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## Chapter 13

# The Space Policy of the Nixon and Ford Administrations: Another Détente Diplomacy through Project Apollo and ASTP\*

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### Abstract

The Apollo–Soyuz Test Project (ASTP) was seen as a symbol of the U.S.–Soviet Union détente of the 1970s. However, does ASTP mean only that? This chapter examines how the Richard M. Nixon and Gerald R. Ford U.S. presidential administrations terminated Project Apollo, decided on the Space Shuttle program, and adopted and implemented ASTP, from the perspective of U.S. détente diplomacy during those periods. The Nixon and Ford administrations pursued not only cooperation, but also competition with the Soviet Union through the Space Shuttle program and ASTP after Project Apollo. Moreover, the space policy of the Nixon and Ford administrations not only followed, but also led U.S. détente diplomacy.

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## Introduction

In July 1975, six years after the lunar landing of Apollo 11, a U.S. Apollo spacecraft succeeded in the first docking with a Soviet Soyuz spacecraft in Earth orbit. In the docked spacecraft, U.S. astronauts and Soviet cosmonauts shook hands and conducted joint experiments, which were broadcast on television. On Earth, U.S. President Ford and Soviet General Secretary Leonid I. Brezhnev exchanged messages of friendship and congratulations. The Apollo–Soyuz Test Project (ASTP) was seen as a symbol of the U.S.–Soviet détente of the 1970s. However, does ASTP mean only that?

It is true that the process by which ASTP was decided on and implemented seemed to overlap the evolution of U.S. détente diplomacy during the Nixon and Ford administrations. In fact, Project Apollo, mainly through competition with the Soviet Union, was terminated while ASTP—as the first major U.S.–Soviet space cooperation—was advanced. However, the reduction of Project Apollo had already begun during the Lyndon B. Johnson presidential administration. In addition, the Dwight D. Eisenhower presidential administration had started to seek U.S.–Soviet space cooperation and the John F. Kennedy and Johnson administrations continued it in earnest. These persistent efforts yielded the fruit known as ASTP during the Nixon and Ford administrations. Even after ASTP was concluded and détente diplomacy began to decline, the Ford administration strove to continue and develop U.S.–Soviet space cooperation. Meanwhile, the Nixon and Ford administrations adopted and developed a new space transportation system, the “Space Shuttle,” to maintain the initiative in space during the post-Apollo period.

Therefore, it could not easily be said that the priority of U.S. space policy changed from competition to cooperation in accordance with its détente policy. From the beginning, the evolution of U.S. space policy was marked by a delicate balance between competition and cooperation—and it was in the 1970s that this dual space policy produced tangible diplomatic results. Concerning the relationship between space and diplomatic policies, the Eisenhower administration, which was influenced by the Sputnik shock, and the Kennedy and Johnson administrations, which advanced Project Apollo, have been relatively well examined. But the Nixon and Ford administrations have not been sufficiently examined, because the related diplomatic documents of those periods were classified. However, some of these documents have been recently declassified.

This chapter examines how the Nixon and Ford administrations terminated Project Apollo, decided on the Space Shuttle program, and adopted and implemented ASTP, from the perspective of U.S. détente diplomacy during those peri-

ods.<sup>1</sup> It makes the most of newly declassified documents and also builds on earlier studies.<sup>2</sup>

First, this chapter reviews how the Nixon administration realized the first human lunar landing and then terminated Project Apollo, while deciding on the Space Shuttle program as the post-Apollo successor. Second, it analyzes why and how the Nixon administration adopted ASTP to pursue U.S.–Soviet space cooperation. Third, it describes how the Nixon and Ford administrations implemented ASTP and tried to continue and develop U.S.–Soviet space cooperation during the declining détente. Finally, this chapter clarifies the reasons why ASTP was realized and what role U.S. space policy played in its détente policy, and re-examines the purposes and meanings of Project Apollo and ASTP during the Cold War of the 1970s.

### **Project Apollo and the Space Shuttle Program**

Richard M. Nixon, who would realize the first human lunar landing, was not an amateur in space policy. After he experienced the Sputnik shock as Vice President in the Eisenhower administration, he held a debate on the “Space Gap” and the “Missile Gap” between the United States and the Soviet Union, with John F. Kennedy in the 1960 presidential election. Again, in the 1968 presidential election, Nixon made some speeches on future U.S. space policy: the importance of U.S.–Soviet space cooperation and the necessity of space budget cuts.<sup>3</sup> In his inaugural address of January 1969, Nixon stressed the promotion of international space cooperation and implied the reduction of space programs to give priority to solving issues on Earth, rather than in outer space, while appreciating that Project Apollo would soon realize the first human lunar landing.<sup>4</sup>

The new Nixon administration took over the main three financial burdens from the former Johnson administration: the Vietnam War, domestic social problems, and Project Apollo. What seemed to be the easiest to reduce among them was the budget for civilian space programs, the National Aeronautics and Space Administration (NASA) budget. As the first human lunar landing was slated for July 1969, the Nixon administration began to draw up its “post-Apollo” programs. In February 1969, President Nixon directed Vice President Spiro T. Agnew to organize the Space Task Group and produce a report on the post-Apollo program. Subsequently, in March of the same year, Nixon appointed Thomas O. Paine, Acting Administrator of NASA, to be Administrator.

The Space Task Group report was submitted to President Nixon in September 1969.<sup>5</sup> The proposed post-Apollo program consisted of the “Space Station,” the “Space Shuttle,” and human Mars expeditions. The Space Station

“would be the basic element of future manned activities in Earth orbit, of continued manned exploration of the Moon, and of manned expeditions to the planets.” The Space Shuttle would provide low-cost transportation between the surface of Earth and a space station in low Earth orbit (LEO). Because the Apollo program to achieve the first human lunar landing was exclusively “of, by, and for” the United States, the report recommended that, in a change of policy, U.S. post-Apollo efforts should be advanced through international participation and cooperation. Following the report, President Nixon and Henry A. Kissinger, Special Assistant to the President for National Security Affairs, directed the Department of State and NASA to create an ad hoc group on international space cooperation, with not only western countries but also the Soviet Union, by issuing the “National Security Study Memorandum (NSSM) 72” in September 1969.<sup>6</sup>

In parallel with the deliberations on the post-Apollo program, NASA was steadily preparing for the first human lunar landing. On 20 July 1969, the United States succeeded in landing Americans on the Moon with Apollo 11, which was launched by a Saturn V rocket. President Nixon called and congratulated the two astronauts, Neil A. Armstrong and Edwin “Buzz” Aldrin, on the lunar surface.



**Figure 13–1:** The longest distance phone call in history. Calling from the White House to the Moon, 20 July 1969. Credit: NASA.

Before the first lunar landing, there was an interesting discussion between the White House and NASA. The issue was whether a U.S. flag should be placed on the Moon. Although there was an idea that a United Nations flag should be placed, a U.S. flag was placed once on the Moon and brought back to Earth in such a way as to symbolize the fact that the American people had reached the Moon, not that the United States took possession of the Moon, which was inconsistent with the Outer Space Treaty.<sup>7</sup> Moreover, the Apollo 11 mission eventually

carried very lightweight flags of every country, which were returned to Earth and presented, along with a small lunar sample, to heads of state. A plaque, inscribed “We Came in Peace for All Mankind,” was attached to the lunar lander and left on the Moon.<sup>8</sup>

Thus, the first human lunar landing became a historic feat, not only of the United States, but also of all humankind and its world. Although the United States was beaten by the Soviet Union in the space races for the first satellite and the first human spaceflight, it succeeded in the first human lunar landing, which was televised all over the world, and restored its initiative in space activities.

When Apollo 11 was launched in July 1969, nine more human lunar landings were scheduled.<sup>9</sup> Apollo 12 to 15 would land at different places and stay longer on the Moon, while Apollo 16 to 20 would take and operate a lunar roving vehicle, to explore more extensively. Until the first human lunar landing was successful, a concrete reduction of Project Apollo was not considered in the Nixon administration. However, the space budget cut would be implemented in the budget-making process for Fiscal Year (FY) 1971. NASA’s budget decreased from \$5.3 billion in FY 1965 (its maximum amount) to \$3.3 billion in FY 1971. Eventually, in September 1970, it was decided that future human lunar landings would be decreased by three, ending the program at Apollo 17.<sup>10</sup>

Another major concern for NASA was the post-Apollo program. During late 1969 and early 1970, NASA Administrator Paine visited Europe, Canada, Australia, and Japan for initial discussions about cooperative opportunities in the U.S. post-Apollo program. The reactions to Paine’s proposals were varied. While Europe and Canada indicated that they were interested in making contributions to the program, Australia and Japan were rather negative.<sup>11</sup>

After Paine’s tour, however, NASA found that the White House and Congress had no intention of approving all the programs recommended by the Space Task Group. Therefore, NASA dropped its hopes for Mars expeditions, and then for the Space Station program, and decided to concentrate on gaining approval for developing a two-stage, fully reusable Space Shuttle as its major program of the 1970s.<sup>12</sup> Even this seemed difficult in the budget-making process for FY 1972. NASA Administrator Paine was very disappointed at the negative attitude of the Nixon administration to space programs, and resigned in September 1970.

In the White House, however, there was one person who thought that these NASA budget cuts went too far. This was Casper W. Weinberger, Deputy Director of the Office of Management and Budget (OMB). In his memorandum for the President of August 1971, he argued that Project Apollo and the Space Shuttle were necessary to maintain superpower status.<sup>13</sup> President Nixon accepted this opinion. However, in the process of deliberation within the U.S. government,

NASA changed the Space Shuttle design to meet Department of Defense (DoD) requirements and the limited budget, thus tasking the Space Shuttle for both civilian and military use. Furthermore, NASA adopted the design of an orbiter with external, expendable hydrogen and oxygen tanks. While this change saved development costs, it also meant that the Space Shuttle would never be truly inexpensive, because costly components would be thrown away with each use.

Thus, President Nixon approved the Space Shuttle as the main post-Apollo program in January 1972, though it was drastically different in design and estimated cost from what NASA had hoped to develop.<sup>14</sup> In addition, because U.S. civilian and military space activities would both rest on the Space Shuttle in the 1980s, the United States decided to develop the Space Shuttle orbiter by itself. However, as Europe and Canada made steady efforts to participate in the U.S. Space Shuttle program, they developed its components, the “Sortie Can,” later renamed “Spacelab,” and the Remote Manipulator System, later named “Canadarm,” respectively.<sup>15</sup>



**Figure 13–2:** President Nixon and NASA Administrator James Fletcher announcing the Space Shuttle as the main post-Apollo program, January 1972. Credit: NASA.

### **Realization of U.S.–Soviet Space Cooperation**

The Nixon administration had been trying to extend international space cooperation, while reducing Project Apollo and deciding on the Space Shuttle. The



cooperation with western countries would be through the Space Shuttle program. On the other hand, the attempt to cooperate with the Soviet Union began with negotiations between NASA and the Soviet Academy of Sciences. These negotiations had been continuing since the Eisenhower administration, for a decade, although they had not yielded any significant fruit. As early as April 1969, NASA Administrator Paine had proposed to Mstislav V. Keldysh, the President of the Soviet Academy of Sciences, to coordinate U.S. and Soviet unmanned planetary programs.<sup>16</sup> Surprisingly, Keldysh responded positively to Paine's proposal in December 1969. A month before, both countries had just begun the Strategic Arms Limitation Talks (SALT). This was a big change on the Soviet side, following the U.S. first human lunar landing.

Seizing this opportunity, President Nixon and his advisor, Kissinger, issued the "National Security Decision Memorandum (NSDM) 70" in July 1970. They directed the Department of State, the Department of Defense, and NASA that space cooperation with the Soviet Union should be pursued simultaneously through high-level diplomatic and technical agency channels, but that, at that moment, a direct approach to Soviet Premier Alexei Kosygin should not be undertaken.<sup>17</sup> NASA Administrator Paine exchanged letters with Keldysh from July to September 1970. Paine proposed a program of docking U.S. and Soviet spacecraft, for the rescue of astronauts in outer space.<sup>18</sup> Keldysh accepted the proposal and invited the U.S. delegation to Moscow for further negotiations.<sup>19</sup> It was the first time that the Soviet side aggressively showed its interest in space cooperation with the United States.

Thus, the negotiations on a docking program of U.S. and Soviet spacecraft started when the U.S. delegation formally visited Moscow for the first time in October 1970.<sup>20</sup> Kissinger told NASA that "as long as you stick to space, do anything you want to do. You are free to commit—in fact, I want you to tell your counterparts in Moscow that the President has sent you on this mission."<sup>21</sup> To support the negotiations, President Nixon stated in his "Second Annual Report to the Congress on United States Foreign Policy" of 25 February 1971 that:

I have also directed NASA to make every effort to expand our space cooperation with the Soviet Union. There has been progress. Together with Soviet scientists and engineers we have worked out a procedure for the development of compatible docking systems. In January we reached a preliminary agreement with the Soviet Union which could serve to bring much broader cooperation between us in the space field. I have instructed NASA and the Department of State to pursue this possibility with the utmost seriousness.<sup>22</sup>

By this message, Nixon incorporated U.S.–Soviet space cooperation in his own *détente* diplomacy. There were the various reasons why the negotiations

made good progress. On the U.S. side, there were the budget cuts that could be made through cooperation instead of competition, the support of public opinion and Congress, and the opportunity to fill in a blank period in U.S. human space programs. After Project Apollo finished in 1972, NASA would have only the Skylab space station program until the Space Shuttle was launched in 1978. It seemed that the United States was, and would be, behind the Soviet Union, especially in the area of a space station, in the 1970s. A U.S.–Soviet docking program would be able to cover the blank spot in the U.S. human space programs.

On the other hand, the reasons of the Soviet side were the display of equal cooperation between both countries and the opportunity to learn the cutting-edge U.S. docking technology. The Soviet Union wanted to show that it was still no less space-advanced than the United States, although it was beaten in the Moon race. Also, the Soviet Union was behind the United States in docking technology, even though ahead in general space station technology.

Another issue of U.S. diplomacy in those days was the rapprochement with China while the U.S.–Soviet space cooperation was progressing. China succeeded in launching its first satellite, by itself, on 24 April 1970, two months after Japan had succeeded in doing so. This event might not directly influence the relationship between the United States and China, although the rocket technology was directly and indirectly connected with ballistic missile technology. But in July 1971, it was announced that President Nixon would visit China soon. Two months later, the Soviet Union invited President Nixon to Moscow. The negotiation period on the U.S.–China rapprochement overlapped those on U.S.–Soviet space cooperation. In this sense, the U.S.–Soviet space cooperation played an important role in the triangular relations among the United States, the Soviet Union, and China in the 1970s.

In the negotiations on the U.S.–Soviet docking program, the most important issue was what kind of hardware would dock in outer space. The United States had the Apollo spacecraft and the Skylab space station, which was under development (though behind schedule), while the Soviet Union had the Soyuz spacecraft and the Salyut space station, which was launched in April 1971. Both countries agreed, in December 1971, that the U.S. Apollo spacecraft and the Soviet Salyut space station would dock.<sup>23</sup> NASA and the Department of State proposed that the U.S.–Soviet space cooperation agreement should be included in the summit meeting scheduled for May 1972. Then, suddenly, the Soviet Union proposed that, not the Salyut space station, but the Soyuz spacecraft should dock with the Apollo spacecraft, because of its technology and economy.<sup>24</sup> The real reason was that the Salyut space station was developed for both military and civilian uses. The U.S. side accepted this proposal because the most important

thing was to realize U.S.–Soviet space cooperation. According to the NASA estimate, the Apollo–Soyuz project would cost \$250 million, make use of the remaining hardware of Project Apollo worth \$100 million, and create employment for 4,400 workers.<sup>25</sup> Kissinger reported to President Nixon that the Apollo–Soyuz project probably would pass Congress.<sup>26</sup> Thus, the Apollo–Soyuz project was decided on in the Nixon administration.

In May 1972, the U.S.–Soviet summit meeting was held in Moscow. Both countries signed the space cooperation agreement on the Apollo–Soyuz Test Project (ASTP), with other agreements, such as the “Strategic Arms Limitation Treaty (SALT I)” and the “Anti-Ballistic Missile (ABM) Treaty.”<sup>27</sup> The people of both countries welcomed the space agreement, because it would promote U.S.–Soviet relations and prevent the useless race and duplication in space.



**Figure 13–3:** President Nixon and Soviet Premier Kosygin signing the agreement for the Apollo–Soyuz Test Project at the May 1972 U.S.–Soviet summit meeting. Credit: NASA.

### **ASTP and Further Space Cooperation**

For three years after the U.S.–Soviet summit in May 1972, the space-related officials of both countries made reciprocal visits to Houston and Moscow to carry out ASTP. In the preparatory process, three critical issues arose: Soviet secrecy, technology transfer from the United States to the Soviet Union, and safety of Soviet space technology. However, the Soviet secrecy gradually relaxed, the technology transfer was kept to a minimum, and the safety of Soviet

space technology was improved. The preparatory process was the very détente that eased the tensions between the United States and the Soviet Union.

The Nixon administration strongly supported ASTP as part of its détente diplomacy. In June 1973, Brezhnev visited the United States for the second summit meeting with Nixon. They signed an “Agreement on the Prevention of Nuclear War.” Concerning the U.S.–Soviet space cooperation, Nixon stated that:

Preparations for the joint space flight of the Apollo and Soyuz spacecraft are proceeding according to an agreed timetable. The joint flight of these spacecrafts for a rendezvous and docking mission, and mutual visits of American and Soviet astronauts in each other’s spacecraft, are scheduled for July 1975.<sup>28</sup>



**Figure 13–4:** Soviet General Secretary Brezhnev, President Nixon, and Skylab astronauts during the June 1973 summit meeting. Credit: NASA.

Subsequently, in June 1974, Nixon visited the Soviet Union for the third summit meeting with Brezhnev. They signed a “Long-Term Agreement on Economic, Industrial, and Technical Cooperation.” Nixon referred to future cooperation after ASTP as follows:

Attaching great importance to further American–Soviet cooperation in the exploration and use of outer space for peaceful purposes, including the development of safety systems for manned flights in space, and considering the desirability of consolidating experience in this field, the two Sides agreed to continue to explore possibilities for further joint space projects following the US–USSR space flight now scheduled for July 1975.<sup>29</sup>

Thus, President Nixon strongly supported ASTP. But in August 1974, he resigned as the result of the Watergate scandal. Vice President Ford succeeded him: the former Vice President, Agnew, had resigned in October 1973, because of the scandal surrounding his income-tax violations. As the new President, Ford continued the foreign policies of the Nixon administration and maintained strong support for ASTP.



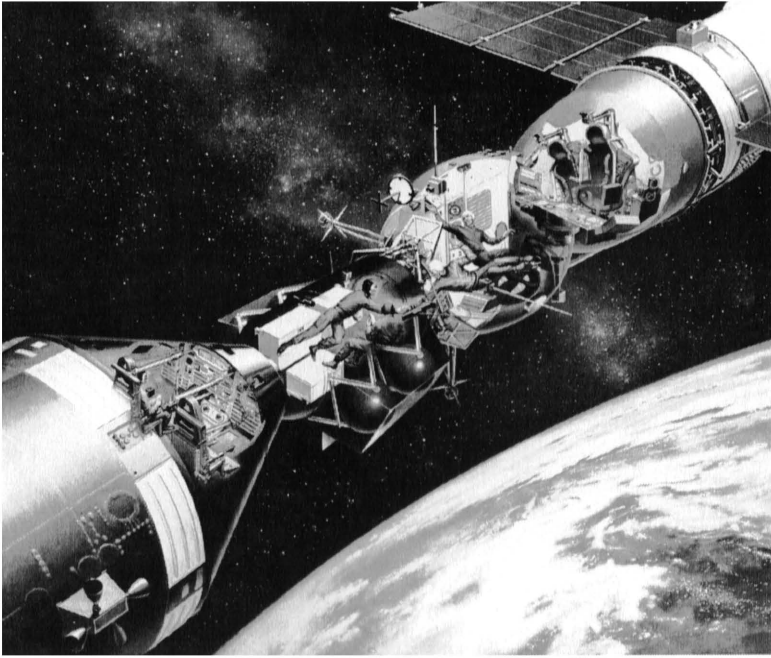
**Figure 13–5:** President Ford and the ASTP crew meeting at the White House, 7 September 1974. Credit: NASA.

On 17 July 1975, the U.S. Apollo spacecraft and the Soviet Soyuz spacecraft successfully docked in Earth orbit. Thomas P. Stafford, Apollo commander, and Alexei A. Leonov, Soyuz commander, made the historic “handshake in space.” President Ford and General Secretary Brezhnev congratulated their astronauts and cosmonauts and emphasized the U.S.–Soviet détente.

Just after the success of the Apollo–Soyuz project, Ford delivered an address in Helsinki, before the Conference on Security and Cooperation in Europe (CSCE). He said that “If the Soviet Union and the United States can reach agreement so that our astronauts can fit together the most intricate scientific equipment, work together, and shake hands 137 miles in space, we as statesmen have an obligation to do as well on Earth.”<sup>30</sup>

On the other hand, Brezhnev repeated “détente in space is irreversible.”<sup>31</sup> Although the détente gradually declined and the U.S. government changed from Ford to Jimmy Carter, the U.S.–Soviet space cooperation agreement was renewed for five more years, in May 1977. Both countries also agreed to consider a joint mission between the U.S. Space Shuttle and the Soviet Salyut space sta-

tion.<sup>32</sup> Therefore, the U.S.–Soviet space cooperation survived the U.S. détente diplomacy.



**Figure 13–6:** NASA artwork depicting the historic “handshake in space” that occurred during ASTP. Credit: NASA.

## Conclusion

The Nixon administration won the Moon race against the Soviet Union with Project Apollo and decided on the Space Shuttle program to maintain the initiative in space. On the other hand, the Nixon and Ford administrations realized the first major U.S.–Soviet space cooperation with ASTP. In other words, both administrations pursued not only cooperation, but also competition with the Soviet Union, through the Space Shuttle program and ASTP after Project Apollo.

The United States decided on ASTP for the following reasons. First, ASTP was a space program that matched U.S. détente diplomacy. ASTP was born of U.S. détente diplomacy but also advanced it during the 1970s. Second, U.S.–Soviet space cooperation, rather than competition, would contribute to space budget cuts. Third, the U.S. people and Congress agreed to both U.S.–Soviet space cooperation and the space budget cuts. Fourth, ASTP could fill in a blank period in U.S. human space programs. If it had not been for ASTP, the Soviet

Union would have taken the initiative and leadership in space away from the United States in the 1970s. In fact, the Soviet Union continuously succeeded in human spaceflights by launching the Soyuz spacecraft and the Salyut space stations, while the United States launched only the Skylab space station.

On the other hand, the Soviet Union agreed to ASTP for the following reasons. First, the U.S. Apollo human lunar landing seriously damaged Soviet space activities. To overcome this as soon as possible, the Soviet Union chose to show the world equal cooperation between both countries. Second, the Soviet Union might learn U.S. cutting-edge docking technology through ASTP, as it was behind the United States in this area. It was also part of the Soviet economic policy to introduce money and technology from western countries during the *détente*. In addition, the spacecraft docking technology would improve rescue and safety of astronauts from both countries.

Thus, the Nixon and Ford administrations tried not only to promote the U.S. *détente* diplomacy, but also to maintain the U.S. initiative in space through Project Apollo, the Space Shuttle program, and ASTP. To put it another way, they strove to keep the balance between international competition and cooperation through their comprehensive space policy. But, the balance meant pursuing competition in the cooperation, while cooperation in the competition in the Kennedy and Johnson administrations during the 1960s. Moreover, the space policy of the Nixon and Ford administrations not only followed, but also led U.S. *détente* diplomacy. Therefore, it could be concluded that the space policy of the Nixon and Ford administrations was “another *détente* diplomacy.”

## Endnotes

<sup>1</sup> This chapter is the sequel to Hirotaka Watanabe, “The Kennedy Administration and Project Apollo: International Competition and Cooperation through Space Policy,” *Osaka University Law Review*, No. 56 (February 2009): pp. 31–48; also published in *History of Rocketry and Astronautics*, AAS History Series, Volume 37, IAA History Symposia, Volume 26, Marsha Freeman, editor (San Diego, California: Published by Univelt, Inc. for the American Astronautical Society, 2012), pp. 149–166 (paper IAC-06-E4.2.01, presented at the 40th History Symposium of the International Academy of Astronautics, held in conjunction with the 57th International Astronautical Federation Congress, Valencia, Spain, 2–6 October, 2006); and Hirotaka Watanabe, “The Space Policy of the Johnson Administration: Project Apollo and International Cooperation,” *Osaka University Law Review*, No. 57 (February 2010): pp. 39–64; also published in *History of Rocketry and Astronautics*, AAS History Series, Volume 38, IAA History Symposia, Volume 27, Anthony M. Springer, editor (San Diego, California: Published by Univelt, Inc. for the American Astronautical Society, 2012), pp. 123–146 (paper IAC-07-E4.2.02, presented at the 41st History Symposium of the International Academy of Astronautics, held in conjunction with the 58th International Astronautical Federation Congress, Hyderabad, Andhra, India, 24–28 September 2007).

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- <sup>21</sup> Interview with George M. Low by the author, 30 April 1975, in Ezell and Ezell, *The Partnership*, pp. 126–127.
- <sup>22</sup> "Second Annual Report to the Congress on United States Foreign Policy," 25 February 1971, in *PPP, RN, 1971*.
- <sup>23</sup> Karash, *The Superpower Odyssey*, pp. 101–104.
- <sup>24</sup> Karash, *The Superpower Odyssey*, pp. 106–107.
- <sup>25</sup> U.S. Congress, House, Committee on Science and Astronautics, *U.S.–U.S.S.R Cooperative Agreements: Hearing Before the Subcommittee on International Cooperation in Science and Space*, 13–21 June 1972 (Washington, DC: U.S. Government Printing Office, 1972), p. 29.
- <sup>26</sup> Henry A. Kissinger, Memorandum for the President, "US–Soviet Space Cooperation," 17 May 1972, with attached: "Draft Agreement," in Logsdon, *Exploring the Unknown, Volume II*, pp. 198–199.
- <sup>27</sup> "Agreement between the United States of America and the Union of Soviet Socialist Republics Concerning Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes, Signed in Moscow, May 24, 1972," in U.S. Congress, Office of Technology Assessment, *U.S.–Soviet Cooperation in Space: A Technical Memorandum* (Washington, DC: U.S. Government Printing Office, July 1985), pp. 26–27.
- <sup>28</sup> "Joint Communiqu, Following Discussions with General Secretary Brezhnev," 25 June 1973, in *PPP, RN, 1973*.
- <sup>29</sup> "Joint Communiqu, Following Discussions With Soviet Leaders," 3 July 1974, in *PPP, RN, 1974*.

- <sup>30</sup> “Address in Helsinki before the Conference on Security and Cooperation in Europe,” 1 August 1975, in *Public Papers of the Presidents of the United States, Gerald R. Ford, 1975*. Available at <http://www.presidency.ucsb.edu/ws/>.
- <sup>31</sup> “Flying with Détente Not Likely to Displace Space Rivalry,” *Baltimore Sun* (28 July 1975), in Karash, *The Superpower Odyssey*, p. 131.
- <sup>32</sup> A. P. Aleksandrov, USSR Academy of Sciences, and A. M. Lovelace, NASA, “Agreement between the USSR Academy of Sciences and the National Aeronautics and Space Administration of the USA on Cooperation in the Area of Manned Space Flight,” 11 May 1977, in Logsdon, *Exploring the Unknown, Volume II*, pp. 215–217.