

University of Nevada Reno

**A Path to the Stars Vs the Space Frontier
National Space Mythology in Soviet and American Newspapers, 1957-1969**

A thesis submitted in partial fulfillment of the
requirements for the degree of Master of Arts
in History

by

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Abstract

This project examines the role of national space mythology in Soviet and US newspaper discourse between 1957 and 1969. Expressions of national mythology in both space programs anchored people's lives in traditional mythological themes that had the potential to bring meaning to their experience of the space age. The role of newspaper media in this process should not be underestimated because newspapers were a vital conduit of public discourse, enabling the distribution and consumption of national mythologies. This thesis suggests that during the first decade of the space race, the Soviet press dispersed a purpose-driven and cohesive message about their space program that reinforced its national mythology. In comparison, the American press distributed a less cohesive, but still effective version of America's national mythology. In Soviet space news, the dominant mythological theme was that of interplanetary travel, while in the U.S. it was a mythology of the frontier. Identifying a society's connection to the role of space mythology may help us understand how it promotes a renewed national identity; acts as a factor of social cohesion (or dissonance), and as a vehicle to work out their reactions to the social burdens of the space race.

To my darling husband, you were right. Thank you for everything.

and

Thanks, Kev! I wouldn't have made it without you, my sweet and generous brother.

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Chapter 1: The News and National Mythology

Introduction: The News

When we learn about contemporary events second-hand, we call that ‘the news.’ We see, read and hear the news about important events constantly in the twenty-first century via television and internet transmission. In fact, there is much consternation in our culture about the impact that social media platforms have on our consumption of the news. The methods of transmission, the validity of mainstream media, and the social and political impact of the news are areas of contention in our lives. However, news has long been a vital feature of society. For example, newspapers were the most prevalent medium of information transmission to the greatest number of people during the mid-twentieth century.¹ Newspapers have been integral to the daily fabric of public and private life, and regularly provided readers with information and commentary on the impact of a newsworthy topic: the space race between the United States and the Soviet Union. This project compares and contrasts national space mythologies found in Soviet and American newspapers to explore national and personal identity and to show how state-centered institutions used newspapers to influence their readers’ understanding of world events. Indeed, both nations produced news infused with space mythology, but the level of state

¹ In the twentieth century, U.S. newspaper circulation rose from 48.4 million per weekday and 39.9 million per Sunday in 1945 to 60.4 million per weekday and 48.6 million per Sunday by 1965. By 1985 newspaper circulation per weekday peaked at 62.8 million and per Sunday circulation peaked at 62.6 million. By 2005, total weekday circulation dropped to 53.3 million and Sunday circulation dropped to 55.3 million. *U.S. Daily Newspaper Circulation, 5-year Increments*, (Pew Research Center, 2007), <http://www.journalism.org/numbers/u-s-daily-newspaper-circulation-5-year-increments/>.

involvement in the distribution of space mythology in the Soviet Union was much stronger than in the United States.

Why Look at Newspapers?

A comparison of 1960s U.S. and Soviet newspaper articles about their respective space programs will illuminate the discourse consumed by the general population of both nations. In “Toward a Global History of Space Exploration” historian Asif Siddiqi suggests that historians of technology should start researching the social history of space technology. He writes that “[l]ittle work has been done on public enthusiasm for the space program, mass campaigns in support of space exploration, and popular participation in programs usually identified with state-centered institutions.”² One way to approach public enthusiasm for their national space program is to look at the public’s consumption of space news, since this is one way that the public and “producers of the space program interact.”³

Using Siddiqi’s framework this project will show that newspapers readers interacted with state-centered institutions by reading space-related news. In the Soviet Union, the press functioned as the state-centered institution by which the space program’s news was disseminated. In the U.S., the National Aeronautics and Space Administration (NASA) was the state-centered institution that disseminated its news through various media outlets, including national newspapers. The relationship between the press and state-centered institutions was fundamentally different in each country; a difference that

² Asif A. Siddiqi, "Competing Technologies, National(ist) Narratives, and Universal Claims: Toward a Global History of Space Exploration," *Technology and Culture* 51, no. 2 (2010): doi:10.1353/tech.0.0459. 439.

³ Siddiqi, "Competing Technologies," 440.

is reflected in the tone, style and content of space news that media consumers read in their respective newspapers. In both cases, the press is the medium where producers of the space program interact with the public.⁴ The lived experience of consuming the news influenced public opinion; therefore, space news was critical to the state-centered institutions that desired public support for space programs.

Mythological Political Discourse In The News

The Space Age began in earnest with the launch of *Sputnik I* in the fall of 1957. The momentous event was reported in Soviet and American newspapers. Within a few years, the American response to Soviet technological advancement was cemented by President Kennedy's call to put a man on the moon by 1969. Both Nikita Khrushchev and John F. Kennedy used national mythological themes in their public discourse, which was regularly consumed by the public in newspaper articles.

On October 8, 1957, a brief statement was made in *Pravda* about the launch of *Sputnik I*, the world's first artificial satellite. The announcement described technical details about the spacecraft's size, speed, and orbital route. The achievement was accomplished by Soviet scientists who participated in the International Geophysical Year, 1957-1958. The announcement ended with a reference to the Russian mythology and Communist ideology that underlay the achievement: "Artificial earth satellites will pave the way to interplanetary travel and, apparently, our contemporaries will witness how the freed and conscientious labor of the people of the new socialist society makes the most

⁴ Ibid.

daring dreams of mankind a reality.”⁵ Khrushchev’s familiar reference to the ideology of socialism is rooted in traditions of Russian mythology about interplanetary space travel. The Khrushchev administration would soon reformulate and reinforce this traditional theme to claim that the dream of interplanetary travel was being achieved in modern life. The connection of the Soviet space program to the mythological themes of interplanetary travel will be explored in detail in Chapter 2.

The American media and political establishment initially panicked over the Sputnik launch. In a radio and television address, Eisenhower promised that Americans were safe; the nation had the best Strategic Air Defense, and that what the world really needed was “a giant leap into peace, not a leap into space.”⁶ This was not an answer to calm nervous politicians and pundits; nor did it reconstitute the comforting mythology of American superiority for the public. In fact, a year later, when the members of the Sprague committee completed their research on the national response to Sputnik, Eisenhower was told, “Our present reaching into outer space may pose for us the problem of finding a new identity to match the new dimensions of our world.”⁷ Eisenhower didn’t see the need to respond to the Soviets in-kind, and consequently did not provide a satisfying resolution to the perceived national identity crisis. However, the next President did.

⁵ NASA Historical Reference Collection, “Announcement of the First Satellite,” *Pravda*, October 5, 1957, accessed January 2016, <https://history.nasa.gov/sputnik/14.html>.

⁶ Dwight Eisenhower, “Radio and Television Address to the American People on Science in National Security.,” in *The American Presidency Project* (1957), <http://www.presidency.ucsb.edu/ws/index.php?pid=10946&st=&st1=>.

⁷ Donald Michael and Raymond Bauer, *American Reactions to Crisis: Examples of Pre-Sputnik and Post-Sputnik Attitudes and of the Reaction to Other Events Perceived as Threats*, (Washington, D.C, 1958), <http://history.nasa.gov/sputnik/oct58.html>.

The official connection of America's space program to a mythological national identity was accomplished during John F. Kennedy's presidential campaign. In his 1960 Democratic nominee acceptance speech Kennedy rallied Americans to the cause of the New Frontier, which included "a set of challenges" that appealed "to their pride" with "the promise of more sacrifice" in the frontier of "uncharted areas of science and space."⁸ During a speech at Rice University in 1962, Kennedy discussed the new Manned Space Flight Center in Houston, Texas. He said, "What was once the furthest outpost on the old frontier of the West will be the furthest outpost on the new frontier of science and space." He said, "We choose to go to the moon...and do these other things not because they are easy, but because they are hard, because that challenge is one that we are willing to accept...and one which we intend to win."⁹ Kennedy's political rhetoric about the American spirit of adventure, freedom and competition was, in fact, situated in the mythological themes of the expansion of the American Frontier and will be examined in detail in Chapter 3.

In both the Soviet and American space programs, mythological themes provide citizens with inspirational context. Political leaders hoped their citizens would support enormous expenditures of capital, time, and effort their space programs required. It was not a far-fetched idea that the public would respond positively to space mythology, since it was regularly consumed by the public in the twentieth century. Frontier space mythology and interplanetary travel mythology was expressed in films and television

⁸ John F. Kennedy, *The New Frontier*, John F. Kennedy Pre-Presidential Papers, 1958 - 1960 (1960), National Archives Catalog, <https://catalog.archives.gov/id/193148>.

⁹ John F. Kennedy, Address at Rice University on the Space Effort, Public Papers of the Presidents, ed. Gerard Peters and John T. Woolley (1962), The American Presidency Project. <http://www.presidency.ucsb.edu/ws/index.php?pid=8862&st=Rice+University&st1=>.

shows; science fiction; popular books and magazines; and in consumer goods.¹⁰ It was also present in newspaper discourse. So, this project compares and contrasts national space mythology in newspaper discourse that originates from the space programs themselves. In the Soviet Union, the discourse contained references to interplanetary travel, and in the United States it references frontier expansion.

Mythology as Interpretive Tool

In the article “Marxism-Leninism as Myth,” sociologists Barner-Barry and Hody identify five characteristics of myths, four general functions of myths, and three types of master myths. The authors use these definitions to show connections between the emotional function of mythology and the rational function of ideology in the political trajectory of the Soviet Union,¹¹ In this project, their terms and definitions provide a framework to identify the mythological themes present in newspaper discourse about the Soviet and American space programs. In other words, Barner-Barry and Hody examine how people think and feel about and react to national mythology. This essay cannot show how newspaper readers reacted to expressions of national mythology, but it can show the existence of national mythology that newspaper readers potentially consumed, which may have influenced how they reacted to the space program in their country.

¹⁰ For a discussion of popular culture and space in America see Howard E. McCurdy, *Space and the American Imagination* (Baltimore: Johns Hopkins University Press, 2011). For a discussion of space-related material and public culture in the Soviet Union see Cathleen Susan Lewis, *The red stuff: a history of the public and material culture of early human spaceflight in the U.S.S.R.*, PhD thesis, Washington, 2008 (ProQuest Dissertations Publishing, 2008). For a discussion of the space-focused mentality of U.S. media, literature and advertising see David Lavery, *Late for the Sky: The Mentality of the Space Age* (Carbondale: Southern Illinois University Press, 1992).

¹¹ Carol Barner-Barry and Cynthia Hody, “Soviet Marxism-Leninism as Mythology,” *Political Psychology* 15, no. 4 (December 1994), doi:10.2307/3791623. 618.

The word ‘mythology’ is not used to describe fantastical beliefs or ideas of the past that are untrue. Rather, ‘mythology’ signifies a collection of beliefs, ideas, and viewpoints that represent a shared historical past. Mythology, in this sense, gives an interpretation of past events that helps humans understand their place in the world. The mythology is psychologically persuasive enough that people internalize the myth’s values, and thus find an accessible common identity for social or political organization.¹² The authors recognize that, in the modern world most people would rather think of themselves as rational beings who do not need mythology, and prefer to interpret the world through the scientific method. However, we are still heavily influenced by myths because “we believe the values in myths are right and proper” even if they are based on a mixture of fact and fiction.¹³ This may explain how and why twentieth century Americans could relate to the phrase “a new frontier” in much the way a Soviet person could relate to the phrase “a path to the stars.” These phrases already had meaning and represented specific values and a shared national identity which were subsequently associated with each space program.

According to Barner-Barry and Hody, the three kinds of master myths are: 1) the foundation myth, 2) the sustaining myth, and 3) the eschatological myth.¹⁴ This study will focus mostly on the foundation myth in each space program to highlight its expression in newspaper discourse. Identifying a society’s connection to space mythology may help us understand how it promotes a renewed national identity; acts as a factor of social cohesion (or dissonance), and as a vehicle to work out their reactions to social burdens of

¹² Barner-Barry and Hody, “Soviet Marxism-Leninism as Mythology.” 610.

¹³ Barner-Barry and Hody, 609-610.

¹⁴ Ibid. 624-626.

the space race. It has not been unusual for historians of either space program to mention different representations of space mythology in American culture and Soviet culture. They have discussed mythology in terms of cultural and social issues of national identity, material production and consumption, and the ideological and rhetorical use of space mythology in Soviet and American life.

Primary Sources

The primary sources selected for this project are newspaper articles. In addition, since NASA had its own media capabilities, NASA news releases are also included in this study. All primary sources selected are digitized copies of printed publications. Digitized sources were easily accessed and illuminate the great value of research in digital format alone. For the Soviet portion, the project uses primary sources found in the database for the *Current Digest of the Russian Press* (1949-1991).¹⁵ This source is a compilation of English-translated selections from several Russian language newspapers of the Soviet era such as *Pravda*, *Izvestia* and *Literaturnaya Gazeta*. Since these newspapers were viewed as mouthpieces of the Soviet government, they represent official positions and views of the people responsible for the Soviet space program. These news articles would have been consumed by a public that was eager to learn about the space program.

This author recognizes that the selected newspaper article sources do not represent the entirety of space-related newspaper articles ever published in either the U.S.

¹⁵ *The Current Digest of the Russian Press*, East View Information Services, dlib-eastview-com.unr.idm.oclc.org. The author is constricted to English language sources and the *Current Digest* is the best translation of original source material from the time period under discussion.

or the Soviet Union. While the *New York Times* has digitized all of its issues, there were obviously other local and regional newspapers that published articles about the space program which are not included in this study. Similarly, the American editors of the *Current Digest* made decisions about what should be translated for American consumption, which may have led to the omission of some space news articles published in the Russian language.

The primary sources selected for the American space program are more complex. They include two types of primary sources: NASA news releases and *New York Times* (NYT) news articles from the 1960s.¹⁶ The *New York Times* was selected because it was a nationally respected newspaper with an average daily circulation of 757,294 in 1965, and provided extensive distributed coverage of the national space program.¹⁷ While the U.S. does not have a state-sponsored newspaper, the NYT is widely considered to be a newspaper of record in the country, and contains broadly distributed public discourse about the space program.

The American side of the project is complicated by NASA's practice of sending news releases to media outlets; which, in turn, did not always print their stories. That does not mean that space news was rare. In fact, the amount of *New York Times* newspaper articles published about any space-related topic in the 1960s is voluminous. Therefore, for the purpose of finding a manageable sample size, the NYT's database was queried with the terms "National Aeronautics and Space Administration" and

¹⁶ "ProQuest Historical Newspapers™" ProQuest Historical Newspapers: *The New York Times*, proquest-com.unr.idm.oclc.org.

¹⁷ Sulzberger, Arthur Hayes. Statement of Ownership, Management and Circulation. New York: The New York Times, 1965.

“spaceflight” and later “National Aeronautics and Space Administration and “Frontier.” The first exercise investigated whether spaceflight-oriented stories existed in the NYT, and the second exercise investigated how often news articles referenced the national space mythology of frontier expansion.

NASA’s main mission in the 1960s was to land astronauts on the moon and return them home safely. Americans generally associated spaceflight with the Kennedy Space Center (KSC), the national space port. News from KSC may have resonated with the public more than news from other NASA facilities, as it was an extremely popular tourist destination. Thus, KSC’s digitized news releases fit well into a project focused on space news consumption.

Historiography - Comparative Space History

In the study of twentieth century space programs, historians have viewed them through the lens of politics, space policy, and the role of the space science and technology competition of the Cold War. Historian Walter A. McDougall has written a seminal work about the relationship between policy creation and technology with his comparison of the Soviet Union and American space programs.¹⁸ He argues that politics benefitted from the "institutionalization of technological change for state purposes" and he labels both countries technocracies.¹⁹ This book is important because it explains how the space programs were internally and internationally politicized, and how they symbolized the technological advancements that governments believed each society should pursue.

¹⁸ Walter A. McDougall, *The Heavens and the Earth: A Political History of the Space Age* (Baltimore, Md.: Johns Hopkins University Press, 1997).

¹⁹ McDougall. *The Heavens and the Earth*. 5.

McDougall also describes how people enmeshed in ascending tiers of power in each country managed space technology to broaden and achieve their goals. The tiers of power ranged from academics to politicians and from civilian to military experts. However, the book only deals with the upper echelons of Soviet and American power and its promotion or resistance towards developing a technocracy in the twentieth century. It does not address the role of the media in supporting either of the space-centered technocracies, and does not address how the general public interacted with the space programs in their technocratic roles.

Red Moon Rising author and journalist Matthew Brzezinski provides a comparative micro-history of the competitive nature of the U.S. and Soviet space agencies as they struggled to launch the first satellite.²⁰ Brzezinski's premise is that the U.S.-Soviet satellite competition consisted of various unknown rivalries. For instance, outside of the Soviet space program, no one knew who the chief rocket designer was, and yet the Americans were trying to beat him to a satellite launch for the International Geophysical Year (1957-1958). Brzezinski also describes the competition that was going on behind the scenes between the U.S. military and nascent civilian space industry. US scientists wanted to study meteorology, but the military wanted to test spying capabilities. Also, the rivalry between Vice President Nixon and Lyndon Johnson heated up, as did the inter-service rivalry between the Army Ballistic Missile Agency and the Navy. Various national U.S. space agencies were proposed, but NASA eventually won out, so there was also competition in the civilian space arena.

²⁰ Matthew Brzezinski, *Red Moon Rising: Sputnik and the Hidden Rivalries That Ignited the Space Age* (New York: Times Books, 2007).

According to Brzezinski, Sergei Korolev, the Soviet Union's preeminent rocket engineer, was the ultimate catalyst for the successful construction and launch of Sputnik and the whole Soviet space program.²¹ As Brzezinski tells it, Korolev used the potential benefits of beating the Americans to space via a successful satellite launch to distract Khrushchev from the difficulties he was having with the V-7 rocket. Korolev's plan ultimately won him approval to spend more time working on his pet project.²²

Brzezinski's book cites several *New York Times* and *Pravda* articles and many other news publications throughout his narrative to show how the press influenced each country's response to new developments in space travel. While not his main primary source, Brzezinski's newspaper citations show that the public consumed news about the space race as it played out in the public sphere, even as much more complex issues took place out of public view. Brzezinski's journalistic sources provide examples of the drama and tension that the *Sputnik* launch caused in American life, the political maneuvering of different government agencies and space advocates in the U.S., and the rhetorical sparring that occurred between the Soviet Union and the U.S. as the space race proceeded. Brzezinski's book also illustrates that historians often treat newspapers as mere anecdotal evidence.

Historiography - American Space History

American space policy and public affairs professor Howard E. McCurdy discusses

²¹ Brzezinski, *Red Moon Rising*. 274.

²² Ibid. 42-45. This is different from Asif Siddiqi's claim that Korolev intentionally and masterfully manipulated his superiors with reports of American advancement in rocketry so that he could finally carry out his space dream. Asif Siddiqi, *The Red Rockets' Glare: Spaceflight and the Soviet Imagination, 1857-1957* (Cambridge, UK: Cambridge University Press, 2010). 331.

the role of imagination in the space race but focuses on the process of policy creation for the American space program.²³ His book, *Space and the American Imagination* looks at “the process of reconciliation by government of imagination, popular culture and real events”²⁴ which was integral to building public acceptance of U.S. space policies.

McCurdy writes, “Imagination matters when societies contemplate new ventures. People must be able to visualize a solution” and “believe the goal is attainable.” McCurdy agrees with historian Walter A. McDougall that the combination of imagination, economy and technology got the space program off the ground.²⁵

The public was primed to accept space travel by means of the early science fiction books, pulp comics and films of the 1920s and 1930s. Hence McCurdy explains that to the public, it seemed as if “human spaceflight was just around the corner.”²⁶ The public appetite for space travel was strong when science and imagination gelled during the 1950s. This was due in part to rocket scientist Werner von Braun’s collaboration with Walt Disney, von Braun’s space travel PR tour, the publication of *Colliers* magazine’s 8-part series about the Hayden Planetarium space lectures and movies, and the impact of Chesley Bonestell’s realist space art that depicted humans in space as a thing of beauty and spiritual importance.²⁷ According to McCurdy, all of these factors were vital because of the way they prepared Americans to accept a robust public space policy. He said, “To become public policy, the vision must seem feasible, desirable. The validity of the vision

²³ Howard E. McCurdy, *Space and the American Imagination* (Baltimore: Johns Hopkins University Press, 2011).

²⁴ McCurdy, *Space and the American Imagination*. 2-3.

²⁵ Ibid. 57.

²⁶ Ibid. 32-33.

²⁷ Ibid. 34-48.

is determined by its compatibility with cultural beliefs and the ability to attract a large audience by exciting and entertaining them.”²⁸ Imagination was the first step on the path to a real space program.

However, imagination wasn’t the only requirement. McCurdy says that “culture shifts prepare the public for changes in government policy that some precipitating event triggers. The cultural equilibrium is broken by punctuating events that allow officials to initiate policy change.”²⁹ In this case, the punctuating event was the Soviet *Sputnik* launch. The culture shifted away from the imaginary spacefaring nation to the immediacy of *becoming* a space-faring nation. As McCurdy argues, the “works of imagination” altered public perceptions of space travel and the skeptical began to think it could happen.³⁰ *Sputnik* proved space travel was really possible. A major policy change happened soon after with the creation of NASA and the subsequent launch of the space race, thanks to President Kennedy’s moon-shot speech.

Historiography - Soviet Space History

Historian of Soviet science Paul Josephson has conceptualized the Soviet space program as one stream of the build-up of large-scale technologies during the twentieth century push to modernize the U.S.S.R.³¹ Josephson echoes MacDougall’s view of technocracy when he says, “The Soviet fascination with technology as a panacea for

²⁸ McCurdy, *Space and the American Imagination*. 6.

²⁹ Ibid. 236.

³⁰ Ibid. 235.

³¹ Josephson, Paul R. “Projects of the Century” in *Soviet History: Large-Scale Technologies from Lenin to Gorbachev*. 1995 *Technology and Culture* Vol. 36 No 3 pp. 519-559. Johns Hopkins University Press and SHOT.

social and economic problems mirrors that in the West” because it “embraced large-scale technologies with the support of government, scientists, engineers, and often the public.”³² There was nothing more modern or more visible than sending a satellite to outer space in 1957.

Josephson also emphasizes the ideological value of large-scale technology in the Soviet Union. He says that a “technicist” Marxism reinforced an “almost unbounded faith in science and technology.” Thus, the “display value” or “social, cultural and ideological significance, of large-scale technologies” in the Soviet Union were “symbols of national achievement.”³³ These achievements were especially important to the Soviet government, for they reflected “the omniscient power of scientists and engineers” and gave “legitimacy to political systems.” During the Cold War, large scale technology was “central to national security strategies” and could even “entrance a public” that was “intoxicated with symbolism.”³⁴ Indeed, the space program held immense ideological value for the Soviet Union.

While the Soviet space program may not have been physically similar to the other large-scale projects of gigantism that Josephson described, it did have great display value, both nationally and internationally. He noted that Khrushchev maximized the display value of the space program’s “series of firsts” which included “the first satellite, man in space, two-manned shot, woman in space, space-walk, soft landing.” These firsts “convinced the Soviets” and much of the world that Soviet science was superior.³⁵ Their

³² Josephson, “Projects of the Century,” 519.

³³ Ibid.

³⁴ Ibid. 520-521.

³⁵ Ibid. 539.

achievements were much greater than the Western world expected and the shock value of the space accomplishments was immense. The early success of the space program had an impact on how Soviet people viewed their lives.

Josephson describes how the Soviet people responded to the space program in his book chapter "Rockets, Reactors and Soviet Culture" which is included in Loren Graham's *Science and the Soviet Social Order*.³⁶ Josephson's research shows that the Soviet public responded favorably, and had a palpable interest in what the space program was accomplishing for their nation.³⁷ Also, it meant that space culture was alive and well; their utopian vision was confirmed by results in real life. Thus, the space program was more than a technological program, it had social, cultural and personal significance. Josephson explains that the Soviet people actually believed that conquering the cosmos would give them a path to the stars.³⁸ They believed that cosmic research would lead to interplanetary travel, and that space was the key to the Soviet future. Soon they would be climbing into the cosmos to reach other planets and solar systems.³⁹

Josephson came to this conclusion because of the way people interacted with space news in journals and popular magazines. He saw that highly educated Soviet people asked questions and raised concerns about cosmonaut safety and the cost of running a space program. However, they approved of the technical and social consequences because of their belief that technology was the highest form of culture.⁴⁰ It

³⁶ Paul R. Josephson, "Rockets, Reactors and Soviet Culture," in *Science and the Soviet Social Order*, ed. Loren Graham (Cambridge: Harvard Univ Press, 1990), 168–192.

³⁷ Josephson. "Rockets, Reactors and Soviet Culture." 169, 170, 172.

³⁸ Ibid. 176-179.

³⁹ Ibid. 188-189.

⁴⁰ Ibid. 191.

was a positive feedback loop. The best culture produced the best technology; and the best technology produced the highest culture. While Josephson writes about the public commentary in journals and popular magazines, he does not address what the public consumed in newspapers, which represented the official state policies regarding the space program.

One of the most important current Soviet space historians, Asif Siddiqi, wrote *The Red Rockets' Glare: Spaceflight and the Soviet Imagination, 1857-1957*. It is groundbreaking work on cultural and social space history in Russian and Soviet history because it challenges twentieth century hagiographical trends, and places the development of the *Sputnik* into a deep historical context, reaching back into the nineteenth century. Siddiqi frames the history of the Soviet space program as the “popular mobilization for science and technology, rather than a story of state directives and elite communities.”⁴¹ In other words, he tells the story of Russian and Soviet working-class people who were also space enthusiasts.

While the Soviet space program has been an engaging historical topic, Siddiqi noted that much of the literature has been hagiographic, focused on the effects of the terror on institutional rocket research and development, and was mainly a study of great men like engineers and scientists Korolev, Glushko, and Keldysh.⁴² Poor archival access was a major research impediment for previous historians, but Siddiqi fared well because his research occurred after the dissolution of the USSR. Siddiqi’s book is groundbreaking

⁴¹ Asif A. Siddiqi, *The Red Rockets' Glare: Spaceflight and the Soviet Imagination, 1857–1957* (New York, NY: Cambridge University Press, 2010). 8.

⁴²Siddiqi, *The Red Rockets' Glare*. 4. A highly respected, popular and thorough biography about Korolev was written by James Harford: *Korolev: How One Man Masterminded the Soviet Drive to Beat America to the Moon* (New York: Wiley, 1999).

and effective because he extensively cites primary source material from eight different Russian archives, and published Russian language primary sources, journals and newspapers.

The role of imagination in space popularization was a common theme of Siddiqi's review of cosmos-oriented amateur groups and societies, journals and popular science publications, lectures and exhibitions, art, film and literature.⁴³ The ideas of early advocacy groups were grounded in mystical beliefs about interplanetary travel which influenced their conception of the purpose of rocketry. It would help humans explore, populate and conquer the cosmos. Many early interplanetary travel advocates were Cosmists and Biocosmists, and included well-known Russians such as philosopher Nikolai Fedorov, early rocket scientist Konstantin Tsiolkovskii and bio-chemist V.I. Vernadskii.⁴⁴ Interestingly, Siddiqi does not address how the public may have consumed space news that was published in state sponsored newspapers.⁴⁵ Siddiqi's approach of interpreting Soviet space culture from the bottom up leaves room for an investigation of the intersection of Soviet space culture and news consumption.

Even though launch-capable rockets did not yet exist, regular citizens had many opportunities to participate in space culture in the 1920s.⁴⁶ Average citizens could pursue their own space interests; even build personal networks to promote ideas and concepts that kept their space travel dreams alive. One of the more interesting and convincing

⁴³ Siddiqi. *The Red Rockets' Glare*. See chapter 3, "Imagining the Cosmos".

⁴⁴ Also suggested by James T. Andrews in *Red Cosmos: K.E. Tsiolkovskii, Grandfather of Rocketry*. (2009) Texas A&M University Press. 17-19.

⁴⁵ Like most scholars, Siddiqi treats newspaper references anecdotally. He focuses on popular science journals as a source to show how the public interacted with the Soviet space program. See Chapter 3, pg. 87-92, subheading Technological Utopianism: The Media.

⁴⁶ Siddiqi, *The Red Rockets' Glare*. 82.

elements of Siddiqi's argument is that rocket and space engineers like Korolev and Glushko owed their accomplishments to their work with earlier amateur rocketry groups, which flourished only because of the way they used their imagination to pursue the possibilities of space travel. Siddiqi explained how these men worked out their passions in the ICBM program and eventually produced the *Sputnik* satellite.⁴⁷

A Brief Comparison of Twentieth Century Soviet and American Journalism

The news was not made in an ideological or rhetorical vacuum. In *The World's Great Dailies: Profiles of Fifty Newspapers*, American journalism professors John C. Merrill and Harold A. Fisher comment on the ideological differences between newspapers in authoritarian regimes and the free world.⁴⁸ Their evaluation was made in 1980, before the fall of the Soviet Union. Their academic and professional opinions represent the state of elite newspaper publishing during the Cold War. Merrill and Fisher believe that newspaper greatness is a matter of context. They do not discount newspapers from Communist countries because of ideological differences with Western countries. They write, "There is no cause for rejecting the premise that within the serious influential press of any political system there is a certain respect and concern with seriousness, humanity, and social progress."⁴⁹ This is a helpful reminder as we compare Soviet and American journalism.

⁴⁷ Ibid. See chapter 4, "Local Action, State Imperatives".

⁴⁸ John C. Merrill and Harold A. Fisher, *The World's Great Dailies: Profiles of Fifty Newspapers* (New York: Hastings House, 1980).

⁴⁹ Merrill and Fisher, *The World's Great Dailies*. 15.

The twenty-first century American scholar might have an innate prejudice against the Soviet press and assume that all of its space journalism was simply propagandistic. However, Merrill and Fisher are “not interested in dismissing the entire government-controlled press of the world as propaganda and unreasonable journalism.”⁵⁰ Merrill and Fisher believe that authoritarian countries use their press for very specific purposes. Chapter 2 will explain the specific purpose of the Soviet press with respect to their national space program. Suffice it to say, the Soviet press was instrumental in directing daily life.

In a closed society like the Soviet Union, the press was responsible for disseminating news, but the newspapers, more importantly, directed the citizen on the best way to function in their society. In Merrill and Fisher’s estimation, the newspapers of an authoritarian “elite press” disseminate “the necessary social and political guidance of the closed society” and it is the reader’s responsibility to “read it pragmatically.” The purpose of the newspaper is to make the reader “a well-integrated member of his society” who is “indoctrinated for concerned activity.” Yes, such an elite press is “an instrument with which to control the social system.”⁵¹ However, Merrill and Fisher also recognize “the importance, leadership, seriousness, and considerable reasonableness of the authoritarian elite.”⁵² Clearly, in their opinion, the best authoritarian newspapers served the vital function of managing a closed society successfully.

Merrill and Fisher devise a classification scheme of *Quality* and *Prestige*, which indicates characteristics of the world’s best daily newspapers. They suggest that a *quality*

⁵⁰ Ibid.

⁵¹ Ibid., 9.

⁵² Ibid., 16.

daily newspaper is “a courageous, independent, news-views oriented journal, published in an open society.” A *prestige* daily newspaper is “a serious journal of some power elite, concerned with dogma or policy dissemination, spokesman or propagandist for some person or group, and published in a closed society.” Naturally, a *prestige* paper “wields influence among the audience submissive to that institution.” Merrill and Fisher believe that the elite press of authoritarian regimes like the Soviet Union are “part of the world’s serious and influential press” and are to be “counted among the ‘great’ daily newspapers of the world.”⁵³ More specifically, they recognize that “Marxist or Communist press considers itself socially responsible, and certainly is responsible to its own social system.”⁵⁴ They select *Pravda* as the Soviet Union’s ‘Greatest Daily’ or best *prestige* newspaper. *Pravda*’s influence on Soviet society will be discussed more in Chapter 2.

In *Discovering the News: A Social History of American Newspapers* journalism and sociology professor Michael Schudson lays out how American journalism in the 1960s was permeated by a tension between “objective” and straight news.⁵⁵ Schudson describes how the critical culture of the 1960s spurred younger journalists to call “for a more active journalism” and to be “skeptical of official accounts of public affairs.”⁵⁶ This was part of “the emergence of...an adversary culture...that provided an audience for a

⁵³ Ibid., 13-14.

⁵⁴ Ibid., 25.

⁵⁵ Michael Schudson, *Discovering the News: A Social History of American Newspapers* (New York: Basic Books, 2011). For a recent discussion of the debate among newspaper publishers, editors and journalists regarding objective and interpretive reporting see the essay by Matthew Pressman, "Objectivity and its Discontents: The Struggle for the Soul of American Journalism in the 1960s and 1970s," in *Media Nation: The Political History of News in America*, ed. Bruce J. Schulman and Julian E. Zelizer (Philadelphia: University of Pennsylvania Press, 2017).

⁵⁶ Schudson, *Discovering the News*, 162.

more aggressive and more skeptical journalism.”⁵⁷ So, within the profession, some journalists practiced straight reporting and others took a more critical, interpretive stance.

Traditional journalists struggled with the wider cultural rejection of objectivity, because they believed it was the hallmark of the journalism profession. The general criticism was that objective journalism contained “the most insidious bias of all” which made reporters reproduce “a vision of social reality which refused to examine the basic structures of power and privilege.” If journalists reported objectively, cultural critics accused them of “collusion with institutions whose legitimacy was in dispute.”⁵⁸ In general, the government was a prime target of this criticism. Since NASA was one of the most prominent government institutions in the 1960s, journalists who reported less than critically on NASA may have been recipients of this cultural criticism.

Schudson calls the two sides of the 1960s journalism-debate a “frozen pattern” that distinguished “between straight reporting and interpretive reporting” because of how differently journalists produced their work. He says that an interpretive reporter finds the “background,” “uncovers motives for actions” and “tracks down the side issues” while “the straight reporter passively accepts the public record.” Additionally, he said the “straight news was the stock in trade of the wire services and most reporters” while “interpretive reporting was the work of a privileged few.”⁵⁹ The visible tension between these two patterns of reporting is discussed in greater detail in Chapter 3.

Finally, Schudson also describes the resentment that U.S. journalists felt against the emergence of government publicity offices that controlled stories published in the

⁵⁷ Ibid., 163

⁵⁸ Ibid., 162.

⁵⁹ Ibid., 168.

newspapers. The critical culture had recognized “an increasing government management of the news” over the previous sixty years.⁶⁰ By the 1950s and 1960s there was a “growing concern” that management of the news had been centralized in the executive branch.⁶¹ Government control increased, but not because of censorship; it flooded journalists with information via its own publicity officials.⁶² The information did not reflect real events, but rather covered “pseudo-events” or happenings planned “for the immediate purpose of being reported or reproduced.”⁶³ For a while, Schudson says “journalists complained, but did not challenge the routines of government news management and creation of pseudo-events” until “something changed” in the 1960s.⁶⁴ The aversion to publicity and pseudo-news also influenced the way NASA organized its public affairs and publicity arrangements with external media and news agencies.

A View of NASA as News Media

The comparison of Soviet and American space-related newspaper content is complicated by the fact that America’s press was independent of government oversight. NASA’s self-generated news was filtered by the decisions of external editors and journalists who followed their own journalistic standards. Therefore, the space news that the American public consumed may not have been exactly what NASA public affairs wanted them to know. A recent book, *Marketing the Moon: The Selling of the Apollo Space Program* interprets NASA’s space-race media in a marketing context, and it also

⁶⁰ Ibid., 163.

⁶¹ Ibid., 168.

⁶² Ibid., 167.

⁶³ Ibid., 170.

⁶⁴ Ibid., 171.

explains how NASA's early Public Affairs office deployed the style of news reporting that its officials preferred.⁶⁵

In the early days of the U.S. space program, the small public affairs office functioned like a newsroom. It was staffed by professional journalists who disseminated information rapidly, without spinning or selling the latest space program events.⁶⁶ They did this in real time; when there was news to share, it went out to the press and broadcast media. The public affairs office focused on educating reporters and publishers so that the space program could be explained correctly to widen the taxpayer's knowledge base.⁶⁷ Schudson's argument about the tension between objective and interpretive reporting highlights the possibility that external journalists and reporters may have been suspicious of NASA's penchant for disseminating straight news and so they may have declined to use NASA's news releases. Alternatively, journalists and reporters may have produced more critical space news articles for public consumption.

NASA's Public Affairs and Publicity issues were managed separately, which complicated the American consumption of space news even more. For example, the task of providing publicity about the astronauts and their families was given to the publishers of *LIFE* magazine. Thus, NASA's journalists did not have to deal with the public's appetite for human-interest stories about the Mercury 7 astronauts or most of the astronaut teams that came after them. Instead, NASA journalists and reporters gathered and furnished "unvarnished facts" about the space program to the media, and more

⁶⁵ David Meerman Scott and Richard Jurek, *Marketing the Moon: The Selling of the Apollo Lunar Program* (Cambridge, Massachusetts: The MIT Press, 2014).

⁶⁶ Scott and Jurek, *Marketing the Moon*, 17.

⁶⁷ *Ibid.*, "Introduction," x.

importantly, to Congress.⁶⁸ The public affairs journalists provided news releases, films, and interviews that were all “ready-made” and intended to be used “word-for-word” by the recipients for distribution to the public.⁶⁹ Much of the news from NASA was highly technical, but the “news reporters within the agency” tried to convert it into “useful information for the press.”⁷⁰ NASA hoped that the general press would replicate the news for public consumption in newspaper articles and other media outlets.

Furthermore, Julian Scheer, appointed the head of Public Affairs at the Washington headquarters in 1963, clearly stated that NASA news was an information program, not a publicity and marketing service. He said, “We don’t put out publicity releases. We put out news releases. When we have news, we disseminate it.”⁷¹ While Scott and Jurek have thoroughly explained the marketing aspect of the Apollo program and Scheer’s view of the news function at NASA, they do not discuss NASA’s use of news releases, or explain if the general press accessed the news releases. Scott and Jurek explore NASA’s use of television broadcasts, the astronaut contract with the popular journal, *LIFE*, the press kits for NASA partners and contractors, and the 50-state Apollo publicity tour after the mission was completed, and much more.

In any case, NASA’s Public Affairs activities offer a case-study of an American, state-centered institution’s influence on twentieth century news cycles. By reviewing the content of newspaper articles about the space program we learn that news media discourse does not often correspond to the space agency’s own message. Unlike the

⁶⁸ Ibid., 16-17.

⁶⁹ Ibid., 21.

⁷⁰ Ibid., 17.

⁷¹ Ibid., 32.

Soviet press and their references to interplanetary travel, we learn that NASA's news function rarely included references to the national mythology of frontier expansion. This is significant because national space mythology was present elsewhere in official U.S. discourse at the start of the space race.

Among the momentous events covered by the twentieth century press was the launch of the first Sputnik satellite by the U.S.S.R.'s space program in October, 1957. Newspapers around the world were splashed with headlines and images about the shocking and amazing news. The Soviet and American newspapers published many articles about the space race from then on, making space news a regular topic during the late 1950s and 1960s. However, was there any significance to all of this news beyond a recounting of world events? This thesis argues that there was, and that space-related news was important to U.S. and Soviet readers because it represented a reformulation of national identity that reinforced certain cultural and personal values.

Expressions of national mythology in both space programs anchored people's lives in traditional mythological themes that had the potential to bring meaning to their experience of the space age. The role of newspaper media in this process should not be underestimated because newspapers were a vital conduit of public discourse, enabling the distribution and consumption of national mythologies. This project will show that during the first decade of the space race, the Soviet press dispersed a purpose-driven and cohesive message about their space program that reinforced its national mythology. In comparison, the American press distributed a less cohesive, but still effective version of America's national mythology. In Soviet space news, the dominant mythological theme was that of interplanetary travel, while in the U.S. it was a mythology of the frontier.

Chapter 2 – Soviet Space Mythology: Interplanetary Travel

Russian and Early Soviet Utopias of Interplanetary Travel

The main theme of Soviet space mythology centers on interplanetary travel. Early references to interplanetary travel occurred in Russian literature during the 18th century. Historian Alexander V. Riasanovsky and political scientist Alvin Z. Rubinstein have touched on this subject in their discussion of the ties between “Russian Utopia and Soviet Communism” in 1963.⁷² They have argued that “Communist ideology” alone was insufficient to explain Khrushchev’s vision of a Soviet future, because Russia had a long history of utopian thinking. They write, “Speculation about the future of Russian and prophetic visions of “the perfect society” can be traced back to medieval Russia.” Their purpose was to discuss utopian Russian writings and “demonstrate their links to the latest party program.”⁷³ They suggest that the current Soviet society represented a mixture of old and new “reactions to specifically Russian problems, needs, and aspirations.”⁷⁴ The old utopias referenced outer space and were a cultural touchstone during the Soviet era.

Russian utopian themes were common, and included space travel. Riasanovsky and Rubinstein describe two 18th-century authors who wrote stories about venturing into the cosmos. The first example was Feodor Dmitriev-Marmonov, who wrote about “a nobleman-philosopher who constructed a miniature replica of the universe on his estates in order to conduct fantastic social and economic experiments.” Then there was Vasilii

⁷² Alexander V. Riasanovsky and Alvin Z. Rubinstein, "Russian Utopia and Soviet Communism," *Social Science* 38, no. 3 (June 1963): 151-167. Accessed May 2016, JStor.

⁷³ Riasanovsky and Rubinstein, "Russian Utopia," 151.

⁷⁴ *Ibid.*, 152.

Levshin, who published *Newest Voyage* in 1784. It was a story about a hero named Narzim, who “with the aid of a marvelous flying machine, made a trip to the moon” and brought moon-people back to earth. Riasanovsky and Rubinstein include space travel in their discussion of Russian utopias because they found “interesting glimpses into Russian speculation on social and scientific themes.” Other 17th and 18th-century utopian themes included Russia as “the chosen instrument of world salvation;” as a land of plenty; as the bringer of the end of persecution and oppression; as the hero of the people; and as the symbol of the benefits of serving society and the futility of selfishness.⁷⁵ It is unsurprising that all of these themes are also present later in twentieth century official newspaper discourse about space travel.

By the 19th-century, literary utopian ideas still represented the desire for scientific and technological advancement. Riasanovsky and Rubinstein describe Vladimir Odoevskii’s “fictional narrative *The Year 4338*”, which was “a brief, imaginative account in Russia in the fifth millennium.” In the story, “the practical fruits of scientific progress were enjoyed by the entire population” and science was “a great force for the betterment of the human condition.” The “scientific achievements of the far future” included “ground and air mechanical transportation, climate control, city-side central heating and interplanetary travel.”⁷⁶ Utopian ideas were not limited to the Russian countryside. They often included leaving earth and traveling to another planet.

While 19th century Russia was tumultuous for intellectuals who had “many visions of the future” and whose “hopes and predictions became abundant and varied,

⁷⁵ Ibid., 152-153.

⁷⁶ Ibid., 155.

they still included a “socialist utopia” and going “forward to the stars.”⁷⁷ The work of Riasnovsky and Rubinstein is important to this thesis not only because of its scholarly insights, but also because it was produced contemporaneously with the peak years of the Soviet space program. “In the USSR today,” they argued, “the society of the future is no longer a matter for private theorizing; it is now a state project behind which stand all the resources of the Soviet Union and a leadership committed to its attainment.”⁷⁸ However, Riasnovsky and Rubinstein also sensed problems associated with building Communism; that “institutional developments” were “kept deliberately vague.” Instead, they wrote that there was only a hazy goal, and “private dreams, needs and desires tend to fill in the details.”⁷⁹ Perhaps this was true, but if viewed through Barner-Barry and Hody’s mythology framework there may be another explanation.

At the time Riasnovsky and Rubinstein wrote their essay, mythology about interplanetary space travel was in use and was psychologically persuasive enough that people internalized the myth’s values and found “an accessible common identity for social or political organization.”⁸⁰ In other words, the mythology was not required to be explicitly clear to have an influence on people’s dreams and plans; mythology only needed to be accessible and meaningful to have a wide impact on national identity while official developments were simultaneously vague.

The Russian utopian themes of interplanetary travel persisted during the early twentieth century. Historians James T. Andrews and Asif A. Siddiqi both see

⁷⁷ Ibid., 157.

⁷⁸ Ibid., 163.

⁷⁹ Ibid., 167.

⁸⁰ Barner-Barry and Hody, “Soviet Marxism-Leninism as Mythology,” 610. (Addressed in this essay, pages 21-22).

Biocosmism and the space fad of the 1920s as the foundational myth of Soviet space mythology.⁸¹ Andrews explains that Biocosmists “believed in the importance of spreading ideas on interplanetary travel,” thought space travel was the way to achieve immortality, and believed mankind was uniquely capable of using technology to conquer nature for the purpose of exploring and colonizing the cosmos. Andrews calls the Biocosmists “millenarians and utopians” that were influenced by the teachings of the “pre-Revolutionary philosopher Nikolai Federov.” Federov was popular with “Russian intellectuals.” Even the Russian grandfather of rocketry, Konstantin Tsiolkovskii, was “one of Federov’s most avid disciples” who helped spread mystical ideas in the popular media of the day. It may be hard to understand how Russian scientists could be so involved with Federov’s mystical ideas about immortality and regeneration among the stars,⁸² but Barner-Barry and Hody’s discussion of mythology again provides us with a clue.

They write that, “the truth or falsity of a myth is not what gives it its psychological persuasiveness. Most myths about the modern world are some combination of fact and fiction. What is important, however, is that people internalize the myths and their values.” In fact, myths “may be true, partly true, or blatantly false.” Finally, they write, “what matters is that it is possible for perfectly ordinary, reasonable people to regard them as true.”⁸³ Thus, Andrews’ discussion is relevant because the consumption of

⁸¹ James T. Andrews and Asif A. Siddiqi, *Into the Cosmos: Space Exploration and Soviet Culture* (Pittsburgh, PA: University of Pittsburgh Press, 2014).

⁸² Andrews and Siddiqi, *Into the Cosmos*, 43-44. See also footnote 10, p. 44

⁸³ Barner-Barry and Hody, 610.

popular science media and the efforts of science educators to get space-related topics into public hands was the conduit for the internalization of Soviet space mythology.

Andrews describes how “during the Soviet 1920s, professional science educators also served as popularizers of space flight and rocketry.” A Leningrad physicist named Ia. I. Perel’man “published many articles on rocket science and space travel in the several widely distributed popular journals he edited.” The articles legitimately had “an educational focus.” Perel’man also published a book called *Interplanetary Travel* (ca. 1915) and served in the Ministry of Education “where he worked on curricula reform.” He introduced “the basics of physics, mathematics, and astronomy into secondary school curricula” and “fought hard to substantiate the importance of rocketry on the public mind.”⁸⁴ The distribution of scientific fact by Perel’man and others like him was underscored by Biocosmist strands of interplanetary travel promoted by Federov and mimicked by Tsiolkovskii.⁸⁵ It is thus easier to understand how a connection to the mythology of interplanetary travel is maintained into the twentieth century. It is a powerful mythology that any Soviet person interested in rocketry or space travel may have internalized.

Asif A. Siddiqi also connects Soviet cosmonautic achievements to “technological utopianism and the mystical occult tradition of Cosmism” practiced by regular citizens. This connection shows that mythology was also present in “amateur societies, the press,

⁸⁴ Andrews and Siddiqi, 44-45.

⁸⁵ Asif A. Siddiqi, “Imagining the Cosmos: Utopians, Mystics, and the Popular Culture of Spaceflight in Revolutionary Russia,” *OSIRIS* 23, no. 1 (January 2008), doi:10.1086/591877. See pages 266-267 in which Siddiqi says that Federov and Tsiolkovskii had separate visions about space travel. They “never discussed space travel although both had begun thinking of the possibility at this time.”

literature, painting, film and other popular culture” of the 1920s and 1930s.⁸⁶ This reminds us of Barner-Barry and Hody’s suggestion that “myths are created through a social process.”⁸⁷ Siddiqi illustrates this point when he describes how the excitement around spaceflight motivated people to participate in “short-lived societies to discuss their interests and exchange information” about the latest advances of rocketry and interplanetary travel. Members of the amateur societies “put up impressive exhibitions displaying the visions of ... Tsiolkovskii, the American Robert Goddard, and the Romanian-German Herman Oberth.” Cultural expressions of the “mystical and spiritual ideas of the place of humanity in the cosmos” were also found in “the science fiction of Alexei Tolstoi,” modern paintings of the Suprematists and the Amaravella collective, and “Iakov Protazanov’s famous interplanetary movie *Aelita*.”⁸⁸ Clearly, by this point in the twentieth century, Soviet society had internalized many values associated with interplanetary travel mythology which gave meaning to their lives and helped them identify their place in the world.

Furthermore, Barner-Barry and Hody also tell us that “myths have a practical purpose.”⁸⁹ Perhaps this is how we should interpret the “the Bolshevik Party’s effort to realign scientific and technical work for socialist reconstruction” in the 1920s, when they removed cosmism as the inspiration for interplanetary travel.⁹⁰ Siddiqi explains that the Bolsheviks were “technophiles” who wanted to avoid “Tsiolkovskii’s mystical invocations” in favor of constructing “a vision of space travel” made possible by “a new

⁸⁶ Siddiqi, “Imagining the Cosmos,” 262.

⁸⁷ Barner-Barry and Hody, 611.

⁸⁸ Siddiqi, 261.

⁸⁹ Barner-Barry and Hody, 612.

⁹⁰ Siddiqi, “Imagining the Cosmos,” 285.

world of machines and men.”⁹¹ With this change of focus, space advocates brought their cosmic goals down to earth by developing reactive motion to conquer the stratosphere, a problem that had to be solved in real life for rocketry to advance, regardless of how it was framed.⁹² The change from Cosmism to practicality may represent how technological utopianism functioned for a time as the sustaining myth of Soviet space mythology.

Siddiqi also provides more detail about the popular science literature that Andrews mentioned in his article. Siddiqi notes, “the number of articles on spaceflight published between 1923 and 1932...the key years of the space fad, amounted to nearly 250 articles and more than thirty books.” This is significant in comparison to the United States, where “only two nonfiction monographs on spaceflight appeared in the same period.” Germany, however, experienced “comparable levels of media attention” to the Soviet space fad.⁹³ These details are relevant because they show that space mythology had a significant impact on Soviet culture.

Additionally, the readers of space-related science media were “not merely passive receptors of information on spaceflight” but engaged in “explanatory, interactive and informational” dialogue via letters to the editor and published editor responses about a wide variety of space travel topics. Siddiqi notes that “the transformative, beneficial, and modernizing aspects of space travel were rarely, if ever, questioned in the exchange of ideas.”⁹⁴ This is important to understand because spaceflight and interplanetary travel were not even close to being accomplished in the 1920s and 1930s. Yet the long-standing

⁹¹ Ibid. 268.

⁹² Ibid. 286.

⁹³ Ibid. 272-273.

⁹⁴ Siddiqi, “Imagining the Cosmos,” 273.

affinity with cosmic space mythology was sustained by the latest information available on interplanetary travel. Soviet people believed it had practical and important implications for their future.

The Soviet people showed their affinity for national mythology by attending public displays of interplanetary travel in exhibits, film and art.⁹⁵ Siddiqi describes their reaction to the “World’s First Exhibition of Models of Interplanetary Apparatus, Mechanisms, Instruments, and Historical Materials” held in Moscow in 1927. It was visited by 10,000 to 20,000 people during the two months it was open. The attendees “included schoolchildren, workers, service employees, artists, scientists, policemen.” The responses included one man who said entering the exhibit was like crossing “over the threshold of one epoch to another, into the space era.” Another man said, “we understand this is not a fantasy but a completely feasible idea supported by the achievements of science and engineering.” Another said, “it would be desirable that our inventors achieve the first landing on the moon.” And finally, a newspaper reporter said, “I am going to accompany you on the first flight. I am quite serious about this...take me with you.”⁹⁶ The model of Barner-Barry and Hody is again applicable here, since they advise that “myths are shared, they forge bonds between people and create community.”⁹⁷ The people who attended this exhibit had diverse backgrounds, but were united by their consumption of future-oriented space mythology.

⁹⁵ Ibid., 279-283. The author discusses the most important Russian science fiction film about interplanetary travel, *Aelita* and the avant-garde artwork of the Suprematists and the informal artists who made up the Amaravella.

⁹⁶ Ibid., 277.

⁹⁷ Barner-Barry and Hody, 614.

By 1933, Siddiqi explains that “the indigenously maintained space fad” had to either go underground, or be disbanded by “the Bolshevik Party’s effort to realign scientific and technical work in the country for socialist reconstruction.”⁹⁸ This was reflected in the press, where “journals that had popularized utopian discussions about space travel” decided to cover “technical knowledge applicable to workers on the shop floor” which “marginalized many seemingly outlandish ideas such as space exploration.” Likewise, Siddiqi says “societies, media, and art” about interplanetary travel “disappeared or mutated to new forms.” Avant-garde art and science-fiction literature and film were also banned.⁹⁹ However, the connection to interplanetary travel mythology was not completely lost.

Siddiqi explains that many of the old space advocates survived the radical changes of the 1930s and even “embraced the discursive shift from indefinite utopia to definite industrialization” by changing the way they framed and discussed their work. Instead of working on or talking about “rockets flying into space” engineers tried to solve the “problem of ‘reactive motion’” for “the realistic goals that were part of the prevailing state culture of aviation.” The space advocates “never stopped aiming for outer space, they redefined the problem into smaller chunks” for the purpose of finding solutions to real problems in aviation research.¹⁰⁰ Barner-Barry and Hody’s model comes to mind again, as they say “myths can be used to persuade people to hold certain political beliefs and attitudes—and when necessary, to act on them.”¹⁰¹ In this case, perhaps the

⁹⁸ Siddiqi, 285.

⁹⁹ Ibid. 285-286. *Aelita* was banned in 1936; Jules Verne was banned as a recommended children’s book writer in the late 1930s.

¹⁰⁰ Ibid., 286.

¹⁰¹ Barner-Barry and Hody, 612.

mythology of interplanetary travel was so powerful that space advocates were compelled to make political and social changes to save their connection to the myth that gave their lives meaning and purpose.

Mid-Century Adjustments to Interplanetary Travel Mythology

Researcher Matthias Schwartz describes the state of science journalism and interplanetary travel during the Soviet era in his essay “A Dream Come True: Close Encounters with Outer Space in Soviet Popular Scientific Journals of the 1950s and 1960s.”¹⁰² It appears that the turn away from mystical Cosmist ideas was publicly complete and that the practical purposes of space activity were internalized in the culture by the mid-1950s. Schwartz says the official discourse about the space program “had to focus almost exclusively on the improvement and development of the socialist present.” If outer space was discussed, it was as “just another unsettled area full of natural resources, which would be conquered by the almighty Soviet technical inventions of the near future.” Thus, popular science journalists focused on “the technical and scientific particulars of space flight” and educated readers “about the evolution of the universe or the astronomic systems of different galaxies...”¹⁰³ However, Schwartz argues, the younger generation were not intrigued with practical official discourse until the “first interplanetary passenger, the dog Laika” traveled to outer space in November, 1957.¹⁰⁴

¹⁰² Matthias Schwartz, “A Dream Come True: Close Encounters with Outer Space in Soviet Popular Scientific Journals of the 1950s and 1960s,” in *Soviet Space Culture: Cosmic Enthusiasm in Socialist Societies*, ed. Eva Maurer, Et. al. (New York: Palgrave MacMillan, 2011). 232-250.

¹⁰³ Schwartz, “A Dream Come True,” 234.

¹⁰⁴ *Ibid.*, 235.

Schwartz notes that as the technology-focused political rhetoric about the space program prevailed for a decade, subscriptions to popular science magazines dramatically increased. *Science and Life* rose from 150,000 copies in 1957 to 1,750,000 in 1965; and *Technology for Youth* rose from 250,000 in 1957 to 1.2 million in 1964.¹⁰⁵ He recognizes that the popularity of Gagarin and Valentina Tereshkova made them the “new ‘stars’ of the Soviet firmament” but also that the journals started to publish a “discourse that was much more ambivalent than the transformed political ‘cult of personality,’ the established schemes of science popularization, and the international ‘peaceful competition’ suggest.”¹⁰⁶ In other words, the message that the space-interested public read in popular science journals started to change.

Schwartz believes that the newly ambivalent message about the purpose of the space program was a side effect of the Thaw. Instead of just writing about the “way in which humans conquer and explore outer space” some science journalists suggested that exploring outer space was “a new field of close encounters with other beings, strange worlds, different civilizations...unknown fields of knowledge and unresolved secrets of human history.” These ideas are not quite as mystical as Biocosmist beliefs, but similarly, they were openly discussed by “known academics and engineers, practitioners and laymen, writers and readers.”¹⁰⁷ Schwartz believes their discussions caused a “fundamental shift in the notion of the role of humans as part of the universe.”¹⁰⁸

¹⁰⁵ *Ibid.*, 236.

¹⁰⁶ *Ibid.*, 237.

¹⁰⁷ *Ibid.*, 237-238.

¹⁰⁸ *Ibid.*, 240.

However, I would propose that the old interplanetary travel mythology was re-emerging from the Bolshevik-era ideology that had buried it in the 1930s.

As Barner-Barry and Hody's version of a master eschatological myth, Soviet space mythology is complicated. The Biocosmists believed that mankind's destiny lay in interplanetary travel and the colonization of other planets.¹⁰⁹ When the Bolsheviks removed the cosmist strand from space mythology and embraced a technological utopian worldview, the Soviet people focused on earth-bound technologies instead. Yet that changed from 1957 forward when outer space became accessible. The old mythology about interplanetary travel was reformulated to reflect its new cultural and social significance.

For example, when Academician Boris Chertok reflected on his memories of the Red Square celebration of Gagarin's historical flight, he said,

It was the whole people who did it. Smiling Muscovites poured into the streets and filled Red Square carrying homemade signs, "Everyone into space!" The whole nation celebrated. The flight of the first human being into space, and the success of Soviet science and technology, served to unite spiritually all social strata. The "Khrushchev Thaw" had slipped into decline, and ideological pressure of the Cold War was already felt. Gagarin's flight once again infused us with hope for a bright future...each citizen of the Soviet Union felt that he or she personally had a part in this great enterprise: It wasn't an American or a European, but our man from Smolensk who, through the labor of our scientists and the efforts of our entire nation, had accomplished this feat.¹¹⁰

This example suggests that the physical venture into space helped renew Soviet national identity, provided social cohesion through shared values, and helped the Soviet people identify their place in the space-age world. Whether the Soviet people absolutely believed that "Everyone" would go "into space" cannot be determined, but it seems clear that the

¹⁰⁹ See discussions by Asif A. Siddiqi and James T. Andrews.

¹¹⁰ Boris E. Chertok, *Rockets and People: Hot Days of the Cold War*, ed. Asif Siddiqi (Washington, DC: NASA History Division, 2009), Vol. 3. 55.

official discourse about space travel never truly obliterated the traditional Russian desire to be among the stars.

Historian Slava Gerovitch's book *Soviet Space Mythologies* contributes to this study due to his focus on how some Soviet people used space mythology to create their identity.¹¹¹ Gerovitch's definition of mythology is similar to Barner-Barry and Hody's definition. He says, "the term *myth* is used here without implying the truth or falsity of any particular historical claim but merely to stress the foundational, identity-shaping character of such claims." Gerovitch focuses, however on the tensions between memory and myth-making by and about the Soviet space program. He writes that "the practices of cultural construction and transmission of space mythology...played...an outstanding symbolic role due to the systematic efforts of different agents to create and disseminate space myths, suppress counter-memories, and privately cultivate counter-myths." His work is important because it explains how space industry workers were emotionally, socially and politically invested in the space program, and thereby affected by space mythology in their daily life. Soviet people interacted with space mythology as both a public and private representation of socialist identity.¹¹²

Like Andrews and Siddiqi, Gerovitch identifies a connection to Cosmism and the way the Bolshevik Revolution "energized those trends by adding a utopian technological movement." He calls the Soviet space program "the ultimate expression of technological utopianism" because it "expanded the Soviet aspirations to dominate and transform nature for human ends" [...] "into the boundless realm of outer space." The amazing

¹¹¹ Slava Gerovitch, *Soviet Space Mythologies: Public Images, Private Memories, and the Making of a Cultural Identity* (Pittsburgh: University of Pittsburgh Press, 2015).

¹¹² Gerovitch, *Soviet Space Mythologies*, 159.

successes of the early space program made it possible for the government to “boost its political and moral legitimacy” by imprinting the triumphs into cultural memory and turning them into powerful historical myths, such as the “master narrative” of “a heroic tale of fearless cosmonauts and omnipotent engineers.” Gerovitch also explains that the “individual retelling” of Soviet space stories and “collective projects of remembrance gradually transformed historical events into mythological epics, shaping the identity of generations.” This includes the “Sputnik generation” who know they have been influenced by the space age, even if they were too young to personally remember the details.¹¹³

One of the main myths of the Soviet space program was centered on the cosmonauts. Gerovitch says that “a handful of flown cosmonauts stood both literally and figuratively...for the entire space program.” This was because almost everything else was enveloped in secrecy. For example, “space engineers were prominently absent from public view” and “depictions of space rockets and spacecraft” were “concealed from public view” or completely fabricated. Indeed, details about “the spaceflights themselves remained shrouded in mystery.”¹¹⁴ Even the depictions of cosmonauts were “idealized descriptions” that embodied “the new ideological construct of the New Soviet Man.”¹¹⁵ Gerovitch suggests that “the cosmonaut myth played a major role in Khrushchev’s attempts to de-Stalinize Soviet society and to reconnect with the original revolutionary aspirations for a communist utopia.” Thus, the “futuristic visions of space took center stage. Escaping Earth’s gravity came to symbolize...total liberation and the logical

¹¹³ *Ibid.*, 4.

¹¹⁴ *Ibid.*, 11.

¹¹⁵ *Ibid.*, 12.

beginning of an era of freedom.”¹¹⁶ The cosmonaut symbolized that the previously utopian ideas about interplanetary space travel were becoming reality and had real possibilities for the future.

In fact, Barner-Barry and Hody’s point is that “a myth is like a drama. It is a story with a beginning a middle and an end.”¹¹⁷ Perhaps the cosmonaut myth was so compelling because it represented the mid-point of a cosmic drama that would end when “everyone into space”¹¹⁸ became a reality. Or, perhaps the cosmonaut myth collectively reinforced that building a socialist society was the right thing for the Soviet people to do. Gerovitch says the “Party leadership...wanted to make the cosmonauts into a very specific symbol—an emblem of the communist dream come true.”¹¹⁹ Thus, it could also be argued that the cosmonaut myth was mostly about the success of the Soviet state,¹²⁰ even though Red Square was filled with ecstatic people celebrating Gagarin’s triumph on April 14, 1961. Historian of science, Loren Graham, suggests also that the Soviet people fully believed they had the best science, and held the key to the future of civilization, based on Gagarin’s symbolic accomplishment.¹²¹ This shows that the state and regular citizens freely accessed and intermingled the meaning of space mythology for their own purposes.

The Soviet State Manages Space Mythology

¹¹⁶ Ibid., 14.

¹¹⁷ Barner-Barry and Hody, 611.

¹¹⁸ Recall Boris Chertok’s account of what the people were saying as they celebrated Gagarin’s flight in the streets of Moscow, p. 34-35 of this essay.

¹¹⁹ Gerovitch, 131.

¹²⁰ Ibid., 130.

¹²¹ Gerovitch, 140.

A clear example of the Soviet state's use of space mythology is found in historian Trevor Rockwell's M.A. thesis.¹²² Rockwell provides unique insight for this study because he describes exactly how Khrushchev mythologized Yuri Gagarin and the events surrounding his iconic flight in space. Rockwell compares and contrasts the Gagarin propaganda found in official biographies to several resolutions of the late 1950s and the 1961 Party Program which included a "moral code for the builders of communism."¹²³ Rockwell identifies Gagarin as the prime mythological example of Soviet life. He clearly outlines how Gagarin was inserted into space mythology as the "vision of a new man" or "new Soviet" citizen of the Khrushchev era.¹²⁴ While Gagarin's mythology has "remained one of the few uncontested Soviet images of the post-Soviet era"¹²⁵ Rockwell acknowledges that "an in-depth study of cosmonaut hero-myths and their implications for late and post-Soviet culture" is still needed.¹²⁶ Gagarin's biographies were widely read, and are evidence of the public consumption of space mythology that was obviously state-sponsored.

Cathleen Lewis' PhD dissertation shows how pervasive space-related material culture was in the Soviet Union after *Sputnik*. In "The Red Stuff: A History of the Public and Material Culture of Early Human Spaceflight in the U.S.S.R." she explains how the

¹²² Trevor Rockwell, "The Road to the Stars is Paved by the Communists!': Soviet Propaganda and the Hero-Myth of Iurii Gagarin," (Victoria, BC, Canada, 2005), ProQuest Dissertations and Theses Global, <http://unr.idm.oclc.org/login?url=http://search.proquest.com.unr.idm.oclc.org/docview/305380387?accountid=452>.

¹²³ Rockwell, "The Road to the Stars," 37.

¹²⁴ *Ibid.*, 3-4.

¹²⁵ *Ibid.*, 94.

¹²⁶ *Ibid.*, 92.

state control of content in Soviet museums and mass memorabilia differed.¹²⁷ Material culture, monuments and museums were directly accessed by the public and Lewis examines it because “this cross section of the program best represents the cosmonaut experience that the average Soviet citizen witnessed during the course of the 1960s.”¹²⁸ Also, her work on material culture shows the perspective of the average Soviet citizen, which is not reflected in official Party documentation.¹²⁹

Like Andrews and Siddiqi, Lewis recognizes that “no one in the Soviet Union, including the pilots, technicians, engineers and scientists...would ever have considered spaceflight realistic or even rational...had they not accepted the cultural traditions of the 1920s and 1930s.”¹³⁰ For Lewis, the “men of space...lived out the science fiction fantasies of previous generations [and] fulfilled the myths of Soviet legends.”¹³¹ Soviet people could read cosmonaut biographies and also visit exhibits and collect memorabilia about the space program. It was as if the mythology of interplanetary travel had come to life.

The main medium for public consumption of cosmonaut mythology was the official biography and it was tightly controlled by the state.¹³² Lewis also shows that most of the cosmonaut and space flight public culture was controlled by the state. She says, “the first space exhibition in the Soviet Union on record was a small commemorative display featuring...space-related stamps, postcards, znachki (pins), and commemorative

¹²⁷ Cathleen Lewis, “The Red Stuff: A History of the Public and Material Culture of Early Human Spaceflight in the U.S.S.R,” (The George Washington University, ProQuest Dissertations Publishing, 2008. 3301472.)

¹²⁸ Lewis, “The Red Stuff,” 5.

¹²⁹ *Ibid.*, 18.

¹³⁰ *Ibid.*, 40.

¹³¹ *Ibid.*, 105.

¹³² As shown by Trevor Rockwell’s thesis.

coins.” Only the *znachki* were not monitored by the state, and were allowed because of increased consumer demand for collectible goods.¹³³ But, stamps, postcards and commemorative coins were authorized solely by the government.

The Soviet people wanted access to more than small items of memorabilia, though. After 1961, “large and small space-themed exhibitions and museums sprouted up across the Soviet Union.”¹³⁴ Lewis explains that museums and exhibits served a need because “Soviet visitors...yearned for any affirmative portrayal of their national life.” More importantly, “space exhibits complemented and reinforced the official message about human spaceflight.”¹³⁵ Lewis’ research also shows that the content was short on technical details, but, they “promised the continuation of Soviet achievements in space.”¹³⁶ Recall that, according to Barner-Barry and Hody, mythology does not have to be perfectly representational of reality to elicit an emotional connection and reaffirmation of the values that the myth represents; technical details were not a prerequisite for belief.

While Lewis’ dissertation does not overtly correlate space culture to interplanetary travel mythology, it helps explain where the people interacted with space and cosmonaut culture approved by the Soviet state during the 1960s. The combined implications of both Trevor Rockwell’s thesis and Ms. Lewis’ dissertation show that cosmonaut mythology was readily accessible to the Soviet people from official channels and in more loosely-controlled material sources. Another aspect of the state control of

¹³³ Lewis, 228- 234.

¹³⁴ *Ibid.* 202-207; 216. For example, the Monument to the Conquerors of Space was erected in 1964 in Moscow; the Kosmos Pavilion in 1966.

¹³⁵ *Ibid.*, 259.

¹³⁶ *Ibid.*, 385.

Soviet space culture is found in newspapers, a source that has not been examined by Soviet space historians.

The “Governmentality” of the Soviet Press

In his book *Governing Soviet Journalism: The Press and the Socialist Person After Stalin*,¹³⁷ historian Thomas C. Wolfe views the Soviet press through Foucault’s conception of “governmentality.” In this sense, he believes the press is an “invention in the art of government” that is used to mold people’s thinking and actions “in a way that is appropriate to an institution, a social practice or an idea.”¹³⁸ Since the Communist Party “directed, supervised and administered” the press, it reflected the party’s interest in socialist transformation, and newspapers “occupied a key position at the nexus of education, information and culture.”¹³⁹ The purpose of the newspapers was to “guide the transformation of the conduct of those who formed a socialist society.” As such, the newspapers were “instruments of general education and enlightenment.”¹⁴⁰ With respect to the space program, the newspapers were the official channel for news and information and guided the interpretation of the meaning of space travel in the twentieth century.

In order to reach the people, the distribution of Soviet newspapers expanded. According to Wolfe, “the decade with the single largest increase in total circulation” happened “between 1960 and 1970,” when it “doubled from 68.5 million copies to 140.7

¹³⁷ Thomas C. Wolfe, *Governing Soviet Journalism: The Press and the Socialist Person After Stalin* (Bloomington, Ind.: Indiana Univ. Press, 2005).

¹³⁸ Wolfe, *Governing Soviet Journalism*, 4.

¹³⁹ *Ibid.*, 6.

¹⁴⁰ *Ibid.*, 7.

million.”¹⁴¹ This covers almost the entire period of the space race. So, it seems reasonable that increasing amounts of people learned about the Soviet Union’s space program during this decade. The distribution was also organized hierarchically according to the vertical organization of the party and government and the horizontal organization of ten social and occupational groups.¹⁴² The organizational structure of news delivery insured that people consumed news and information that was nationally and personally relevant to them.

For official news, readers turned to the newspaper of the Communist Party, *Pravda*. Journalist Angus Roxburgh’s book reviews the way this newspaper was organized during the Soviet era. *Pravda: Inside the Soviet News Machine* was written in the late-Soviet period and corresponds with Wolfe’s view of the Soviet press as a tool of governmentality.¹⁴³ Roxburgh says the four principles of Soviet journalism were “party-spiritedness,” “ideological correctness,” “being for, by, and close to the people,” and “truthfulness.” The journalists were not reporters, but were purposefully engaged in the administration of society and the economy. They publicized and explained the Party’s decisions and tried to channel public opinion towards the official Party line. Their duties were not to reflect, but to organize and urge readers to action, competition, and the achievement of high productivity of labor.¹⁴⁴ Thus, with respect to the space program, they wrote articles that reflected official views and goals, but also encouraged people to accept and support national space efforts.

¹⁴¹ *Ibid.*, 5.

¹⁴² *Ibid.*, 8. The press hierarchy was instituted in 1926 and lasted until 1990.

¹⁴³ Angus Roxburgh, *Pravda: Inside the Soviet News Machine* (New York: Braziller, 1987).

¹⁴⁴ Roxburgh, *Pravda*, 50-51.

Journalists Merrill and Fisher reinforce just how important *Pravda* was in the Soviet Union:

Everything Pravda publishes is in harmony with its goals and basic functions. Its main editorial, which reiterates the Party's purposes or explains its actions is wired or broadcast in full to all major papers each day. As the guardian of the Party line, Pravda takes a position on all questions of public life, and the other Soviet media follow its lead. In short, the voice of Pravda is heard regularly throughout the whole land and, since it is one of the most-often quoted papers of the world, its influence is international. Its reputation for giving the "official line" on all important matters makes its essential reading for all patriotic Soviet citizens.¹⁴⁵

The authors also say that *Pravda* provided a high-quality experience for its readers. They say it "contains well-written special features on cultural subjects, interpretive articles on science written by outstanding scientists."¹⁴⁶ As such, the space program featured prominently in *Pravda* during the space race.

The primary source for this project's review of space-related articles in the Soviet press is the *Current Digest of the Soviet Press*. The *Current Digest* was started in 1949 by the Joint Committee on Slavic Studies of the Social Science Research Council (SSRC) and the American Council of Learned Societies (ACLS). It is an English language translation of selected full articles and condensed excerpts from newspapers *Pravda*, *Izvestia* and many others from the Soviet era. The volumes are digitized, and the *Current Digest* database is where the following primary sources were retrieved.¹⁴⁷

¹⁴⁵ Merrill and Fisher, *The World's Great Dailies*, 246. See discussions in Chapter 1, "Greatness a Matter of Context" and "Great Newspapers-Striving for Quality and Prestige."

¹⁴⁶ Merrill and Fisher, 244.

¹⁴⁷ The database manager, East View Information Services, has renamed the database *The Current Digest of the Russian Press*. It was initially accessed in person at Stanford University's Cecil H. Green Library online database in January 2017, (<https://searchworks.stanford.edu/view/6524825>) then regularly at the University of Nevada Reno Libraries (<http://dlib-eastview-com.unr.idm.oclc.org>).

Interplanetary Travel Discourse in the Soviet Press

In late October, 1957 the *Current Digest* published an excerpt of a *Pravda* article originally published in the Soviet Union on September 17, 1957, before the launch of *Sputnik I*.¹⁴⁸ The article commemorated the centenary of the birth of Konstantin Tsiolkovsky, the father of modern Russian rocketry. It was written by S. Korolev, a “Corresponding Member of U.S.S.R. Academy of Sciences.” He was, in fact, the Chief Designer of the space program, only identified publicly upon his death. The article is basically Korolev’s history lesson about Tsiolkovsky’s life and legacy. Korolev considered Tsiolkovsky’s most interesting research “the problem of interplanetary travel” and noted that Tsiolkovsky theorized about using “atomic energy and the radiant energy of the sun in interplanetary flight.” Korolev stated that Tsiolkovsky “saw the possibility of a tremendous development of scientific research and use of the results obtained in visits by man to other planets.” Korolev also tied Tsiolkovsky to the Soviet regime by saying, “K.E. Tsiolkovsky willed all his works on aviation, rocket flight and interplanetary travel to the Bolshevik party and the Soviet regime.” The latest authority on interplanetary travel was thus identified as the Communist Party. Here, *Pravda* is doing its part to educate and direct the Soviet people on the significance of interplanetary travel to their country.

In the November 13, 1957 issue of the *Current Digest*, an article from *Trud*, a state-sanctioned newspaper of the All-Union Central Council of Trade Unions, was

¹⁴⁸ *The Current Digest of the Soviet Press*, Vol. IX, No. 37, 41. Oct. 23, 1957. dlib-eastview-com.unr.idm.oclc.org.

published.¹⁴⁹ The article “Space Man” covered an interview conducted with V.V. Dobronravov, a Doctor of Physics and Mathematics. It was originally published on October 11, days after the first *Sputnik* launch. In it, Dobronravov says, “we can already speak of flights to the moon as something within reach in the near future.” Even more surprising is his statement that “Soviet and foreign scientists are also planning to fly to Mars” using “1700-ton interplanetary ships” that would first orbit the earth, then fly to Mars in 256 days. After staying “on Mars or on its orbital satellite” for 440 days, the interplanetary ship would return to earth. The entire voyage was estimated to take three years, and Dobronravov suggested it would be “possible by the end of the twentieth century.”

In the meantime, they were also designing “projects for flights to Mars in shorter periods.” First, they would use radio-controlled ships, but then “the first days of the astronauts would arrive.” Astronauts would be protected by “special suits to maintain human life in interplanetary space.” The details of maintaining life in zero-gravity were “all being given serious study both in the Soviet Union and abroad.”¹⁵⁰ The Soviet space program was often criticized for its lack of technological transparency. However, as these articles show, within a month of the Sputnik launch the press presented a very specific picture about the purpose of the space program. The main goal was interplanetary travel, and steps were being undertaken to achieve it.

The public was also notified that the Moscow Planetarium would show a film about research done by a Technical Sciences Candidate called the LVM Project. The

¹⁴⁹ *The Current Digest of the Soviet Press*, Vol. IX, No. 40, 6. Nov. 13, 1957. dlib-eastview-com.unr.idm.oclc.org.

¹⁵⁰ *The Current Digest of the Soviet Press*, Vol. IX No. 40. 6. dlib-eastview-com.unr.idm.oclc.org.

original article was published in *Literaturnaya gazeta* on September 14, 1957, well before the launch of *Sputnik I*.¹⁵¹ LVM is the acronym for Luna, Venus, Mars and the project aimed to send radio-controlled space ships and robotic rovers to do research on these three planets. The film shown at the Planetarium “gave the audience a chance to see how the scientist visualizes a highly important step in studying the moon—the landing of a radio-controlled tankette-laboratory on the surface of the planet.” The graduate student writes an article that “briefly outlines the basic principles of his new project.” This is an example of a public exhibition that presented clear, believable, scientific information about interplanetary travel.

Professor Dobronravov provided another article in *Promyshlennno-ekonomicheskaya gazeta* (The Industrial and Economic Gazette), included in *The Current Digest* on November 20, 1957.¹⁵² Dobranravov comprehensively described the anticipated accomplishments of the space program. He described “the creation of radio-controlled satellite-rockets” that would be “able to return to earth.” He predicted that “man will be able to board rockets” after the right engines are designed, men are trained properly and good spacesuits are designed. He also explained that “manned rocket satellites” would maneuver in space, and that people would exit the craft into space itself. They would also “create large “space stations” that will fly around the earth” that “spaceships will be able to take off from...for distant interplanetary flights.” He said that “interplanetary ships” would “assemble on the flying stations.” He also explained how a ship would orbit the moon, descend, land, and ascend for a flight back to Earth. He ended the article with:

¹⁵¹ *The Current Digest of the Soviet Press* Vol. IX No 40. 6-7. dlib-eastview-com.unr.idm.oclc.org.

¹⁵² “From Artificial Satellite to Flight to the Moon” *The Current Digest of the Soviet Press* Vol. IX, No 41. 10. dlib-eastview-com.unr.idm.oclc.org.

“The launching of the artificial earth satellite is man’s first step into interplanetary space.” Professor Dobronravov’s assurances made it sound like the old myths of interplanetary travel were about to come true.

In the same volume of *The Current Digest*, an article from *Pravda*, written by Academician L.I. Sedrov was published.¹⁵³ Sedrov believed that “the launching of the artificial earth satellite was an important event in the development of human culture.” He said that “the door into space is open.” An article from *Literaturnaya gazeta*, by Professor E. Kolman explained that advances in biological science were imminent.¹⁵⁴ This included discovering how to “ensure the normal life of man in a medium with other conditions of gravity, temperature and pressure of cosmic radiation.” In other words, men were going to learn how to live in space. This would represent a monumental change, as Sedrov said, in the development of human culture.

The December 4, 1957 edition of *The Current Digest* included an article originally published in *Partiinayaa zhizn* (Party Life).¹⁵⁵ The author G. Pokrovsky tied the accomplishments of the space program directly to the development of the ICBM by “Soviet scientists, engineers, and workers in numerous factories and institutes.” He said that the “rocket is the first prototype of a spaceship” that had “a speed approximating cosmic flight.” But, the involvement of the people was not just a top-down affair,

¹⁵³ “An Important Step in the Development of Astronautics” *The Current Digest of the Soviet Press* Vol. IX, No 41. 10. dlib-eastview-com.unr.idm.oclc.org.

¹⁵⁴ “A Thrust Into the Cosmos” *The Current Digest of the Soviet Press* Vol. IX, No 41. 10. dlib-eastview-com.unr.idm.oclc.org.

¹⁵⁵ “Event of World Significance” *The Current Digest of the Soviet Press*, Vol IX, No. 43. 16. dlib-eastview-com.unr.idm.oclc.org.

organized and managed by the Party, as Pokrovsky suggested.¹⁵⁶ It also was not just the scientists, engineers and workers that were interested, either. Many Soviet people were vigorously supportive of the news about *Sputnik I* and wanted to be personally involved with the space program.

In the June 6, 1959 issue of *The Current Digest* we see that *Pravda* received many letters about the space program from the public.¹⁵⁷ By this time, the 3rd satellite had launched, and “9,000 letters from citizens and public organizations” were received at the “Soviet-Sputnik” mail address, as well as “thousands of letters and telegrams” at *Pravda* and other newspaper editor’s offices. Interested persons sent the “Moscow-Sputnik science center” “93,000 radio bearings from the satellite’s “Mayak” [“Beacon”] transmitter and about 15,000 optical observations.” In addition, *Pravda* said “many Soviet people have indicated to Moscow-Sputnik a desire to participate in the first cosmic flight: 2,344 such applications have been received since the launching of the first satellite” and there “are quite a number of group applicants” as well. This shows that many Soviet people were not passively engaged with space mythology; they personally wanted to participate in interplanetary travel.

The USSR continued on its path to interplanetary travel with the first-ever space flight of Yuri Gagarin on April 12, 1961. The momentous event was reported in both newspapers, *Pravda* and *Izvestia*, the next day. The May 10, 1961 issue of *The Current*

¹⁵⁶ Recall Asif Siddiqi’s and James T. Andrew’s essays about popular Soviet space culture and especially that Siddiqi’s book *The Red Rockets’ Glare* describes how the Soviet space program originated in popular science and space advocacy groups.

¹⁵⁷ “Letters from Working People” *The Current Digest of the Soviet Press*, Vol. XI, No. 20. 26. dlib-eastview-com.unr.idm.oclc.org.

Digest included the full announcement.¹⁵⁸ The accomplishment was “an unprecedented victory of man over the forces of nature, the greatest achievement of science and technology, a triumph of human reason.” They said that “the foundation has been laid for manned space flight.” The Party leaders reminded readers that the Soviet Union fired the first intercontinental ballistic missile; launched the first satellite; launched the first space ship to the moon; sent the first satellite to the Sun, and launched the first space ship to Venus. In addition, they said that “Soviet space ship-satellites bearing living creatures have carried out flights in space and returned to the earth.” The 1957 plans for interplanetary travel must have seemed assured by all the successes of the Soviet space program in only 5 years.

The Party attributed the space program’s major success to “the working class, the Soviet peasantry, the Soviet intelligentsia-all Soviet people” because their country “forged ahead of all the other states in the world” to “blaze a trail into outer space.” This message was repeated constantly in official announcements, including in the telephone conversation of Gagarin and Khrushchev¹⁵⁹ and in the speeches by Gagarin and Khrushchev at the Red Square celebrations.¹⁶⁰ There was a repeated message that the nation’s success and overall identity was tied to interplanetary travel. Thus, space

¹⁵⁸ “To The Communist Party and People of the Soviet Union!” *The Current Digest of the Soviet Press*, Vol. XIII, No. 15. 5. dlib-eastview-com.unr.idm.oclc.org. The announcement was made by the “Central Committee of the Communist Party of the Soviet Union, Presidium of the U.S.S.R. Supreme Soviet and U.S.S.R. Council of Ministers. The Kremlin”

¹⁵⁹ “N.S. Khrushchev’s Talk with First Cosmonaut Yu. A. Gagarin” (*Pravda*, April 13 2. and *Izvestia* April 14. 1. *Izvestia* title: “Your Exploit Will Live Through the Ages.”) *The Current Digest of the Soviet Press*, Vol. XIII, No. 15. 5, 6. dlib-eastview-com.unr.idm.oclc.org.

¹⁶⁰ “Great Exploit Will Live Through the Ages! -Meeting and Demonstration in Red Square” (*Pravda*, April 15, 1-2). *The Current Digest of the Soviet Press*, Vol. XIII, No. 15. 6. dlib-eastview-com.unr.idm.oclc.org.

mythology was effectively reinforced in the national consciousness because it was consumed by Soviet newspaper readers.

A few months after Gagarin, German Titov's 25-hour space journey provided vital proof of man's ability to survive interplanetary travel. A TASS special correspondent documented Titov's mission in *Pravda* and *Izvestia* on August 7-8, 1961.¹⁶¹ The article uses a casual, eyewitness approach to the events, but the reporter dutifully ties the space program to the goals of the Communist Party by saying, "Perhaps here at the cosmodrome one especially appreciates the aptness of the comparison of the draft party program with a space rocket launched toward the future...". So, a *Pravda* or *Izvestia* reader was reminded that the 1961 Communist Party Program detailed future goals and plans, and here the journalist infuses those plans with the force of a space rocket. Trevor Rockwell's thesis also informs us that Gagarin's official biography was the model of the New Soviet Man, described in the 1961 party program. Thus, regardless of whether newspaper readers were conscious of the connection, their Soviet future was bound up with the mythology of interplanetary travel via the fusion of space imagery and party ideology.

In October 1962, German Titov's speech to the Moscow Province Party Organization was published in *Izvestia*.¹⁶² In the speech, Titov assured his audience, "My cosmonaut friends are preparing for new flights" because "the era of the conquest of

¹⁶¹ "Vostok-2 Takes Off"-Reportage on Historic Flight (By Tass Special Correspondent A. Romanov, *Pravda*, extra edition, Aug. 7. 2.) *The Current Digest of the Soviet Press*, Vol XIII, No. 32. 13. dlib-eastview-com.unr.idm.oclc.org.

¹⁶² "Speech by Comrade G.S. Titov, USSR Cosmonaut, Moscow Province Party Organization" (*Pravda*, Oct. 28. 6. *Izvestia*. 5). *The Current Digest of the Soviet Union*, Vol. XIV, No. 5. 24. dlib-eastview-com.unr.idm.oclc.org.

space has just begun” and “before us lie new and more complex journeys.” Titov noted that he and Yuri Gagarin were called “celestial brothers” by Khrushchev and they called him their “space father.” The use of space imagery continued, and the Soviet people were to expect more accomplishments in the realm of interplanetary travel.

The flight of Valentina Tereshkova, the first woman cosmonaut, occurred on June 18, 1963. The importance of Tereshkova’s flight was described in the article “We are Domesticating the Universe.”¹⁶³ The author, Academician V. Purin, believed that Tereshkova’s venture into space was the logical next step after the flights of cosmonauts Gagarin and Titov. The men served the purpose of “adjusting to space” but Tereshkova’s flight was about changing “to a process of domesticating it.” Purin said, “We are going to domesticate space as we are domesticating the harsh North, the impassable taiga and the Central Asian deserts, by building cities and settlements.” He assured readers that women were capable of building cities and settlements in outer space, because “in our everyday life, women often bear a bigger physical load in the family than men, where the occupational activity” is the same or similar. Readers were assured that women could propagate the human race, since neither men nor women’s reproductive functions were harmed by space flight. Thus, Tereshkova’s flight signified that interplanetary travel for the purpose of settling the cosmos was realistic.

At the end of 1963, *Izvestia* editors held a Q&A session with the Chief Designer of Soviet space craft about the field of satellite research and what the future of

¹⁶³ “We are Domesticating the Universe” (By V. Parin, member of the U.S.S.R. Academy of Medical Sciences. *Izvestia*, June 18. 3). *The Current Digest of the Soviet Press*, Vol. XV, No. 24. 19. dlib-eastview-com.unr.idm.oclc.org.

cosmonautics looked like.¹⁶⁴ The Chief Designer advised that international cooperation in satellite research was “a coordinated plan for the scientific exploration of cosmic space.” Within 3 to 5 years, the Chief Designer believed nearby space would “be widely used for practical purposes.” This included studying the Sun and Earth, forecasting weather, and learning about the effects of radiation. He also said that “new developments in the use of space” would allow for “rapid delivery of postal and commercial freight, and later, for passenger transportation.” He suggested that space transportation would become as reliable as aviation transport.

When asked if Academician M. Keldysh was being realistic about creating “a spaceship in which people will cruise on their days off as they now cruise in launches along the Moscow River” the Chief Designer said Keldysh’s “utterance was wholly true, and not merely a witticism.” He thought that “not-too-distant Soviet scientists, engineers and workers” would figure out how to make it a reality. He said, “And why not...use space for its basic purpose, which from our point of view is the most far-ranging and unfettered flights?” Indeed, the Chief Designer said, “many comrades will visit space in the next five years. The most pleasant of such flights will be the tourist excursion flights. Without question, they will take place!” There is no doubt that the state-managed Soviet space program reinforced the mythology of interplanetary travel. Interplanetary travel was a public goal, and the people were educated and encouraged to believe it would happen in their lifetime.

¹⁶⁴ It was not public knowledge that the Chief Designer was Sergei Korolev.

The next big event happened in March 1965 when Alexey Leonov became the first man to exit a spacecraft directly into space. *Pravda* reported on the new Soviet leader Leonid Brezhnev's response on March 19, 1965.¹⁶⁵ Brezhnev said, "Mankind is experiencing an exciting moment. For the first time man has boldly and literally opened the door to the universe. He has stepped out of a spaceship into space." The same issue of *Pravda* also included the article "Man in Space Suit Over Planet"¹⁶⁶ which comprehensively explained how a space suit worked, as "space suits...have paramount importance for present and future space research." So, Leonov's excursion was not portrayed as a singular experience. In fact, the author said, "this type of space suit is more promising for extended work in space and for excursions on the surface of the moon and planets."

Later in March 1965, a press conference about the first spacewalk was held at Moscow State University. Academician M.V. Keldysh's opening remarks were published in the *Pravda* article "A new Era in the Conquest of Space."¹⁶⁷ Keldysh said venturing safely and directly into space had been one of the "cardinal tasks" whose solution opened "up great new possibilities for carrying out future manned space flights to the moon and other heavenly bodies and for creating habitable interplanetary stations." In other words, figuring out the life-preserving qualities of the spacesuit meant that their long-term goals for interplanetary travel were closer to fruition.

¹⁶⁵ "C.P.S.U. and Soviet Government Leaders Talk with Crew of Spaceship Voshkod-2" (*Pravda*, March 19. 1) *The Current Digest of the Soviet Press*, Vol. XVII, No. 11. 7. dlib-eastview-com.unr.idm.oclc.org.

¹⁶⁶ "Man in Space Suit Over Planet" (*Pravda*, March 19. 3). *The Current Digest of the Soviet Press*, Vol. XVII, No. 11. 7-8. dlib-eastview-com.unr.idm.oclc.org.

¹⁶⁷ "New Era in the Conquest of Space" (*Pravda*, March 27. 5). *The Current Digest of the Soviet Press*, Vol. XVII, No. 13. 19. dlib-eastview-com.unr.idm.oclc.org.

Cosmonaut Leonov himself said, “excursions outside the ship into open space are entirely possible and now are nothing mysterious for man.” Leonov believed that “a man in a special suit can ...perform definite purposeful and coordinated operations” and “carry out work of a physical nature.” This was a good thing, because Keldysh signaled that building space stations was next on the agenda. He said there were “magnificent new prospects...for creating orbital stations, for linking spaceships in orbit” and for creating “an orbiting cosmic research institute, where scientists of the most diverse specialties will be able to live and work.”¹⁶⁸ To the readers of *Pravda* and *Izvestia*, it must have seemed like everything that interplanetary space mythology had predicted was going to come true, since so many things had already done so.

By the tenth anniversary of the *Sputnik I* launch in 1967, the Soviet space program had suffered cosmonaut deaths and various setbacks and failures. Even so, Academician L. Sedov confirmed that interplanetary travel was still on the agenda in the article “Tenth Anniversary of the Space Age.”¹⁶⁹ Before he described the highs and the lows of the first decade of Soviet space missions he said, “We are proud of the fact that the fantasies and dreams that were nurtured by people for thousands of years have been transformed into reality.” He argued that “mankind’s relation to the universe assumed a qualitatively new character: Science passed from the passive contemplation of outer space to the active investigation of it.” Additionally, he said that “the flights of Soviet and American cosmonauts have shown that man...can make interplanetary voyages.” Again, the suggestion for “permanent manned orbital stations for research” was

¹⁶⁸ Ibid.

¹⁶⁹ “Tenth Anniversary of the Space Age.” (*Izvestia*, Sept. 28. 5). *The Current Digest of the Soviet Press*, Vol. XIX, No. 39. 29. dlib-eastview-com.unr.idm.oclc.org

presented, but Sedov said they still had many “complex scientific and technological tasks” to do before space stations were built.

In a sense, then, Sedov’s next comments reformulate and refine the mythology. He said that the new tasks were “ensuring prolonged stays in spacecraft by cosmonauts, soft landing on other planets and safe returns from interplanetary space to earth.” They were also going to need “the creation of new power systems for space rockets” based on “new achievements in physics.” Sedov then closes the loop of Soviet space mythology by tying Tsiolkovsky’s original rocket research to the work of their Chief Designer S. Korolev, who was so integral to the start of the space age.

The following year, 1968, another step on the path to interplanetary travel was highlighted in the article “Space Pilotage.”¹⁷⁰ The Soyuz 2 and Soyuz 3 were manually maneuvered into a rendezvous orbit, described by Academician A. Blagonravov, who said “as cosmonautics comes of age, the tasks it has to solve become more complex” because “heavier and heavier spaceships will leave on long voyages to the planets.” He explained that orbiting space stations would have to be assembled in parts, and that “manual guidance of rendezvous between space apparatus...in orbits close to one another” was a vital part of building a space station. Again, the space stations were needed for interplanetary travel.

The focus on building space stations continued in 1969. Engineer Yu. Zonov reminded readers of the origins and purpose of the space program in the article “Manned

¹⁷⁰ *The Current Digest of the Soviet Press*, Vol. XX, No. 43, 29. Nov. 13, 1968. dlib-eastview-com.unr.idm.oclc.org.

Space Stations.”¹⁷¹ He said, “the establishment of manned space stations stems logically from the whole development of terrestrial and outer space.” He reminded readers that “K.E. Tsiolkovsky brilliantly prophesied the role that extraterrestrial manned stations would play...in penetrating outer space.” The space stations would be the training and launching point of cosmonaut “flights of several years length to other planets in the solar system.” Clearly, the old mythology of interplanetary travel was alive and well.

The final article “Steps in Space” covers a press conference on November 4th, 1969 regarding the October group flight of Soyuz-6, Soyuz-7 and Soyuz-8.¹⁷² The journalists asked the cosmonauts and assembled scientists how and when the orbiting space stations would make their appearance. The mission that was just completed was a testing ground that demonstrated how multiple ships could maneuver and dock together in orbit. So, the reporters wanted to know when the real space stations were going to be built. Academician Keldysh said, “An orbital space station in operation for a long period of time or a permanent orbital space state may appear in a few years.” One reporter also asked, “Do you think that space will soon be accessible to everyone?” Cosmonaut V.A. Shatalov responded, “It will probably be some time before we build rest homes and sanitariums in space” but “the circle of people studying and mastering space will expand in the not too distant future.” When asked about traveling to the moon, Keldysh said, “Will we travel to the moon and the other planets of the solar system in the future? Yes,

¹⁷¹ “Manned Space Stations” (*Pravda*, Jan. 17. 3). *The Current Digest of the Soviet Press*, Vol. XXI, No. 3. 5. dlib-eastview-com.unr.idm.oclc.org.

¹⁷² “Manned Space Flight” (*Pravda*, Nov. 6. 3). *The Current Digest of the Soviet Press*, Vol. XXI, No. 45. 24. dlib-eastview-com.unr.idm.oclc.org.

we will, because interplanetary journeys are one of the future goals of the conquest of space.”

In conclusion, this chapter shows that Soviet newspapers regularly participated in the dissemination of space mythology. It also shows that Russians had a long history of dreaming and planning to travel the cosmos. Interplanetary travel mythology was evident in 18th and 19th century Russian literature, and was integral to the space fad of the 1920s and 1930s. The Bolsheviks also adapted the utopianism of interplanetary travel into their technological utopianism. Once space travel became a reality in 1957, interplanetary travel mythology was fully embraced in the Soviet Union, and was refined and reformulated during the 1960s as the complexities of space travel became evident.

One of the main points of contact that the Soviet public had with space mythology was through official news and authoritative educational sources found in widely-read *Pravda* and *Izvestia* newspapers, among others. This should not come as a surprise since space mythology was also integral to the 1961 Party Program, and was included in official commemorative memorabilia, museums, exhibits and bibliographies. The public also collected unofficial memorabilia and read about the future implications of space travel in their beloved popular science journals. In fact, interplanetary space mythology was all around the Soviet people and they regularly consumed the myth that helped them explain their national and personal place in the world. The Soviet government thus provided a very clear picture of the purpose of the space program: interplanetary travel was soon to be accessed by everyone.

Chapter 3 - American Space Mythology: Frontier Expansion

The Frontier Myth in the Twentieth Century

This chapter reviews the twentieth century American discourse of national space mythology.¹⁷³ John F. Kennedy invoked the American Frontier during his speeches about the space program, and thereby established the twentieth century rhetorical tradition that entwined America's mythological national identity with expansion into outer space. However, American frontier mythology has been widely contested by twentieth century historians.

In *Myth in American History*, historians Patrick Gerster and Nicholas Cords hold a more pessimistic view of the general role of mythology than sociologists Barner-Barry and Hody, although Gerster and Cords similarly believe that “the making of myths is a twofold process by which a culture orders its world” and that “myths have a real existence in the minds of their believers and thus are psychologically true” even if they are factually false.¹⁷⁴ Even so, Gerster and Cords explain that ideas about the American frontier and “errors in understanding came to be accepted and inspired the actions of individuals and the American nation.” So, it is still acceptable to explore what the frontier means because “the use of mythology as a tool for analyzing America's past brings a better understanding of the complex, and at times, contradictory, affairs of the nation.”¹⁷⁵

¹⁷³ Barner-Barry and Hody's theoretical model about the interplay of mythology in public, national and private life is here applied to highlight the existence of mythology in the 20th century American space program.

¹⁷⁴ Patrick Gerster and Nicholas Cords, *Myth in American History* (Encino, CA: Glencoe Press.) 1977. Introduction, xiii.

¹⁷⁵ Gerster and Cords, *Myth*, xiv.

In their discussion of postwar America, Gerster and Cords say that President Kennedy helped “Americans to hear echoes of their legendary past” which “built upon the elaborate mythology of the frontier and American destiny to create a delightful dream of fulfillment for the nation.¹⁷⁶ Gerster and Cords describe how Manifest Destiny was used to justify expansion as a “mission of regeneration,” as a matter of “national interest,” as necessary for “self-defense,” and as part of the responsibility for “world leadership.” Kennedy recalled those 19th century arguments about ‘Manifest Destiny’ and America’s “natural right to engage in expansionist activities” during the twentieth century¹⁷⁷ which he applied to the nascent space program. It followed that the frontier of outer space became a matter of national interest. Since Kennedy’s moon-shot speeches connected the national identity to the mythology of the American Frontier, this essay argues that the American Frontier was the foundational myth of the American space program.

Frontier mythology was pervasive in twentieth century culture, which is the topic of Richard White and Patricia Nelson Limerick’s book *The Frontier in American Culture*.¹⁷⁸ Limerick says that no matter how historians define and deconstruct frontier mythology, “in popular culture it carries a persistently happy affect, a tone of adventure, heroism, and even fun” which contrasts with “the tough, complicated and sometimes bloody and brutal realities of conquest” that actually took place during westward

¹⁷⁶ Ibid., 246.

¹⁷⁷ Ibid., 105.

¹⁷⁸ Richard White and Patricia Nelson Limerick. *The Frontier in American Culture* (University of California Press, 1994).

expansion.¹⁷⁹ Limerick encourages the reader to “Look wherever you like—Frontierland, newspaper headlines, book titles, politicians’ speeches, promotional literature for the National Aeronautics and Space Administration” because “it is perfectly evident that the public has a very clear understanding of the word “frontier,” even as twentieth century historians struggled to define the frontier’s relevance. Instead of despairing over the historiographical battles about the frontier, Limerick said it was more productive to review “the habits of mind that cluster around the word ‘frontier’ in the late-twentieth century popular culture”¹⁸⁰ in order to understand how frontier mythology resonates with the public.

Limerick broke her review into three categories: presidential politics, news headlines, and science. Presidential politics are especially effective with the frontier analogy because of the myth’s “persuasive powers” and “particular styles of presentation at particular times.” For example, in Kennedy’s retelling of “the familiar Turnerian story of westward expansion” he offered “an image of the New Frontier, premised on the assumption that the campaigns of the Old Frontier had been successful and morally justified.”¹⁸¹ Fortunately for Kennedy, his reformulation of the frontier mythology was morally justified, because as Barner-Barry and Hody point out, “we believe the values in myths are right and proper, we use myths as guides for our own attitudes and behavior.” We even “feel virtuous about doing so.”¹⁸² By tying the space program to the frontier, President Kennedy gave it traditional frontier values that the public could already relate

¹⁷⁹ White and Limerick. *The Frontier in American Culture*. 75. Limerick’s essay title is “The Adventures of the Frontier in the Twentieth Century.” Citations are from Limerick’s essay.

¹⁸⁰ *Ibid.*, 80.

¹⁸¹ *Ibid.*, 80-81.

¹⁸² Barner-Barry and Hody, 610.

to. Additionally, under Barner-Barry and Hody's definition, Kennedy's use of frontier mythology was a practical maneuver, because "in the case of political myths, that purpose can be social control through the mechanism of persuasion."¹⁸³ Thus, Kennedy also politicized the frontier of outer space to control the public response to the space program, and he anticipated that the American public would agree that expanding the frontier into outer space was virtuous; the right thing to do.

In a discussion of newspaper headlines, Limerick explains that "frontier" and "pioneer" are significant words in the lexicon of American mythology because they "convey big meanings" and "carry the master key to the reader's mind; with that key, they can slip into the mind and deposit their meanings before anyone quite knows that they are there."¹⁸⁴ Many of the headlines that Limerick studied were about the new frontiers of twentieth century science and technology in transportation, rockets and spacecraft, communications and information, medicine, and weaponry.¹⁸⁵ Limerick argues that the American public has "genuinely and completely accepted, ratified, and bought the notion that the American frontiering spirit...made a definitive relocation—from territorial expansion to technological and commercial expansion." In her estimation, "the space program has provided the best example as "the nation's most committed and persistent users of the frontier analogy."¹⁸⁶ Thus, the twentieth century space program was the most important conduit of frontier mythology.

¹⁸³ *Ibid.*, 612.

¹⁸⁴ White and Limerick, 85-86.

¹⁸⁵ *Ibid.*, 88.

¹⁸⁶ *Ibid.*

Indeed, frontier mythology was ever-present. Limerick's research about "the habits of mind that cluster around the word 'frontier' in late-twentieth century popular culture" made her see frontier mythology as "a mental artifact" that has "an astonishing stickiness and persistence" because "it attaches itself to everything." However, this was a positive attribute for the sake of public life because the public's "image of the frontier is...laden with positive associations" and "works as a cultural glue—a mental and emotional fastener that...works to hold us together."¹⁸⁷ As Barner-Barry and Hody have explained, myths "make life's event easier to grasp, and perhaps, accept" and they "help us to understand ourselves and our place in the world." With regard to Limerick's assessment of the technological frontiers, the mythology "provides a sense of self, wholeness, and importance that cold, scientific, technological thought simply cannot supply."¹⁸⁸ This suggests that Americans might not have embraced twentieth century space science and technology to the degree that they did if it had been presented without the meaning that frontier mythology supplied.

In *Future West: Utopia and Apocalypse in Frontier Science Fiction* historian William H. Katerberg writes, "Frontier mythology is a core element in American culture and the nation's self-identity. It has long played a legitimizing role...in the name of personal profit and national progress."¹⁸⁹ Katerberg recognizes the function of imagination in mythological discourse. He says, "Mythic narratives insure the desires themselves and lead people to dream of what might be."¹⁹⁰ Katerberg also explains why

¹⁸⁷ Ibid., 94.

¹⁸⁸ Barner-Barry and Hody, 610-613.

¹⁸⁹ William H. Katerberg, *Future West: Utopia and Apocalypse in Frontier Science Fiction* (Lawrence, KS: University Press of Kansas, Lawrence, Kansas, 2008). 9.

¹⁹⁰ Katerberg, *Future West*, 11.

space frontier science fiction is so prevalent in American culture. He says, “It is no accident that frontier stories set in outer space are...so readily comprehensible to Americans. Space stations, the moon, Mars and distant planets allow the frontier-style challenges that once defined America to be replayed.”¹⁹¹ Thus, science fiction that expands the American frontier via space conquest may functionally sustain and reinforce national space mythology. Maintaining the connection between frontier mythology and the national space program also requires advocacy.

Frontier Mythology and Space Advocacy

Communications researcher Linda Billings views the frontier narrative as an “ideology of “Americanism” and examines how “space advocacy movements and initiatives have interpreted and deployed the values and beliefs sustained by this national narrative” in her contribution to *Societal Impact of Spaceflight*.¹⁹² Billings says that the “history of spaceflight advocacy reveals an ideology of spaceflight” based on “a durable American cultural narrative—a national mythology—of frontier pioneering, continual progress, manifest destiny, free enterprise, rugged individualism, and a right to life without limits.” Billings interprets the “rhetoric of spaceflight advocacy” via anthropologist Clifford Geertz’s definition of culture and James Carey’s communication theory that culture is “a rhetorical construction...whereby reality is created, maintained and transformed” through “ritualized communications practices.”¹⁹³ Thus, when

¹⁹¹ Ibid., 23.

¹⁹² Linda Billings, “Overview: Ideology, Advocacy, and Spaceflight—Evolution of a Cultural Narrative,” ed. Steven J. Dick and Roger D. Launius, in *Societal Impact of Spaceflight* (Washington, D.C.: NASA History Division, 2007). 483.

¹⁹³ Billings, “Overview,” 484.

spaceflight advocates deploy the ideology and rhetorical practices of frontier mythology to gain support, they are “performing ritual incantations of a national myth, repeating a cultural narrative that affirms what America and Americans are like and are meant to do.”¹⁹⁴ The urge to explore the space frontier is also described as a moral choice, a biological necessity and as the expression of American exceptionalism and manifest destiny.¹⁹⁵ The main point of spaceflight advocacy is to affirm that it is natural for America to expand its frontier into outer space.

Dissatisfaction with Space Frontier Mythology

Linda Billings notes that spaceflight advocates rely on the idea that “outer space” is “a place of wide-open spaces and limitless resources” where “pioneering, homesteading, claim-staking, and taming” can take place.¹⁹⁶ Billings seems to be critical of frontier mythology because she says that space advocates “cling to the frontier metaphor” and abuse the metaphor in their ideology and rhetoric. She cites historian of the American West, Richard Slotkin, as being critical of the frontier myth. She quotes historian Patricia Limerick who says that space advocates “have built their plans on a deeply flawed understanding of the past” that will distort the views of what is possible in the future.¹⁹⁷ There is clearly a strand of dissatisfaction in the historiography of American frontier mythology.

¹⁹⁴ *Ibid.*, 485.

¹⁹⁵ *Ibid.*, 487-489.

¹⁹⁶ *Ibid.*, 486.

¹⁹⁷ *Ibid.*, 487.

On the other hand, space historian Roger Launius calls the “rich ideological power” of Turner’s frontier thesis and its adoption by spaceflight advocates one of the motivations for “why humanity seeks to fly into space.”¹⁹⁸ Spaceflight advocates believe that “an integral part of human nature is a desire for discovery and understanding” and to “explore, to learn, and to absorb new knowledge and territories into the human experience.” So, expanding into the space frontier “is the next logical step.” In this way, human nature and frontier mythology are melded into a uniquely American outlook. As Launius sees it, Turner “insisted that the frontier made Americans American...and ensured the virtues of self-reliance, community, and the promise of justice...virtually every positive quality they have ever possessed.” For Launius, it is the “repeated use of the frontier analogy, with its vision of a new land and a new and better society” that “has given the American public a distinctive perspective on spacefaring.” Launius recognizes that “Americans have always responded well to their frontiers.”¹⁹⁹ But Launius is also skeptical of Turner’s interpretation of American history.

Launius recognizes that “the frontier ideal reduced the complexity” of westward expansion “to a static morality play” in which pioneers are “inherently good and their opponents” are evil. He explains that Turner’s portrayal of the frontier is “evocative” and “a romantic popular theme” that “calls upon the adventurousness of the American people” who want to move into space to “remake society.” He also hints at the danger of using such advocacy when he refers to frontier myth as a “siren call.”²⁰⁰ Furthermore, he

¹⁹⁸ Roger D. Launius, "Compelling Rationales for Spaceflight? History and the Search for Relevance," in *Critical Issues in the History of Spaceflight*, ed. Steven J. Dick and Roger D. Launius. (Washington, D.C.: NASA History Division, 2006). 37.

¹⁹⁹ Launius. "Compelling Rationales," 44-45.

²⁰⁰ *Ibid.*, 45-46.

concedes that invoking Turner “has become counterproductive” in a “postmodern multicultural society” because Turner’s approach is “excessively ethnocentric, nationalistic, and somewhat jingoistic.” The frontier thesis also “excludes more than it covers” and fails “to do justice to diverse western people and events.” Finally, the frontier thesis is “unsuitable as a guide for understanding the present or projecting the future.”²⁰¹ Clearly, there is a pattern in the literature of identifying and then devaluing frontier mythology’s relevance in twentieth century space efforts.

Space advocates, policy makers and the public access and respond to positive qualities of frontier mythology; but some academics believe frontier mythology is a faulty touchstone for interpreting twentieth century history. In other words, most of the academic critiques of American frontier mythology argue that the mythology does not reflect what really happened on the American Frontier. The negative critiques of frontier mythology are problematic because they obscure the purpose of mythology in national life. Mythology is not effective because it accurately reflects reality; it is effective because it represents values that people hold dear. Barner-Barry and Hody write that “the truth or falsity of a myth is not what gives it its psychological persuasiveness” because “most myths about the modern world are a combination of fact and fiction. What is important is that people internalize the myths and their values.”²⁰² By focusing on the dissonance between fact and fiction in frontier mythology, historians may inadvertently delegitimize values that are still part of American culture.

²⁰¹ Launius, "Compelling Rationales," 47.

²⁰² Barner-Barry and Hody, 610.

Astronaut as Frontier Hero

One of the most enduring representations of American space frontier mythology is the astronaut.²⁰³ The mythologization of the American astronaut is similar to the mythologization of the Soviet cosmonaut discussed in Chapter 2. Both countries viewed their space men as national heroes who embodied specific values and belief systems. The cosmonaut myth was built on the values of the New Soviet Man, and the American astronaut was imbued with 1950s and 1960s-era reformulated frontier values. At a conference for the 30th anniversary of Project Apollo, space historian Roger D. Launius suggested that astronaut mythology was more prevalent than actual memories about the Apollo program.²⁰⁴ Like Barner-Barry and Hody, Launius views myths as “essential truths for the members of a cultural group who hold them, enact them or perceive them.” They could be expressed in “diffuse ideologies” or “embedded in historical narratives” such as the American memory of the Apollo experience.²⁰⁵ Over time, myths tend to be what is remembered the longest.

Launius suggests that when NASA realized that the public viewed the astronauts as celebrities, they tried to portray “the seven astronauts as embodiments of the leading virtues of American culture” which meant they were “brave, God-fearing, patriotic individuals with loving wives and children.” But there was more to the myth-making of

²⁰³ For example, one only has to view the film *The Martian* for an example of how astronaut mythology has been reinterpreted for the twenty-first century. *The Martian*, directed by Ridley Scott. (2015; Twentieth Century Fox), Film.

²⁰⁴ Roger D. Launius. “Apollo Thirtieth Anniversary: Two Views. Part 2: Project Apollo in American Memory and Myth. 521-537. eds. Winter, Frank H., and Donald C. Elder. *History of Rocketry and Astronautics: Proceedings of the Thirty-Third History Symposium of the International Academy of Astronautics*: Amsterdam, the Netherlands, 1999. San Diego, Calif.: Published for the American Astronautical Society by Univelt, Inc., 2007.

²⁰⁵ Roger D. Launius. “Apollo Thirtieth Anniversary,” 524.

astronauts than the expression of American values. Launius writes that the astronauts “appeared at a time when NASA desperately needed to inspire public trust in its ability” to fulfill the Apollo mission.²⁰⁶ The birth of the astronaut myth makes sense in light of Barner-Barry and Hody’s description of the practical function of mythology, which is “social control through the mechanism of persuasion.”²⁰⁷ Thus, NASA officials hoped that the American public was persuaded of Apollo’s future success because astronauts reflected American values and were “virtuous and heroic.”²⁰⁸ Historians have also deconstructed astronaut mythology to show that astronauts were not simply the clean-cut, virtuous, family men that popular culture and national memory portrayed them to be.²⁰⁹ Focusing on the differences between myth and reality could potentially obscure the purpose of mythology in the national consciousness.

NASA’s Complicated Relationship with the American Press

At this point it is helpful to recall historian Asif Siddiqi’s suggestion regarding the social history of space technology. He suggests that there is still work to be done on “public enthusiasm for the space program, mass campaigns in support of space exploration, and popular participation in programs usually identified with state-centered institutions.”²¹⁰ In America, the public consumed information about astronauts from popular magazines and newspapers. Americans learned about the astronauts and their

²⁰⁶ Ibid., 532.

²⁰⁷ Barner-Barry and Hody, 612.

²⁰⁸ Roger D. Launius. “Apollo Thirtieth Anniversary,” 532.

²⁰⁹ See Matthew H. Hersch, “Return of the Lost Spaceman: Americas Astronauts in Popular Culture, 1959-2006,” *The Journal of Popular Culture* 44, no. 1 (2011):73-92, doi:10.1111/j.1540-5931.2010.00820. Also, see journalist Tom Wolfe’s non-fiction novel, *The Right Stuff* (1979). Farrar, Straus and Giroux.

²¹⁰ Siddiqi, “Competing Technologies,” 439.

families by regularly reading articles about them in LIFE magazine. The representation of Americas heroes in LIFE magazine is one example of “how and where...producers of the space program interact” with the general public.²¹¹ NASA directly hired LIFE magazine to present the astronauts’ life stories to the reading public.

In fact, NASA made the decision to move the astronaut publicity function away from the straight news function of its internal Public Affairs office because the agency did not view publicity as their responsibility. The outcome of this policy was that much of the newspaper reading public was separated from the realities of astronaut life, and instead consumed a mythologized portrayal of the astronauts in popular journals. Ironically, if NASA had not pushed for this separation from the beginning, the frontier values associated with the astronauts might have been excluded from the space-age narrative. If publicity had been left up to NASA, the public might not have found the astronauts relatable, and by association might have been less interested in the space program itself.

The Early Days of NASA News Operations

Historian Jennifer Rudeseal Carter’s dissertation explains how NASA’s media protocols influenced the content and style of news that the public consumed about the United States’ first astronauts from 1959 to 1963, the early days of NASA’s public affairs office.²¹² Carter’s work is instructive because it shows how NASA officials allowed

²¹¹ Ibid., 440.

²¹² Jennifer Rudeseal Carter, *View from the Birdwatch: Media, Memory, and America’s Mercury Astronauts*, PhD diss., University of Southern Mississippi, 1996 (Ann Arbor, MI: UMI Company, 1997), accessed June 2016, <http://unr.idm.oclc.org/login?url=https://search-proquest-com.unr.idm.oclc.org/docview/304305689?accountid=452>. 5.

external media outlets to shape the image of the astronauts. At the same time, the NASA Public Affairs office was more concerned with disseminating accurate information about the space program's technical operations to the American public.

For example, the first head of Public Affairs, Walter Bonney, made it clear that the office was to "provide for the widest practicable and appropriate dissemination of information concerning its activities"²¹³ and to "maintain a positive information program" to give Americans "maximum information about the agency's accomplishments."²¹⁴ As an internal news agency, the NASA field specialist reporters were supposed to be "current with the research, development, and operational programs of NASA" so that they could provide content to "the general press, trade press, radio, television, magazine and writers of non-technical books about space."²¹⁵ Carter cites a memorandum written by Bonney in 1959 that justifies the separation of publicity and news. Bonney wrote that "the distinction between publicity and public information must be kept constantly in mind." Bonney argued that "[p]ublicity to manipulate or "sell" facts...or personality to create a favorable public impression, has no place in the NASA program." Instead, the NASA journalists were to give the general media outlets "unvarnished facts...promptly" even if the news was unfavorable.²¹⁶

Carter suggests that Bonney may have viewed the LIFE contract as a necessity because the astronauts' personal life stories were not "public information" but were

²¹³ "National Aeronautics and Space Act of 1958," Public Law #85-568, 72 Stat., 426. Signed by the President on July 29, 1958, Record Group 255, National Archives and Records Administration, Washington, D.C.; available in NASA Historical Reference Collection, History Office, NASA Headquarters, Washington, D.C. <https://www.hq.nasa.gov/office/pao/History/spaceact.html>.

²¹⁴ Carter, *View from the Birdwatch*, 52.

²¹⁵ Carter, 53-54.

²¹⁶ *Ibid.*, 66.

“feature stories” that required more of a “sell.”²¹⁷ On the one hand, Bonney wanted his field specialist reporters to give accurate information to the public, and on the other, he arranged for astronauts to tell their life stories separately from NASA’s focus on the program itself. Even though Bonney seems to have believed he was doing the right thing, the separation between news and publicity proved controversial throughout the Mercury and Apollo programs because the compensation of the astronauts, who were members of the military, was heavily critiqued.²¹⁸ This problem was also discussed by journalist Robert Sherrod in 1973, so apparently it was a contentious practice for over a decade.

War journalist Robert Sherrod provides a journalistic behind-the-scenes history of how the LIFE contract impacted astronauts and journalists in “Selling the Astronauts.”²¹⁹ He was assigned to improve the LIFE magazine content about the new 1967 astronaut crew, after an electrical fire had killed the original Apollo I crew. Sherrod spent a couple of months observing Walter Schirra, Walter Cunningham, and Donn Eisele’s private family activities and joint recreational activities. LIFE magazine was present at every activity to take pictures and conduct interviews. Sherrod concluded that the “famous young men were doing handsprings for Life because they were being paid for it.” However, “[t]hey were inaccessible to other media except on “official” occasions such as press conferences.” Additionally, Sherrod said his work on the project amounted to a “picture story” in which “the astronauts came out, as usual, deodorized, plasticized, and homogenized without anybody quite intending it that way.” He said the image wasn’t a

²¹⁷ Ibid., 65.

²¹⁸ Ibid., 72-79.

²¹⁹ Robert Sherrod. “The Selling of the Astronauts.” *Columbia Journalism Review* May/June (1973): 16-25. Accessed July 2017. Jstor.

result of NASA's censorship, but was caused by LIFE magazine's desire to make the astronauts look good.²²⁰ Sherrod seems to represent the 1960s journalistic concerns about governmental interaction with publicity, since the NASA news office was ultimately responsible for allowing an inaccurate portrayal of the astronauts by LIFE Magazine.

On top of that issue, some members of the press "deeply resented" NASA because of the exclusivity of the LIFE contract. Reporters and journalists believed that the astronauts would share program information in the LIFE magazine articles, but not with the "working press."²²¹ When asked about this possibility at a press conference, astronaut Alan Shepherd defended the contract. He said nothing had really changed and it was still "a national project, and all the technical details" would be "discussed with the newsmen."²²² This is significant because it suggests that the astronauts also separated publicity from technical information, and felt that newspaper reporters and journalists only needed to know and write about the technical details of the space program. Thus, it appears that publicity and its byproduct, the mythologization of the space-age frontier hero, was not accomplished by NASA's Public Affairs office, but was largely entrusted to market-dependent journalists. Since NASA was not producing the mythology about the astronaut, it makes sense that they were also not consumed with reproducing a connection to the frontier.

The "Frontier" in Kennedy Space Center News Releases

²²⁰ Robert Sherrod. "The Selling of the Astronauts." 17.

²²¹ *Ibid.*, 25.

²²² Carter, 77-78.

A text-search of news releases from the 1960s shows that the public affairs office at the Kennedy Space Center rarely referred to themes of frontier mythology. Out of almost 2,000 news releases distributed by the Kennedy Space Center from 1960 to 1969, the “frontier” was only referenced in four documents. The first reference came late in the decade, July 28, 1967, in a news release titled “Artist Records Spaceport Scenes.”²²³ The news was about Theodore Hancock, a nationally known New York watercolor artist, who was commissioned by NASA to document the activity around the launch of Apollo. Hancock viewed the landscape around Kennedy Space Center’s Launchpad 39 and the interior of the Vehicle Assembly Building as “the frontier of the new world.” He compared his work to having a “drawing of Columbus getting aboard the Santa Maria.”²²⁴ Later in 1967 in a news release titled “ESRO Group Studies KSC Launch Operations” NASA explained that the European Space Research Organization was touring the launch facility to plan for future missions. A NASA employee named Don Sheppard said the creation of the ESRO program was “convincing evidence that it is possible for nations... to work together in the common interest of advancing the frontiers of the space sciences.”²²⁵

In 1968, the Kennedy Space Center promoted the merits of professional women scientists and engineers in a news release titled “Petite Engineer Likes Math, Music.”²²⁶ A woman engineer named Cherie Lee explained why she liked working at Kennedy Space

²²³ All of the news releases that follow are located at: “1960-1969 Kennedy News Releases,” NASA 1960-1969 Kennedy News Releases, <https://www.nasa.gov/centers/kennedy/news/releases/1960/index.html>. KSC-328-67. Not all news releases are dated.

²²⁴ KSC-328-67. 2.

²²⁵ KSC-334-67. 3. August 2, 1967.

²²⁶ KSC-344-68. 1. July 18, 1968.

Center. She said the space program was “our biggest frontier...something unknown to explore.” Rocco A. Petrone, NASA’s Director of Launch Operations at the Kennedy Space Center, was awarded an honorary Doctor of Science degree in the spring of 1969 for his decade of work on the space program.²²⁷ The news release reported that “Petrone said that by looking outward and acquiring a new sense of boundless frontiers, man may break the earth free from the cycle of war and peace.”²²⁸ It is noteworthy that these four news releases reference exploration and discovery, some common themes of frontier mythology. They also show that NASA employees accessed frontier mythology in their personal and professional value systems. However, the miniscule number of references to frontier mythology also indicates that the KSC Public Affairs journalists were not particularly concerned with tying the space program to the values and national identity long associated with the traditions of the frontier.

Data Visualization: NASA News vs The New York Times

A related research project accessed a corpus of news releases that were digitally archived by the Kennedy Space Center and the *New York Times* database of digitized newspaper articles.²²⁹ Data visualization tools were used to determine if NASA’s news releases were used by the NYT in 1965. The results show that KSC’s distributed news release stories rarely showed up in the NYT’s news articles. In 1965, the majority of KSC news releases were industry and technology focused, while the majority of NYT articles

²²⁷ KSC-293-69. “KSC Launch Director Rocco Petrone Receives Honorary Doctor’s Degree.” May 26, 1969.

²²⁸ KSC-293-69. 2.

²²⁹ See author’s research conducted for Digital History field/comps portfolio, housed in UNR History Department archive. Supervised by Professor Christopher M. Church, UNR Department of History. “NASA News Missing from Newspaper Journalism.” Dec 16, 2015.

were human interest stories. The results illustrate that the NYT was unresponsive to KSC's news releases.

This research confirms that the Kennedy Space Center Public Affairs office did just what the first Public Affairs official, Walter H. Bonney, originally wanted. The majority of KSC's news releases provided media outlets with the "unvarnished facts."²³⁰ There were 1,882 news releases distributed by KSC from January 1960 to December 1969.²³¹ It is a relevant source to investigate because news releases came directly from internal journalists and reporters at the Kennedy Space Center and show exactly what KSC wanted the public to know about their operations.

Due to time constraints during the semester of research, a data visualization project composed of almost 2,000 documents was not possible; the exercise was restricted to a sample from the middle of the decade. The news releases from 1965 included 61 pages of announcements about industrial contract awards. With the contract announcements set aside, a more relevant picture of topics discussed in the news releases was uncovered.²³² A word cloud for the 1965 news releases follows:

²³⁰ Carter, 66.

²³¹ This does not include news releases for 1962, which are missing from NASA's digital archive.

²³² This project used Voyant Tools for data visualization. (<http://voyant-tools.org>). I applied Taporware stop words, Dr. Christopher Church's list of stop words, and my own list of applicable NASA stop words. Stop words are removed from the report because they are common words that are not topically significant.

KSC discussed employees, personnel and engineers. The moon was a relevant NYT news article topic, but it wasn't mentioned much in the KSC news release topics. The news articles did not focus specifically on the Saturn rockets, vehicles, or the equipment, but they did pay attention to spacecraft in a general sense. The data visualization demonstrates that the KSC and the NYT had distinctly different concepts of newsworthiness. The newspaper seems more interested in the human-interest part of the space program, while KSC was more interested in the technical side. Perhaps the NYT's journalists and reporters were not so intrigued with NASA's straight news approach and so did not find the technological focus compelling. Additionally, these data visualizations show that as a state-centered institution, NASA actually was not involved in disseminating frontier mythology to the press. However, journalists referenced the national mythology on their own.

Space Frontier Discourse in the *New York Times*

It is notable that the previous articles selected for "NASA and spaceflight" did not include references to frontier mythology. However, an additional query of the NYT database between 1958 and 1969 for the terms "frontier" and "space frontier" returned 19 articles.²³⁵ This result shows that some journalists did include frontier mythology in their articles. In the spring of 1958, Robert B. Dechert, the general counsel of the Department of Defense, gave a commencement speech to University of Pennsylvania's graduating

²³⁵ All of the New York Times articles were located online, courtesy of University of Nevada Reno Libraries database of ProQuest Historical Newspapers: The New York Times, <https://search-proquest-com.unr.idm.oclc.org/hnpnewyorktimes/index>. The author notes that keyword searches alone may have limited the sources available for the study. Browsing through every space-related article could have potentially provided additional, relevant sources.

class. He challenged the “bleak view” that there were no new frontiers in the world.”²³⁶

He told the new graduates it would be their job to solve “missile problems and the space exploration” that would follow.

Six months later, atomic energy and science journalist John W. Finney discussed the 1959 fiscal budget of nearly \$5.5 billion.²³⁷ He wrote, “The greatest emphasis” of the budget would be on “civilian and military exploration of the new frontier of space” but that “four-fifths of the research and development program would be directed primarily to military objectives.” The problem of the duality of peaceful and military use of outer space shows up again in another Finney article about “the new military frontier of space” that was responsible for “providing the nation’s strategic striking power and air defense.”²³⁸ Political and social tension over the dual purpose of the space frontier may have weakened the resonance of frontier mythology because newspaper readers were getting mixed messages about frontier expansion, exploration and discovery, and the military use of space.

Later in January, 1959, Finney described how T. Keith Glennan, NASA’s new administrator, viewed the purpose and pace of space science and exploration.²³⁹ Glennan believed there were two main objectives: 1) “the discovery of as much as possible about the new frontier of space...for the sake of scientific knowledge...and practical applications.” 2) “the freeing of man from his terrestrial bonds so that he can go where he

²³⁶ 1-12-1958 NYT. 28. “U of P Class Told of Space Frontier” ProQuest Historical Newspapers: The New York Times.

²³⁷ 1-20-1959 NYT. 21. “Research Plans Set at 5.4 Billion. John W. Finney. ProQuest Historical Newspapers: The New York Times. By John W. Finney.

²³⁸ 4-24-1959 NYT. 10. “Pentagon’s Role on Space Scored: End of its Research Agency and Air Force Priority Urged by Schriever.” ProQuest Historical Newspapers: The New York Times. By John W. Finney.

²³⁹ 1-25-1959 NYT. 1. “Space Agency’s Chief Says U.S. Will Shun Timetable” by John W. Finney.

wants, when he wants, in space.” The first objective shows that frontier mythology was being reformulated to fit the space age. The second objective reinforces the expansionist identity and values that American readers would easily identify with. The next article by Finney, in April 1959, demonstrates that frontier mythology tends to justify its own existence. Finney’s long article about the Discoverer satellite is technologically detailed, educational and includes helpful diagrams.²⁴⁰ At the end Finney explains that “the first phase” of space exploration “was primarily an exploratory survey of the new frontier of space” but that the new objective was “to plot out in greater detail the dimension of the new frontier.” Thus, in Finney’s conception, the purpose of expanding the space frontier is basically to document the size of the frontier.

As Barner-Barry and Hody remind us, national myths help us to “understand ourselves and our place in the world” and can “persuade us to act in certain ways...”²⁴¹ Thus, it is quite possible that a newspaper reader would be persuaded to endorse the enormous national tax burden that journalists described, since the objectives of the space frontier were relatable to the national identity and personal values embodied in frontier mythology. As long as the edges of the new frontier were unreached, the expansion of the new American frontier with all of its practical uses and mythical possibilities, could conceivably continue.

²⁴⁰ 4-19-1959 NYT. E9. “U.S. Space Program Moves to New Phase: Second Generation Experiments Follow Initial Explorations” ProQuest Historical Newspapers: The New York Times. By John W. Finney. It is possible that Finney received an information packet from NASA’s Public Affairs Office about the Discoverer Mission that provided all of the details. See Scott and Jurek’s *Marketing the Moon* for a discussion of NASA’s news agency outreach practices.

²⁴¹ Barner-Barry and Hody, 610.

The frontier was not mentioned again in New York Times articles for nearly two years, after Yuri Gagarin's first man-in-space flight. Journalist John W. Finney returned with the article "Kennedy Pledges Speed Up In Space" on April 26, 1961, less than two weeks after Gagarin's feat.²⁴² Even though President Kennedy had recently approved budget cuts to NASA, Finney wrote that "President Kennedy pledged today his determination to "step up our efforts" for the U.S. to "prevail on the new frontier of space." This included working with Vice President Johnson to "provide the leadership, resources and determination necessary" to "prevail on the newest of man's physical frontiers." It seems as though the country needed to be reminded of the way the space program related to the national identity, and frontier mythology was the way to engage public support for it.

A more skeptical assessment of the space program appears in May, 1961 in Finney's article "The Race In Space Has a Long Way to Go."²⁴³ Finney questions the cost, lack of clarity in space policy and political bickering surrounding the space program, even though Alan Shepard's 15-minute space flight was enthusiastically received by the American public and boosted morale at NASA. Finney again turns to national mythology, as he believes that "the space frontiers" will be "pushed back" to make room for military space activities. Finney also suggests that man would have primacy over machine in the "ultimate exploration of the moon and planets" because

²⁴² 4-26-1961 NYT. 19. "Kennedy Pledges Speed Up in Space" ProQuest Historical Newspapers: The New York Times. By John W. Finney.

²⁴³ 5-7-1961 NYT. E8. "The Race in Space Has a Long Way to Go." ProQuest Historical Newspapers: The New York Times. By John. W. Finney.

experience was needed along with scientific knowledge. In other words, the exploration of space would only be satisfying if men were physically able to inhabit that frontier.

The next article is full of poetic terms of exploration as science journalist John W. Finney embraces frontier mythology in “Astronauts—Adventurers of Space, Elite of Their Age.”²⁴⁴ Finney says the astronauts’ ships will “rocket up from earth to explore the new frontier of space” and that they are “driven by the same motivations that prompted Christopher Columbus...to set out for unknown lands. They face the exciting challenge of exploring a new frontier.” This is also an example of how frontier mythology is reformulated to fit the space age, because Finney says, “the difference is that these space-age explorers are the philosophical products of a technical age” in which new technology helps them conquer the unknown.

By October, 1961, NASA Administrator James E. Webb urged the nation to support an increased size and scope for the space program. He wrote a two-page article that explained why he supported President Kennedy’s moon-shot initiative.²⁴⁵ His five reasons were that America could not afford to lag behind the Soviet Union in space; space research was as important as physics research had been after WWII; the country’s prestige was at stake over the question of science and technology supremacy; the country needed the stimulus, knowledge and products that the space program provided; and earth-satellite technologies would improve communications and weather-forecasting services. Webb quoted Kennedy, who said it would take a “great national effort” for the program

²⁴⁴ 10-8-1961 NYT. M6 ProQuest Historical Newspapers: The New York Times.

²⁴⁵ 10-8-1961 NYT. M1, M22. Into Space. “America’s Role in Space Today: Head of Space Agency Gives Five Reasons Why This Country Must Move to Master Space.” ProQuest Historical Newspapers: The New York Times.

to succeed and that they were “determined that this nation will continue to be a pioneer in the new frontier of space.” The practical purpose of the space program was tied to frontier mythology and thus reaffirmed traditional values and national identity, which in turn suggested that expanding into the space frontier was the right thing to do.

On February 20, 1962, the nation finally had a major space-related achievement to celebrate, the success of American astronaut John Glenn’s *Friendship 7* spaceflight. A ticker-tape parade was given in his honor in New York City on March 1, 1962. That day, the *New York Times* recognized all of the astronauts, the Mercury 7, as “the young pioneers of the space frontier.”²⁴⁶ They were described as having “courage,” “self-discipline” and “dedication.” According to the *New York Times* they were also possessed of “a warm and winning modesty” and possessed “patience” and demonstrated their “resourcefulness in moments of great trial” and had fine conduct “in moments of great triumph.” I suggest that this is an example of the reformulation of the frontier hero mythology in newsprint as it happened during the early years of the space age. In place of the old pioneers conquering the western frontier, astronauts dared venture into the space frontier.

Just over a year-and-a-half later, the space program was criticized again in the article “Bungling in Space.”²⁴⁷ The challenges of the space frontier had changed, and some felt that American space workers were not keeping up with its unique demands. The journalist writes, “it is true that the new frontiers of space...require finer tolerances, better workmanship, novel techniques and processes, and the solution of problems

²⁴⁶ 3-1-1962 NYT. “The Astronauts.” ProQuest Historical Newspapers; The New York Times.

²⁴⁷ 10-8-1963 NYT. “Bungling in Space.” ProQuest Historical Newspapers; The New York Times.

undreamed of a couple of decades ago.” The complaint shows that a chord of dissonance runs through the interconnection between reality and myth. Dissonance can lead to a sense of dissatisfaction with myths that once provided social or cultural value.²⁴⁸ It is obvious that the author is wistful about frontier mythology, but he is also disturbed that the space program isn’t living up to mythological ideals.

In a press conference in March, 1965, President Johnson reminded the press of “the important role that man himself will play in the exploration of the space frontier.”²⁴⁹ A few days later Johnson phoned astronauts Gus Grissom and John Young to congratulate them on their successful Gemini 3 mission.²⁵⁰ He told Grissom, “Your mission, Gus, confirms once again the vital role that man has to play in space exploration, and particularly in the peaceful use of the frontier of space.” In a separate statement Johnson repeated the sentiment. He said, “The historic flight today is a further measure of the unlimited role man has to play in the exploration and peaceful use of the endless frontier of space.” Five months later, upon the return of astronauts Gordon Cooper and Charles Conrad from their 8-day Gemini 5 mission, Johnson trumpeted a familiar refrain.²⁵¹ He said, “You have certainly proved once and for all that man has a place in the exploration of the great frontier of space.” President Johnson continually affirmed

²⁴⁸ Barner-Barry and Hody assert that in order for myths to be effective, they do not have to be true, they just have to be believable, (610). Thus, once myths become unbelievable, they lose their cultural and social capital. The loss of mythical validity might provide a window into a uniquely American dissatisfaction with the civilian space agency.

²⁴⁹ 3-21-1965 NYT. “Transcript of President’s News Conference on Foreign and Domestic Affairs.” P. 70.

²⁵⁰ 3-24-1965 NYT. 1, 22. “Johnson to Grissom: Gus? How Are You?” ProQuest Historical Newspapers: The New York Times.

²⁵¹ 8-20-1965 NYT. 2 Astronauts End 8-Day Flight Tired But in ‘Wonderful Shape’; Johnson Hails U.S. Space Gains.” 1, 16. ProQuest Historical Newspapers: The New York Times.

space frontier mythology as a national touchstone, especially when NASA reached important milestones in its race to the moon.

On December 21, 1968 Apollo 8 launched on a mission to orbit the moon. This was the famous Christmas mission by astronauts Jim Lovell, Frank Borman and William Anders. It was the first time any humans had ever traveled to the vicinity of another planet and it appears to have made an emotional impact on at least one journalist. The author of “Reconnaissance of the Moon”²⁵² called it a “superlative feat of human history” and said that man was “too close to this staggering crossing of the space frontier to grasp the significance” of the accomplishment. However, the author imagined that in the near future there would be “permanent settlements” for “detailed exploration” of the moon; that the moon would “become a steppingstone to the wider vistas of space” and a “launching pad for expeditions to the planets.” The expansion into the space frontier was no longer a fantasy, but was a “sober and reasonable” prospect for the country. The journalist basically expressed a reformulated version of frontier expansion, exploration and settlement that evokes the ideals of the American West.

On September 16, 1969, the astronauts of the historic Apollo 11 mission addressed a joint session of the members of Congress. Buzz Aldrin, Michael Collins and Neil Armstrong all gave brief speeches about the historic moon landing.²⁵³ Neil Armstrong did not specifically mention the frontier, but Michael Collins insisted that “man has always gone where he has been able to go” and believed that “he will continue

²⁵² 12-25-1968 NYT. 30. “Reconnaissance of the Moon” ProQuest Historical Newspapers: The New York Times.

²⁵³ 9-17-1969, NYT. 30. “Transcript of Astronauts’ Addresses to Congress” ProQuest Historical Newspapers: The New York Times.

pushing back his frontiers, no matter how far it carries him from his homeland.” Collins argued that it would have been wrong to halt space missions until national problems were fixed because “such logic two hundred years ago would have prevented expansion westward past the Appalachian Mountains...” Buzz Aldrin tied the whole space program back to the national identity and purpose of the American people. He said, “our steps in space have been a symbol of the American way of life” and that “those footprints belong to the American people.” Aldrin believed “the Apollo lesson is that national goals can be met where there is a strong enough goal to do so.” Both of these astronauts’ speeches revolve around the goals, ideals and values of frontier mythology.

As these newspaper sources have shown, frontier mythology was accessible because it had meaning in twentieth century America and related to national and personal beliefs. Frontier mythology was invoked by NASA administrators and astronauts and was also a familiar theme in political speech. It was an instinctive and perhaps reflexive theme used by journalists and reporters and was regularly consumed by newspaper readers during the first decade of the space race.

Conclusion

This project has shown that the Soviet and American people consumed national space mythology in newspaper articles during the 1960s. However, unlike the state-centered oversight of the Soviet press, American frontier mythology was not exclusively distributed by the state-centered institution, NASA. Frontier mythology was, however, reactivated by President Kennedy, and was reiterated by President Johnson after him. Their speeches were published in newspapers and could also be viewed as the outcome of

state-centered myth-making about the space frontier. However, control of the press's use of the frontier myth is not as significant a factor for the U.S. government as it was for the Soviet government. Even so, similar to the Soviets' use of the mythological themes of interplanetary travel, the American press accessed the mythical touchstone of the space frontier.

The Soviet press provided continuity of space mythology, but there is a fair amount of ambiguity and tension in the 1960s newspaper discourse of American space frontier mythology. In reality, the separation of NASA's news from publicity meant that the government literally handed off the task of national myth-making to external publicists and the free American press. Journalistic concerns over objectivity clashed with NASA's Public Affairs preference for straight news, which meant that journalists may not have found NASA news releases particularly compelling or trustworthy. Since NASA news releases were not very concerned with extolling the virtues of the frontier, journalists had to use their own instincts to write intriguing stories about the national space program. Sometimes journalists reflected on the frontier positively, sometimes they did not. Their ambivalence may explain why the expressions of space frontier mythology in 1960s *New York Times* articles are more like an afterthought than a driving force of discourse. What is more, the American message was not a purpose-driven or cohesive expression of frontier mythology because the press could choose to be objective or interpretive; they were not controlled by the government.

On the other hand, Soviet space mythology was controlled by a strong ideological belief that the press was accountable for directing public life. The Soviet press was an extension of the government, and the government believed that the Soviet person was

properly reflected in the actions and the values of the space program. The official government discourse reiterated that everything the space program accomplished was for the national, public good. Furthermore, the Soviet people potentially trusted the promotion of national space mythology because it was consistent with their utopian traditions. Interplanetary travel was long an important feature of Russian utopian thought. Even during the time of technological utopianism, rocketry research and development absorbed old values and beliefs that were transformed by earthbound ideology. When the space age literally took off in 1957 both nations were free to reformulate their national mythology to fit the circumstances.

By analyzing the selected expressions of national space mythology in newspapers from the period, we see that in both countries the newspaper reader interacted with the producers of the space program directly or indirectly through state-centered agencies associated with the distribution of news. While we cannot know exactly how space mythology motivated a newspaper reader, we do know that space mythology was regularly consumed by them. The steady stream of space mythology had the potential to stir public enthusiasm, prompt mass campaigns, and excite popular participation in space programs in both nations.

Alternatively, perhaps a lack of state-centered journalistic programming in the U.S. contributed to a lack of enthusiasm for the demands that the space program put on the nation. This research could be expanded to search for an explanation for the frustrating phenomena of decades of American disillusionment with NASA. It could also explicate the enduring nostalgia that twenty-first century Russians have for the spacefaring Soviet era. In either case, the news about the space program held a specific

function in twentieth century American and Soviet life. Space news reinforced national mythology and gave readers a way to interpret the meaning of the space age in their lives.

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