National Security Agency, (https://www.nsa.gov/Portals/70/documents/news-features/declassified-documents/ufo/report_af_roswell.pdf), accessed 26 June 2021, p. 17. See also Donovan Webster, “In 1947, A High-Altitude Balloon Crashed Landed in Roswell. The Aliens Never Left,” *Smithsonian Magazine*, 5 July 2017, (<https://www.smithsonianmag.com/smithsonian-institution/in-1947-high-altitude-balloon-crash-landed-roswell-aliens-never-left-180963917/>), accessed 26 June 2021.

²⁶ Biography, Arthur C. Clarke Foundation official website, (<https://www.clarkefoundation.org/arthur-c-clarke-biography/>), accessed 20 June 2021.

Braun who used Clarke's work to convince the White House of the viability of travel to the moon.²⁷ Asimov's background included a doctorate in chemistry, a subject he would later teach at Boston University.²⁸ As television and movies matured as media, the science fiction genre elevated extraterrestrials and stories involving them to the status of household names. Series such as *Star Trek*, *Star Wars*, and films such as *2001: A Space Odyssey* became facets of American culture.

While superpowers reached for the stars and popular culture speculated about non-human civilization, the world of fiction and national security overlapped as major powers began investigating reports of unidentified flying objects (UFOs) given by the public. After the Roswell incident, sightings of UFOs in the US skyrocketed along with the genre of conspiracy theories involving secret government programs and extraterrestrial life. Between 1947 and 1969, the US Air Force investigated and cataloged 12,618 UFO sightings around the US, of which 701 were deemed as unidentifiable.²⁹ Britain proved no less immune to military interest and investigation in UFOs. In the early 1950s, the British Ministry of Defense determined that UFOs warranted serious investigation after Royal Air Force pilots encountered objects while taking part in a NATO exercise.³⁰ While the British ended their official investigations into UFOs in 2009, roughly 5 percent of sightings since the 1950s remained "unidentified."³¹ Not to be outdone, France developed its own program to study UFOs through its own space agency. Paris founded its own space program in the 1960s, again as part of great power competition, and developed the "Study Group and Information on Non-Identified Aerospace Phenomenon," known by its French acronym GEIPAN.³² Within the sum of total sightings investigated by the French, over a quarter remain

²⁷ Saswato R. Das, "Final thoughts from Arthur C. Clarke," *The New York Times*, 20 March 2008, (<https://www.nytimes.com/2008/03/20/opinion/20iht-eddas.1.11290497.html>), accessed 20 June 2021.

²⁸ Isaac Asimov, *The Early Asimov; or, Eleven Years of Trying* (Garden City: Doubleday, 1972), pp. 560-564.

²⁹ Project BLUE BOOK-Unidentified Flying Objects, US National Archives, Military Records Search, (<https://www.archives.gov/research/military/air-force/ufos#bluebk>), accessed 20 June 2021.

³⁰ Nick Pope, "My time as a UFO investigator for the government," *BBC Future*, 22 March 2016, (<https://www.bbc.com/future/article/20160322-my-time-as-a-ufo-investigator-for-the-government>), accessed 20 June 2021.

³¹ Ibid.

³² Chris Bockman, "Why the French state has a team of UFO hunters," *BBC News*, 4 November 2014, (<https://www.bbc.com/news/magazine-29755919>), accessed 23 June 2021.

unexplained.³³ Far from being a fringe idea, major military powers have spent resources at least going through the motions of investigating UAPs, and did so alongside making their advances in military capacity in space.

Clearly, aliens and UAPs exist as an idea in the mindset of great powers as well as mass popular culture. For the security planning and military development of nation-states, it is irrelevant whether encounters such as those between the US Navy and UAPs actually involve extraterrestrials or simply involve encountering advanced technologies of human origin.³⁴ In political science, the perceived presence of something can induce actors to modify their behavior even if such presence is unverified. Suicide bombers commit attacks that lead to their own deaths in the expectation that paradise exists, even if the existence of such a paradise remains empirically unproven. Totalitarian regimes often seek to remake the world as they imagine it could be based upon abstract projections and constructs such as class, race, or religion. Perceptions matter and political affairs are replete with phenomena in which actors engage in behaviors based on what is possible rather than what is fully confirmed to exist. With this understanding in mind, the fact that states may act as if extraterrestrials could exist and may constitute a threat should not seem outlandish even in the absence of some open confirmation.

The combination of encounters with UAPs, and government expenditures on programs pertaining to them hold serious implications for the traditional security dilemma of states arming to deter other states. Encountering advanced technology of ostensibly unknown origin opens the possibility that states may have to prepare to fight an entity they cannot openly see or understand, but also that any human buildups in space and on Earth are actively being surveilled by that same entity. Adding to this complexity is that multiple great powers are experiencing the same phenomenon. Combined, this creates a two-layered security dilemma with no comforting equilibrium. UAPs and some of the advanced capabilities they exhibit are not in doubt; instead, all

³³ Centre National D'Etudes Spatiales, "GEIPAN UAP Investigation Unit Opens its Files," 26 March 2007, (<https://cnes.fr/en/web/CNES-en/5866-geipan-uap-investigation-unit-opens-its-files.php>), accessed 20 June 2021.

³⁴ Mosheh Gains and Phil Helsel, "Navy confirms videos did capture UFO sightings, but calls them by another name," *NBC News*, 19 September 2019, (<https://www.nbcnews.com/news/us-news/navy-confirms-videos-did-capture-ufo-sightings-it-calls-them-n1056201>), accessed 9 May 2021.

that is in doubt is their origin and intent. The mystique of a possible extraterrestrial origin could be used to obfuscate the very human origins of these advanced systems. Alternatively, these technologies could be from *somewhere else* entirely.

It is not coincidental that great powers and popular culture both began looking at space with suspicion and contemplating UAPs in the context of increasingly advanced human technologies. Rockets and drones, technologies that were once deemed futuristic and within the realm of science fiction were first developed by states as secret technologies in order to develop advanced weapons systems. As nations again compete with one another to dominate space as a security and economic environment, preparing for a possible encounter with extraterrestrials builds upon existing imperatives to maximize capabilities against human threats. Space-based threats remain, whether in the form of other states or in the form of a different civilization. In either scenario, states have the incentives to undertake a similar response in advancing space-based weapons capacity.

Humanity constitutes the only civilization that we know without a doubt is seeking to travel in space and weaponize it as a terrain. Because of this, it is not outlandish to think of a non-human civilization doing the same. The simple contemplation of an extraterrestrial threat compounds existing problems for states facing the security dilemma due to the limitations of intelligence analysis in addressing such an unknown threat. Not only does a contemplated extraterrestrial threat offer no precedent to analyze in order for states to prepare for potentially hostile contact, but such an absence actually forces states into analyses conducive to intelligence failure. The only way to prepare for such a threat is to extrapolate from known encounters with such advanced technology, whether or not it is from human origins, and extrapolate using the imagination and the pursuit of greater security capacity.

A Space Threat and Intelligence in the Security Dilemma

The concept of an extraterrestrial security threat alters the security dilemma by lifting existing constraints on what constitutes a threat for a state. Under the security dilemma's classic conditions, the efforts of one state to increase its security create insecurity among those other states around it. In turn, those other states offset the gains

of the first by developing their own military capacities. The space race of the Cold War and subsequent great power competition for space between the US and China undoubtedly derive from such dynamics. However, unlike during the Cold War, today's scramble for space involves newer technologies, a multipolar international system, and a nebulous specter that *something* could be *out there*.

The central problem for security in international relations theory is the anarchic nature of the international system. The international system lacks any equivalent to a police force that can be called by one country when attacked by another. Under normal conditions, even without the idea of a potential extraterrestrial threat, states must be able to accurately assess the capabilities and intentions of other states in order to detect and prepare to react to potential attacks. Due to the inherent uncertainty and lack of trust incumbent for states in the condition of anarchy, states employ intelligence to mitigate the worst of the security dilemma. However, once the specter of a potential threat is introduced that lays beyond the limit of human comprehension, the accuracy of intelligence analysis is curtailed and the uncertainty among all states increases as a result. At present, major powers are not only arming in space in traditional great power competition, but they are openly contemplating the possibility of encountering threats beyond what is openly known from great power competitors.

In December 2019, the Trump administration's signing of the 2020 National Defense Authorization Act created the newest branch of the American military when it founded the US Space Force (USSF). Despite its initial outlandishness in the context of a controversial presidential administration and a hyper-polarized political landscape, the creation of the USSF under the auspices of the Air Force founded the 6th branch of the US military. US Space Command (SPACECOM) comprises its own geographic combatant command, with a designated area of operation that begins in the thermosphere at 100 kilometers above Earth and extends into outer space.³⁵ Shortly after the USSF's founding, the Pentagon stated that American interests in space faced

³⁵ David Vergun, "Spacecom Aims to Ensure Space Domain is Protected, General Says," Defense News, US Department of Defense, 3 May 2021, (<https://www.defense.gov/Explore/News/Article/Article/2593617/spacecom-aims-to-ensure-space-domain-is-protected-general-says/#:~:text=Spacecom%20is%20also%20a%20geographic,above%20the%20Earth%20into%20space.&text=A%20guardian%20with%20the%2051st.%2C%20April%2027%2C%202021.>), accessed 26 June 2021.

threats from Chinese and Russian militarization of the space domain and that Space Command's domain stretched "into infinity" beyond 100 kilometers above the surface.³⁶ For their part, China and Russia markedly increased their space capabilities since 2000.³⁷ Should any extraterrestrial civilization exist, it already sits within the USSF's stated area of operation.

While the US focused on non-state threats in the form of terrorism after 2001, both Russia and China continued to make advances in space for security purposes. Contemporary Russian and Chinese ambitions for space stretch beyond those of the American Strategic Defense Initiative (SDI) program of the late Cold War. In early 2021, the China National Space Administration and Roscosmos, the two countries' space respective space programs, outlined a joint plan for building a moon base designed for "long-term autonomous operation."³⁸ The Sino-Russian moon base, dubbed the International Lunar Research Station, is projected to be completed and operational by 2036.³⁹ In line with great power competition taken to new heights, the US-led Artemis program includes plans for establishing its own lunar base before launching expeditions to Mars.⁴⁰ With the distance between Earth and Mars standing at 140 million miles, the entirety of US activity there would fall the security auspices of the USSF and its *infinite* area of operation.

³⁶ "Commander Lists 5 Tasks to Ensuring Continued Space Superiority," *Defense News*, US Department of Defense, 26 January, 2021, (<https://www.defense.gov/Explore/News/Article/Article/2483340/commander-lists-5-tasks-to-ensuring-continued-space-superiority/>), accessed 26 June 2021.

³⁷ See "Military and Security Developments Involving the People's Republic of China: 2020," Office of the Secretary of Defense: Annual Report to Congress, 2020, (<https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF>), accessed 22 June 2021. See also Beyza Unal and Mathieu Boulegue, "Russia's Behavior Risks Weaponizing Outer Space," 27 July 2020, Chatham House, (<https://www.chathamhouse.org/2020/07/russias-behaviour-risks-weaponizing-outer-space>), accessed 22 June 2021.

³⁸ Mike Wall, "Russia and China just agreed to build a research station on the moon together," *Space.com*, 21 March 2021, (<https://www.space.com/russia-china-moon-research-station-agreement>), accessed 26 June 2021.

³⁹ Tereza Pultarova, "Russia, China reveal moon base roadmap but no plans for astronaut trips yet," *Space.com*, 14 June 2021, (<https://www.space.com/china-russia-international-lunar-research-station>), accessed 26 June 2021.

⁴⁰ See "NASA's Lunar Exploration Program Overview," National Aeronautics and Space Administration, September 2020, (https://www.nasa.gov/sites/default/files/atoms/files/artemis_plan-20200921.pdf), accessed 20 June 2021.

Despite the areas of cooperation between great powers in space, the security-oriented cooperation between them cannot be ignored. Similar to the air and sea, the space domain is conducive to the development of multiple dual-use technologies with potential for weaponization. Many of the technologies still used in today's space programs are also the basis for ballistic missiles and have their origins in the V-2 rockets used for bombing in WWII. Yet, the integration of space technologies with missile systems seem quaint when compared with the electromagnetic weapons and artificial intelligence capabilities being developed by major powers.⁴¹ Not limited to Earth, great powers are focused on space and the technologies needed to effectively weaponize it.

Geopolitically, the international system recently reached a state of multipolarity not seen since the early 20th century. Growing tensions between the United States and China over Taiwan and hegemony certainly form the main locus of current great power rivalry. However, such a focus on this purported bipolarity in the international system would discount Russia's new activism in Europe and the Middle East, tensions between a rising India and China in the Himalayas, and European doubts over ongoing reliance upon the US for continental security. The sole focus on US-China tensions misses dangerous competition and the possibility for major war beginning elsewhere in the world.

In terms of great power competition in space, purely terrestrial precedent and international relations theory both indicate that multipolarity in the international system not only increases uncertainty in the balance of power, but also increases the likelihood of potential war. European exploration that began in the 16th century coincided with colonization the emergence of a multipolar international system that led to two world wars. The exploration and colonization of space led by great powers of the 21st century bear an eerie historical resemblance to past eras. An anarchic

⁴¹ Jim Garamone, "Esper: Air Force, Space Force Leading Charge to New Technologies," *Defense News*, Department of Defense, 16 September 2020, (<https://www.defense.gov/Explore/News/Article/Article/2349408/esper-air-force-space-force-leading-charge-to-new-technologies/>), accessed 26 June 2021. See also Vincent Pry, "The Russian Federation's Military Doctrine, Plans, and Capabilities for Electromagnetic Pulse (EMP) Attack," EMP Task Force on National Homeland Security, January 2021, (<https://apps.dtic.mil/sti/pdfs/AD1124730.pdf>), accessed 23 June 2021. See also Richard Stone, "'National pride is at stake.' Russia, China, United States race to build hypersonic weapons," *Science*, 8 January 2020, (<https://www.sciencemag.org/news/2020/01/national-pride-stake-russia-china-united-states-race-build-hypersonic-weapons>), accessed 23 June 2021.

international system extending to the stars, the presence of advanced weapons in space, and great powers increasingly uncertain about their security fits John Mearsheimer's assumptions of offensive realism.⁴² As noted in the first section, the ideas behind space exploration began to mature in Nazi Germany and Soviet Russia. Both states proved expansionist and fit the model of offensive realism.

In order to understand how the idea of a potential extraterrestrial threat affects the security considerations of great powers, the limitations of intelligence analysis must be understood as they pertain to such a threat. As stated in the first section, the idea of an extraterrestrial threat already exists in the geopolitical realm. Understanding the limits and uses of the idea of an extraterrestrial threat in the realm of intelligence offers insight into how the idea impacts uncertainty and exacerbates the security dilemma.

In June 2021, the US Office of the Director of National Intelligence (ODNI) released a preliminary, yet inconclusive report on the threats posed by UAPs to American national security.⁴³ The report discusses encounters and sightings between US military personnel from November 2004 to March 2021, and notes that the UAPs demonstrated "advanced technology" or "breakthrough technologies" based upon their behaviors in flight and lack of observable means of propulsion.⁴⁴ Of the five categories of UAP explanations listed in the report, two consist of benign explanations such as "natural phenomena" or "airborne clutter."⁴⁵ The other three categories include potential "classified programs by US entities," "foreign adversary systems" with Russia and China explicitly mentioned or the tantalizingly mysterious "other" category.⁴⁶

From an intelligence standpoint, the final three explanations are telling. If the US, or any great power, possesses an advanced technology that can elude solid explanation even from its own forces and weapons systems, including the possibility of an extraterrestrial presence offers a profound deniability on the part of the great power

⁴² See John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: WW Norton and Company Inc., 2001).

⁴³ Preliminary Assessment: Unidentified Aerial Phenomena, Office of the Director of National Intelligence, 25 June 2021, (<https://www.dni.gov/files/ODNI/documents/assessments/Preliminary-Assessment-UAP-20210625.pdf>), accessed 29 June 2021.

⁴⁴ *Ibid.*, p. 5.

⁴⁵ *Ibid.*, p. 5.

⁴⁶ *Ibid.*, pp. 5-6.

developing it. Second, the specter of a mysterious advanced threat that may be another state, or something else, justifies a state's pursuit of greater capabilities in order to safeguard against it. In either scenario, uncertainty is added to questions of technological advancement on the part of great-power competitors.

The ODNI report noted that "some UAP observations could be attributable to developments and classified programs by US entities," though such an explanation could not be confirmed.⁴⁷ When paired with the mysterious *other* category of sightings, the report raises the possibility that the idea of an extraterrestrial threat is being used as part of a misdirection effort to disguise the testing of very human technology. During the Cold War, the Soviet Union utilized widespread means of deception to mislead the West over its capabilities and activities. This Soviet doctrine, called *maskirovka*, was widely employed to mask strategic weakness, hide strengths, and obscure intentions from other powers.⁴⁸ While the Soviets utilized misdirection and deception as a staple of policy, all states seek to obfuscate the development of highly weaponizable technology. Because vehicles that can outmaneuver the fighter jets without any "discernable means of propulsion" constitute a weapons system with strategic implications, any state developing them would have an interest in using a false flag to deflect any potential reaction. As technologies continue to advance, not only does the need for state deception remain, but attributing the new technology being tested to an unacknowledged "other" allows for deception and denial at a strategic level throughout the international system.

Raising the possibility of an extraterrestrial threat as a misdirection and explanation for encounters with hyper-advanced technology offers several benefits in the context of great power competition for space. On the tactical level, holding another plausible explanation for encounters with advanced technology offers states means of deception and denial over capabilities being developed. At the strategic level within the international system, states ostensibly arming and preparing for an extraterrestrial threat allows for those states to increase their own security at the expense of other states

⁴⁷ Preliminary Assessment: Unidentified Aerial Phenomena, Office of the Director of National Intelligence, 25 June 2021, (<https://www.dni.gov/files/ODNI/documents/assessments/Preliminary-Assessment-UAP-20210625.pdf>), accessed 29 June 2021, p. 5.

⁴⁸ John A. Gentry and Joseph S. Gordon, *Strategic Warning Intelligence* (Washington DC: Georgetown University Press, 2019), p. 110.

while offering plausible deniability that such capabilities could be directed at them. The documented fears of extraterrestrials by the policymakers of major powers indicate the possibility of such a dynamic.

While extraterrestrial explanations for encounters with high technology and the idea of an alien attack may have elicited ridicule in the past, the idea of an extraterrestrial threat has precedent and standing in making states and policymakers uneasy about the possibility. In 2010, the UK Ministry of Defense declassified documents from WWII that describe an encounter between a British bomber and an object that “hovered noiselessly” before suddenly disappearing.⁴⁹ According to a letter written by one supposed witness, Winston Churchill ordered the encounter classified in order to avoid “mass panic amongst the general population.”⁵⁰ If extraterrestrials were not mentioned by Churchill, contemporary policymakers in the US and China are more explicit with their fears. John Podesta, who served as Chief of Staff during the Bill Clinton administration and later served in the Obama administration, had concerns over the possibility of an extraterrestrial threat.⁵¹ The Advanced Aerospace Threat Identification Program (AATIP), the US program tasked with tracking encounters with UAPs, started in 2007 with a funding push by ranking Senate Democrat Harry Reid.⁵² Some of AATIP’s funds were devoted to an aerospace contractor working on vehicles for human space exploration.⁵³ In reporting on the program, *Washington Post* noted that Robert Bigelow, the owner of the firm receiving much of AATIP’s earmark funding, is also a believer in extraterrestrials.⁵⁴

⁴⁹ Ki Mae Heussner, “Did Winston Churchill Order a UFO Cover-Up?”, *ABC News*, 5 August 2010, (<https://abcnews.go.com/Technology/churchill-ufo-winston-churchill-order-ufo-cover-avoid/story?id=11333892>), accessed 29 June 2021.

⁵⁰ Ibid. See also Cahal Milmo, “Did Churchill and Eisenhower cover up UFO encounter?” *The Independent*, 23 October 2011, (<https://www.independent.co.uk/news/science/did-churchill-and-eisenhower-cover-ufo-encounter-2043641.html>), accessed 29 June 2021.

⁵¹ Philip Bump, “The long, strange history of John Podesta’s space alien obsession,” *The Washington Post*, 8 April 2016, (<https://www.washingtonpost.com/news/the-fix/wp/2016/04/08/the-long-strange-history-of-john-podestas-space-alien-obsession/>), accessed 23 June 2021.

⁵² Helene Cooper, Ralph Blumenthal, and Leslie Kean, “Glowing Auras and ‘Black Money’: The Pentagon’s Mysterious UFO Program”, *The Washington Post*, 16 December 2017, (<https://www.nytimes.com/2017/12/16/us/politics/pentagon-program-ufo-harry-reid.html>), accessed 23 June 2021.

⁵³ Ibid.

⁵⁴ Ibid.

The idea of an extraterrestrial threat similarly influences Chinese policy towards space and defense. Not only that, elements of offensive realism animate China's orientation towards the problem. In 2017, China completed the world's largest radio dish, that is capable both of detecting satellites used for intelligence operations, and for listening for potential broadcasts from an extraterrestrial civilization.⁵⁵ For program and others, Beijing's space agency relies on Liu Cixin, one of China's top science fiction authors to consult on issues of potential first contact between Earth and another civilization.⁵⁶ Liu's work, which includes his trilogy, *The Three Body Problem*, integrates China's national narrative with humanity's encounter with another advanced species.⁵⁷ The trilogy's second book outlines a vision in which the universe is populated with civilizations bent on expansion and the elimination of competitors.⁵⁸ Not only does Liu fear humanity's contact with extraterrestrials, his inclusion in elite Chinese policy circles is reminiscent of von Braun's use of Arthur C. Clarke's work to influence America's space program decades earlier.⁵⁹ Notably, Barak Obama read Liu's work while president, and stated that his books offered a "cosmic perspective."⁶⁰ Whether human beings have encountered an extraterrestrial threat or not stands beside the point. The idea of an extraterrestrial threat is both present and at least somewhat influential in the thinking of modern great powers. Not coincidentally, this idea of an extraterrestrial threat coincides with renewed interest in space colonization among Earth's strongest states.

The idea in Liu's work and in the writing of other science fiction writers, that power-seeking civilizations populate the universe and will expand accordingly is not a pure product of imagination. The expansion of great powers throughout human

⁵⁵ Ross Anderson, "What Happens if China Makes First Contact?" *The Atlantic*, December 2017, (<https://www.theatlantic.com/magazine/archive/2017/12/what-happens-if-china-makes-first-contact/544131/>), accessed 29 June 2021.

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Yvaine Ye, "Exclusive: Chinese sci-fi genius Cixin Liu on humanity's deadly future," *The New Scientist*, 5 September 2018, (<https://www.newscientist.com/article/mg23931940-500-exclusive-chinese-sci-fi-genius-cixin-liu-on-humanitys-deadly-future/>), accessed 29 June 2021.

⁶⁰ Ross Anderson, "What Happens if China Makes First Contact?" *The Atlantic*, December 2017, (<https://www.theatlantic.com/magazine/archive/2017/12/what-happens-if-china-makes-first-contact/544131/>), accessed 29 June 2021.

history on earth came at the expense of smaller polities that could not adequately compete. European states that began consolidating in the early-modern era eliminated rival forms of governance in the guise of city-states and tribal groupings. Western colonization of the Americas began with phantasmagoric encounters between technologically advanced conquistadors and indigenous groups. Many of those indigenous groups are now extinct. Westward expansion in the United States produced a similar result. The Soviet Union's russification programs eliminated ethnic identities and autonomy across northern Eurasia, while Nazi attempts at expansion in Europe coincided with industrialized ethnic cleansing.⁶¹ Chinese policies in Tibet and elsewhere in the country's far-west resemble similar dynamics of modern expansionism and suppression of minority identity and dissent.⁶² All of these great powers mentioned: the United States, Germany, Russia and the Soviets, and the People's Republic of China, either contemplated national expansion into space, or are actively engaging to do so.

If human beings have acted so inhumanly towards one another on Earth, there is no reason to believe another civilization will harbor some greater form of enlightenment and amity in its actions towards us. Any formal theory about benevolent civilizations beyond Earth ignores the empirical record of human nature and organized political violence in history. Humanity offers only one observation of a species we know for certain is exploring space and attempting to weaponize it. The question then remains as to whether or not the fear of an extraterrestrial threat is credible, or if it is simply a psychological projection. The introduction of an extraterrestrial threat as an idea combines known human precedent of geopolitical conflict with the human imagination. From the vantage point of intelligence analysis, such a combination is conducive to intelligence failure and war.

Liu's idea of a cosmos filled with hostile civilizations is reminiscent of the theory of offensive realism in international relations. In his *Tragedy of Great Power Politics*, John Mearsheimer stipulates in his "bedrock assumptions" of offensive realism that states

⁶¹ See Brian Silver, "Social mobilization and the Russification of Soviet nationalities," *The American Political Science Review* 68, No. 1 (1974): pp. 45-66. See also Theodore R. Weeks, "Russification/Sovietization," *European History Online, EGO*, ed. Stefan Troebst (Mainz: Institute of European History (2010): pp. 6-10.

⁶² See Kunal Mukherjee, "The Uyghur Question in Contemporary China," *Strategic Analysis* 34, No. 3 (2010): pp. 420-435.

face uncertainty over the actions of other states, and that all states ultimately seek to maintain their own survival in a system without a central arbiter.⁶³ Mearsheimer notes that the ideal of every state is to achieve hegemony in order to ensure survival and that states will make a “special effort to maximize their share of world power.”⁶⁴ Once a state, or civilization, achieves the technological capacity to traverse space at any considerable distance and weaponize space as a domain, the rest of Earth remains incredibly vulnerable to attack. Indeed, using electromagnetic pulse weapons (EMPs), an aspiring hegemon could wipe out multiple competitors with a single space-based operation. Once planetary hegemony is achieved, the logical extension of terrestrial hegemony is expansion into space. Conceptually, the thermosphere is where Mearsheimer’s view of the international system merges with Liu’s view of the cosmos. As the United States, Russia, and China look to the moon and Mars, that barrier has already been crossed.

States gather intelligence in order to accurately assess the capabilities and intentions of other powers. However, strategic warning intelligence can be prone to failure due to faulty analytical assumptions. One pitfall of intelligence analysis consists of “*mirroring*,” or when states expect other states to act they would in a similar situation.⁶⁵ At its core, mirroring is a microcosm of one actor projecting its own outlook and worldview upon another in order to understand its decisions. For any state undertaking analyzing strategic intelligence, understanding the worldview of other actors constitutes a prerequisite to analyzing their rationality. This is problematic for using traditional intelligence analysis to assess questions about whether an extraterrestrial presence exists, and what intentions any such life may have regarding Earth. The unknowns are simply too great to avoid resorting to the imagination to fill in the blanks.

In normal foreign policy, intelligence analysis can fill in gaps of information due to area knowledge, cultural and linguistic knowledge, economics, and other specialties to reduce uncertainty. Foreign diplomats involved in the Middle East conflict may have difficulty grasping Israeli or Palestinian commitment to control of Jerusalem,

⁶³ Mearsheimer, p. 31.

⁶⁴ *Ibid.*, p. 34.

⁶⁵ Gentry and Gordon, p. 176.

particularly due to the location's absence of natural resources or strategic value. Yet, understanding the historical and religious ties of both groups to the city is needed in order to comprehend the rational choices of the actors involved. In his work on Russian near-launches of nuclear weapons near the end of the Cold War and after, Peter Vincent Pry aptly describes multiple instances in which a paranoid Moscow came close to unleashing a nuclear holocaust on the West.⁶⁶ Rather than ease bilateral tensions, Russia's vulnerability after the Cold War paradoxically increased both its fears and readiness to use nuclear weapons.⁶⁷ In this case, Russia's unease and readiness to launch differed significantly from premature American anticipations of globalization and democracy after 1991. Similarly, understanding China's pursuit of great power status must be placed into the context of its own national outlook and the *Century of Humiliation*. From the Opium Wars of the early 19th century through 1949, internal upheaval, European encroachment, and Japanese invasion nearly ended China as an autonomous polity. For China, pursuing hegemony is the pursuit of safety. When the Century of Humiliation is understood as animating China's ambitions, American dismay over Beijing's attempts to reorder the international system can quickly be viewed as the mistaken US projection of its own rationality onto China. For assessing a potential extraterrestrial threat, no such contextual information is readily available.

The only two areas of background knowledge beneficial to understanding the security considerations of an extraterrestrial threat are the known scientific logistical challenges facing long-distance space travel and the behavior of humanity as the only known species to seriously engage in activities in space. Regarding long-distance space travel, the logistics are profoundly difficult. For perspective, the possibility of cannibalism by humans colonizing of Mars arose in recent discussions about settling the red planet due to the distance from Earth should other food sources fail.⁶⁸ Aside from diet, the human energy technologies for long-distance space travel are still largely limited to chemical rockets. Fusion and antimatter propulsion technologies are already

⁶⁶ See Peter Vincent Pry, *War Scare: Russia and America on the Nuclear Brink* (Westport: Praeger, 1999).

⁶⁷ Ibid, p. xiii.

⁶⁸ Elmira Tantarova, "Space colonists could turn into cannibals: Experts warn humans settling on far away planets could end up eating each other if farming and crops failed," *Daily Mail*, 1 January 2022, (<https://www.dailymail.co.uk/news/article-10360617/Experts-warn-humans-settling-far-away-planets-end-eating-other.html>), accessed 10 January 2022.

under development, though a number of decades away from potential use.⁶⁹ None of these technologies address the biological problems posed by the travel time needed to perform such exploration, and the differences in time and aging between space travelers and those who remain on Earth. The Hollywood idea of an extraterrestrial armada traveling the stars to invade Earth is logistically difficult; however, scientists on Earth have already begun work to overcome these challenges.

While the logistics of space travel may assuage some of the fears of a potential extraterrestrial threat to Earth, few have accounted for the more arcane possibility of extra-dimensional travel as a means of circumventing distance. Indeed, recently declassified documents over the last several years indicate that the US Defense Intelligence Agency explores the possibilities of wormhole travel, and extra dimensions. Disconcertingly, these projects also fell under the AATIP project on UAPs.⁷⁰

Despite the multiple hurdles involved, astronomers and scientists have worked for decades for the possibility of encountering an extraterrestrial civilization, and overcoming the logistical problems involved. Bernard Lovell, Churchill's wartime radio astronomer and the scientist tasked with monitoring the Soviets in space, also worked on research to calculate the likelihood of intelligent life in nearby star systems.⁷¹ Lovell concluded that even if a "50000 % margin of error" is included, "about 100 million" stars have planets orbiting them that can support life.⁷² In the mid-1960s, astronomers and cryptographers had already begun work on developing a mathematical language to

⁶⁹ Mike Wall, "Antimatter and Fusion Drives Could Power Future Spaceships," *Space*, 11 September 2012, (<https://www.space.com/17537-antimatter-fusion-engines-future-spaceships.html>), accessed 10 January 2022.

⁷⁰ Sarah Emerson, "The Government's Secret UFO Program Funded Research on Wormholes and Extra Dimensions," *Vice News*, 17 January 2019, (<https://www.vice.com/en/article/3kg8v5/the-governments-secret-ufo-program-funded-research-on-wormholes-and-extra-dimensions>), accessed 9 January 2022. See also, Chris Ciaccia, "Secret Pentagon projects reveal gov't looked into UFOs, wormholes and other bizarre anomalies," *Fox News*, 23 January 2019, (<https://www.foxnews.com/science/secret-pentagon-projects-reveal-govt-looked-into-ufos-wormholes-and-other-bizarre-anomalies>), accessed 9 January 2022. For a list of the projects, see Defense Intelligence Agency FOIA Request Response, 16 January 2019, (<https://irp.fas.org/dia/aatip-list.pdf>), accessed 10 January 2022.

⁷¹ Lambros D. Callimahos, "Communication with Extraterrestrial Intelligence," Panel Discussion, Conference on Military Electronics, Washington DC, 23 September 1965, p. 107, (<https://www.nsa.gov/portals/75/documents/news-features/declassified-documents/tech-journals/communications-extraterrestrial-intelligence.pdf>), accessed 10 January 2022.

⁷² *Ibid.*, p. 107.

communicate the basics of Earth's inhabitants and the planet's chemical components to potential galactic neighbors.⁷³

These logistical and scientific issues are important to intelligence on the possibility of an extraterrestrial threat for the simple reason that a knowledge of an actor's capabilities and intent matters in order to accurately interpret behavior. Capabilities of the observed UAPs are not in doubt, nor are the scientific challenges conceptually in doubt even if they cannot yet be practically overcome. Understanding the intent of a potential extraterrestrial actor remains impossible due to the lack of cultural and historical context already mentioned. In the absence of such contextual information, mirroring is a necessity.

Once the idea of an extraterrestrial threat is introduced to security considerations, analysis is immediately confined to mirroring alone. Unlike earthly foreign adversaries, there are no foreign languages to learn, no foreign histories to study, and nowhere to travel to accumulate the requisite knowledge to avoid mirroring. Unlike Pry's work on Russian nuclear paranoia, there is simply no true data on a potential extraterrestrial threat, its capabilities, or its intentions. Indeed, the *unidentified* aspect of UAPs does not even indicate aliens. However, *unidentified* as a qualifier for UAPs as a term immediately conjures the possibility of a threat posed by little green men. This occurs because the idea of an extraterrestrial threat is only limited by humanity's own imagination. For precedent in understanding a space threat, human beings comprise the only known example of an intelligent civilization seeking to weaponize and colonize the stars. Developments such as the USSF, the Sino-Russian plans for a moon base, and the Artemis program's aspirations for Mars offer proof that at least one civilization with known warlike tendencies is *out there*. Left with only human civilization as a data point, all intelligence pertaining to a potential extraterrestrial threat is nothing but mirroring and projection. This projection provides a recipe for intelligence failure and potential war.

At the level of the international system and its extension into space, an unstable multipolarity already exists. Great powers that already compete on Earth have stated intentions to undertake interplanetary travel. With multipolarity in the international

⁷³ See Callimahos, 1965.

system already inherently unstable and prone to miscalculation and war, the introduction of the idea of an extraterrestrial threat exacerbates an already fragile balance. As the presence of major powers and those accompanying them extend farther beyond Earth, the likelihood of encountering intelligent life in space increases.

Because of this dynamic, humanity has little choice but to prepare for the possibility of making contact and that such a contact could prove hostile. If Liu's fears prove correct, despite such fears deriving from imaginative projection, humanity would do well to prepare to win a skirmish in space with another civilization. Avoiding such preparation could prove negligent and disastrous for humanity as a whole, and would easily comprise the last and worst intelligence failure in human history. Such a potential threat warrants greater weapons development by the countries exploring space, despite its exacerbating the existing earthly security dilemma. For critics who argue that human fears of another civilization are biasedly shaped by humankind's own violent past, it must be noted that the idea of a peaceful extraterrestrial encounter similarly derives from projection. With only humanity's own past and imagination as the only guide, advanced states have little choice but to continue competing with one another and prepare for threats that remain unknown.

Introducing the idea of an extraterrestrial threat locks security considerations into two cases of mirroring. In one scenario, humanity at some point encounters a benign and friendly civilization with amicable intent. In the other, humanity encounters a hostile civilization akin to those feared by Liu. In both cases, intelligence analysis of sightings and the discovery of radio frequencies from space are limited to little more than speculation and projection. Facing potential human extinction in the event of the second scenario, the only safe response is the one recommended by offensive realism; namely, to maximize security capabilities in space as a domain. Indeed, Earth's current major powers are already working on such a buildup and are currently doing so to defend against each other. Beyond this more familiar security dilemma, the specter of a potential extraterrestrial threat cannot be ignored, particularly as human technologies advance further and our species presence extends beyond Earth. For meeting both the known threat of other great powers in space and the potential unknown threat from above, the policy prescription is the same. This prescription is to

build capacity with the unknown threat in mind, and that human buildup in space may be observable to other actors beyond traditional great powers.

Conclusion and Implications

In conclusion, this paper introduces the idea of an extraterrestrial threat in the context of power politics and theorizes how such an idea affects the security dilemma. First, this article traces the origins of the idea of such a threat beginning with modern great power competition in the early 20th century and in the context of rapid technological advances. Second, this article examines how the idea of an extraterrestrial threat exacerbates the existing security dilemma by introducing greater uncertainty into the strategic calculations of great powers. This article examined the limitations of understanding such a threat imposed by analytical problems within intelligence analysis and the problem of rationality projection. Due to the introduction of greater uncertainty into the security dilemma as the result of the idea of an extraterrestrial threat, this article argues that states engaging in space competition have little choice but to prepare for the possibility that such an idea could become reality.