2016

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HOW HOSTILE WAS THE SPACE RACE?
AN EXAMINATION OF SOVIET-AMERICAN
ANTAGONISM AND COOPERATION IN SPACE

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History 499: America in the 1970s
May 4, 2016
The day was July 17, 1975. It was 12:12 in the afternoon by Eastern Daylight Time. At this moment, the first contact was made between spacecraft that had been launched separately from the two greatest powers in the world – the United States of America and the Union of Soviet Socialist Republics. The Apollo capsule that carried American astronauts Thomas Stafford, Vance Brand, and Donald Slayton connected with the Soyuz 19 craft piloted by Soviet cosmonauts Alexey Leonov and Valery Kubasov.\(^1\) As the world watched a television broadcast of the event, it was clear that much had changed over the two decades since the first man-made satellite was launched into orbit. Not only were the USA and the USSR no longer directly competing with one and other, they were in fact on a joint mission which very visibly demonstrated the lack of animosity between the two space programs. This flight would have been unimaginable to a person who watched the first fifteen years of space exploration play out, and yet – here it was.

This proof of cooperation between the states had been a long time in the making, as talks between the respective space agencies had begun no later than 1971, and showed that in some areas, the differences between the superpowers could be overcome in order to make meaningful progress together. To the casual observer, this type of collaboration made little sense. The Space Race had begun with the USSR’s launch of Sputnik in 1957, and quickly escalated into a serious of missions by each nation meant to show their technological superiority over the other. With the success of Apollo 11 just twelve years later in 1969 and the successful landing of humans on the moon for the first time, the United States had proved that it was able to speed up and even pass the Soviet Union in a realm that had originally belonged to Moscow. Despite the

antagonism between the USA and the USSR between the end of World War II and the beginning of the 1990s, the two powers in fact were helped by the existence of their opposite, and even in some cases work together, as evidenced by Apollo-Soyuz.

As the 1960s drew to a close, the average American would not have expected anything like Apollo-Soyuz to take place as soon as the middle of the next decade. Richard Nixon had been elected president in 1968, and had a background as a staunch anti-communist who was fully invested in the success of the capitalist world. In Vietnam, the nation’s military was involved in a war that was already quite unpopular at home, but that the government insisted was necessary to keep the spread of communism through Southeast Asia in check. The space race itself was in full gear, and when Neil Armstrong and Buzz Aldrin landed on the moon in July of 1969, they finally proved the success of NASA over the Soviet Academy of Sciences. Though there was room to question the success of the United States in its battle against communism, there was little evidence to show that cooperation between the two nations was just a few years away. Thus, the arrival of President Nixon’s détente policies caught much of the world off guard.

The strategy adopted by Nixon and his advisor (and later Secretary of State) Henry Kissinger was one that deliberately pushed for the continuation of the Soviet Union as a world power. As Daniel Sargent wrote in his book *A Superpower Transformed*, “[D]étente aimed to preserve American international primacy through the construction of a geopolitical balance that would preserve—not resolve—the bipolar schism that had opened in the 1940s… The Nixon administration nonetheless accepted that the Cold War was permanent—and even hailed the Cold War as a source of Washington’s power over its allies.”² This was then supposed to lead to the West staying allied together under the leadership of the USA, as any rupture in party lines would

allow the powerful enemy to take advantage and gain even more territory and resources. The new introduction to the situation was the rise of communist China, whose political break from the Soviet Union showed that Mao’s nation had its own goals in the international sphere. No longer was China interested in merely being a puppet of the most powerful communist nation in the world. Having two countries that shared some of the same spheres of influence was useful to Nixon, as he could move closer to one or the other when attempting to put pressure on his opponents. Of course, neither China nor the USSR wanted to see the Americans permanently ally themselves with the other nation at their own expense, meaning that they could be influenced by these threats of Nixon. If the United States were ever to declare one of the two nations a communist friend to democracy, the other would have no chance of victory in any sort of ensuing military conflict.

President Nixon’s ability to extend a hand to these communist countries was enhanced by the fact that he was a known opponent of such regimes. There was no chance that his political enemies within America could have pinned a label such as “communist lover” on a man who had made his name for his efforts to reduce communism in his own government less than two decades prior. This freedom allowed Nixon to be the first president to visit Beijing under the rule of the communist government, and the first to travel to the Soviet Union since the end of the Second World War. Anybody who had previously been “soft on communism” would have been crushed by the press and their opponents within American politics if they had attempted such maneuvers. In this way, a person in opposition to the ideology of the USSR became the one who brought America closer towards it than any other leader since Berlin fell.

It was in this way that cooperation between the Americans and the Soviets began to increase. At the Moscow summit of 1972 between President Nixon and General Secretary
Brezhnev was another important step down this road. At this meeting, the signing of the Strategic Arms Limitation Talks (SALT) accords allowed each nation to legitimate the other’s nuclear arms stockpile while agreeing to halt further production. John Lewis Gaddis explains this well in his book *The Cold War*, writing, “The[ talks] represented an acknowledgement on the part of the United States that the Soviet Union was now its equal in nuclear capabilities, and in some cases of weaponry its superior. They legitimized the logic of Mutual Assured Destruction: that remaining defenseless against a nuclear attack was the best way to keep one from happening.”

It was not only the United States who found this increased cooperation to be useful – the Soviet Union did as well. With the SALT I accords in place, both countries were able to free up portions of their national budget that would otherwise have been spent on missiles. The Soviet Union was able to avoid embarrassment thanks to the fact that it had larger numbers of missiles than the USA, while the United States knew that its weapons were more advanced and more accurate that those found in the USSR. Though neither could be completely certain that they were not under any threat of attack, the fact that they were able to check up on each other’s stockpiles through satellite surveillance reduced the risk of suddenly being informed that the enemy had taken a huge leap forward. The cooperation was beginning to take shape in the real world.

Although the nations had opposed each other nearly immediately after the end of World War II, Soviet and American troops never fought a battle against one and other. It would be impossible to call the United States and the Soviet Union friendly, but they managed to keep their aggression from erupting into open warfare. There were battles fought against the principles of the enemy, and close calls such as the Cuban Missile Crisis and Gary Powers’ U-2

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plane being shot down above the USSR, but knowing how close they could come to mutually
destroying the world, did not allow this to happen. In this uneasy manner, the two countries
coexisted for nearly thirty years. Yes, there was plenty of rhetoric on both sides as to the
destructiveness and poor choices made by the other. But for countries who are often described
as mortal enemies, there was surprisingly little actual conflict. With the signing of SALT I, in
the early 1970s they even began to work together, calling into question even further the idea that
the Cold War precluded the long-term existence of both the capitalist United States and the
communist Soviet Union.

Another important event that took place at the end of April in 1975 was the Fall of
Saigon and the evacuation of nearly all American military personnel and civilians from the
former South Vietnam. The war had not been between the two major powers, but in leaving the
country, the United States admitted that it was not always able to stop the spread of communism,
and the alternative style of economic organization won an important mental battle. The
communists and the capitalists had not just fought to a standstill as they had in Korea. This was,
instead, the triumph of a small nation (albeit greatly supported by China) over the most powerful
capitalist country on the planet. However, the Sino-Soviet split meant that not all communist
countries were a single reliable allied bloc any more, and in fact, the American loss in some ways
harmed the USSR. By much the same thinking that the Nixon administration used, if the United
States fell, there would be less for the Chinese to worry about in the event of a conflict between
the two major communist powers. This could be an issue in the future, where these two
countries might become the most influential in the world. Therefore, the Soviets did not press
upon the Americans too much on this matter, allowing the facts to speak to themselves rather

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than injecting a large amount of rhetoric regarding the failures of capitalist imperialism. To insult the US too much at this point might have jeopardized future collaborations between the two nations, including one that was to be very important from a public relations standpoint – the Apollo-Soyuz space mission.

The idea of a joint USA-USSR mission was not, in fact, a particularly new one. President John F. Kennedy had a complicated relationship with the idea of whether or not scientific achievements in space ought to be viewed through a nationalistic lens. As Edward and Linda Ezell wrote in *The Partnership: A NASA History of the Apollo-Soyuz Test Project*, “At one point, the President called for American domination of the space frontier in the 1960s, and at another time he argued that ‘space offers no problems of sovereignty,’ so ‘why, therefore, should man’s first flight to the moon be a matter of national competition? Why should the United States and the Soviet Union, in preparing for such expeditions, become involved in immense duplications of research, construction, and expenditure?’” These statements were made during the summer of 1963, approximately six years after the launch of Sputnik and six years before the successful conclusion to Apollo 11. Though the assassination of President Kennedy meant that he was no longer able to influence the actions taken by his nation’s space agency, he planted the seed that would lead to Apollo-Soyuz over a decade later. His arguments for joint missions are sound: he proposed that in nearly all ways, it would be more efficient for each country to allow its scientists to cooperate with the other’s. A freer flow of information would allow for more innovation in terms of new projects building off those that had already been completed, as well as avoiding the redundancy of repeating an experiment performed by a different group.

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6 Ibid.
It was next to impossible to imagine this being a reality at the time, though, due to the extreme level of competition that existed between the nations’ space agencies. This began extremely early, in the days following the end of World War II in Europe. America and the Soviet Union competed to make sure that the best German rocket scientists ended up in their spheres of influence, in order to make sure that they could convince them to continue the work that they had started under the Nazi regime. It appeared that the United States had won a serious advantage when Wernher von Braun surrendered to their military rather than the Soviet army: von Braun was the man who masterminded most of the advances in the Nazi rocketry program. Indeed, securing these type of scientists was such an important consideration for both governments that one of the top Soviet officials involved in the rocketry program, Colonel Girgori A. Tokady, made an official report regarding the fact that, “We have no leading V-2 experts in our zone; we have no complete projects or materials of the V-2; we have captured no fully operational V-2s which could be test launched right away.” In this early stage of what was to become the Space Race, America had won.

The next decade proved that this victory might not have been as important as originally thought. The United States was not able to take advantage of its wealth of top scientists due to inefficiencies of bureaucracy and competition between different branches of the military, none of which wanted to fall behind any of the others. Meanwhile, the Soviet space program was making quick progress under the guidance of another brilliant rocket scientist: Sergei Pavlovich Korolev. When the USSR launched the first artificial satellite in October of 1957, the rest of the world did not know how to respond. Both Cold War superpowers had been working, on and off,

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on such a program for the past twelve years, but few had expected the Soviets to beat the Americans to the punch. As it turned out, this was the step that it took for the US government and NASA to refocus their efforts and create an environment in which the rocket scientists were able to be successful. Although not immediately, soon, the progress was clear. As Eisman and Hardesty wrote, “The four attempts in 1958 all ended in failure. Another 14 launches in 1959 garnered nine successes. The year 1960 showed greater progress, with a record of 12 successful tries in 17 attempts.” Now it was clear that the countries were both willing and able to focus on surpassing one and other in yet another sphere: that of space and rocket technology.

Both the United States and the Soviet Union set their sights on that far-flung goal of human space travel: landing a man on the moon. In retrospect, it is clear that it would have taken a catastrophe or a minor miracle (depending on one’s point of view) for America to fail to achieve this before the USSR. The Soviet technology was not awful, and could have been used, more than likely, for a similar mission to Apollo 11. What was not present “was the very large investment in rubles that would have been required to bring the vehicle to an acceptable state of reliability.” This left the field of play open to America, and astronauts Buzz Aldrin and Neil Armstrong, with the support of all of NASA, would become the first men to walk on the moon during July of 1969. Though the plaque that they left at their landing site read, in part, “WE CAME IN PEACE FOR ALL MANKIND,” it was clear that this was a mission, primarily, for the American people and for the ideology of capitalism. With names such as Columbia for the command module and Eagle for the lunar lander, the mission was unapologetically American.

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12 Eisman and Hardesty, *Epic Rivalry*, 236.
13 Ibid, 237.
Perhaps it was seeing the success that others could have and wishing to propel all of human space exploration forward that lead to Soviet receptiveness to a new American desire to cooperate in space.

Little progress was made on the project of collaboration during this era of competition. There was some amount of correspondence between each nation’s space agency, but this was not a widely known fact, even within the agencies themselves. During these years, the general public did not think of space as a location where partnership could be expected or was even advisable, necessarily. However, President Nixon felt that the correspondence between the agencies was a promising beginning that should be further explored, “[o]n 10 July 1970… publicly confirm[ing] his interest in pursuing discussions of space cooperation, stating that negotiations should be conducted at the technical agency level.” This step forward meant that NASA and the Soviet Academy of Sciences were allowed to engage with one and other more openly, but was still far from a guarantee of actual future cooperative missions. Thanks to the fact that both American and Soviet leadership could shift unexpectedly, the current goals could not be relied upon to last more than a few years. In addition, the two countries were still in open opposition to one and other, including the ongoing military conflict between capitalism and communism in Vietnam. Though there was reason for optimism for anybody hoping for a future filled with collaboration, it was still far from a certain outcome.

For the time being, everything was going as well as possibly could have been expected. The Moscow and Washington governments organized a meeting between American and Soviet representatives from their respective space agencies that was to take place in Moscow itself in

14 Ibid, Ch. 4, http://www.hq.nasa.gov/office/pao/History/SP-4209/ch4-1.htm
15 Ibid.
January of 1971. The Americans were not sure to what extent they could expect productive talks at this meeting, considering that several presidential summits of a similar nature were less than fully successful, but decided that taking the opportunity was more important than worrying about potential pitfalls. As it turned out, there was no need to worry: “The U.S. delegation felt that the Soviets were surprisingly cooperative and open in their approach, aside from some routine haggling over wording.” The two groups were able to agree upon five general goals that they would work towards, including exchanging more meteorological data, planning cooperative meteorological rocket programs, examining the possibility of environmental research over international waters, exchanging more detailed information regarding lunar missions, and increased exchange of space biology and medicine data. These were broad-spectrum goals that would not force any particular sets of data to be shared that were deemed sensitive for one reason or another by either nation’s government. They were, though, steps towards the reduction of previously mentioned inefficiencies, especially with regards to sharing information so as not to repeat experiments that had already been completed. The fact that the agreement was finalized without difficulty also portrayed both sides’ desire for greater contact. This, for once, appeared to be an area in which the two nations could work together without extremely large levels of friction.

This victory was only to be built upon during the remaining years of President Nixon’s tenure in office. All of the members involved on the American side of the agreement felt that everything had gone smoothly enough to indicate that space agency cooperation could be included as part of the platform of Nixon and Brezhnev’s Moscow Summit in 1972. Despite

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16 Ibid, Ch. 5, http://www.hq.nasa.gov/office/pao/History/SP-4209/ch5-1.htm
17 Ibid.
18 Ibid.
Nixon’s public call two years prior for increased collaboration between the nations in this realm, few people were aware of the extent to which it had increased. Only minimal details of further agreements had been released, and it is unlikely that many private citizens expected the USA and USSR to go so far as to have a docking of craft in orbit. However, that is just what was announced on May 24, 1972, when NASA Administrator James C. Fletcher appeared at the White House to discuss the successes that were being achieved while the President was in Moscow. As he went on to say, and the Ezells would write, “Of the various planned enterprises, ‘the most dramatic . . . will involve the rendezvous and docking of a U.S. spacecraft with a Russian Soyuz spacecraft in 1975.’”\footnote{Ibid.}

This was a monumental step forward in terms of concrete results for those who had long advocated for greater cooperation between NASA and the Academy of Sciences. The fact that just three years after landing the first human beings on the moon, the United States was able to agree to work together with the Soviet Union on a joint mission shows a lack of overconfidence and a sense of scientific community that transcends borders. The same can be said in the opposite direction as well; it would have been easy for the Soviets to denounce any American accomplishments in the Space Race as capitalist nonsense that did not involve vital research such as that conducted in the USSR. Thankfully, the two nations were able to set aside their differences and work in ways that would benefit both themselves and others to a much greater extent than any solo missions might have done.

Work soon got underway on what was to be officially named the Apollo-Soyuz Test Project (or Союз-Аполлон Экспериментальный Полет, the Soyuz-Apollo Experimental Flight, for the Soviet Union). A meeting was scheduled in Houston for early July, less than two months...
after the official announcement of the two nations working together.\textsuperscript{21} NASA assembled teams, preliminary plans were made, goals were set, and then the Soviet scientists flew in. When the two groups ended up in the same room together, things seemed a lot more difficult than they had during the month of planning the meeting. Notes from the first meeting included, “Don't seem to be able to complete anything quickly… Translations cannot be trusted… Russian language takes about twice as long to say as does English.”\textsuperscript{22} The mere act of moving from one language to another turned out to be incredibly difficult for the people who were working on this project. Since many of the translators did not know the jargon of the foreign language to the level that was required, they had to try to create workaround, but ended up using words that the scientists themselves would never have chosen. They soon realized that diagrams were much easier for the other side to understand than any words.\textsuperscript{23} Diagrams could intuitively be understood by both groups of scientists, who then could teach their translators the words that would describe the types of things that they wanted to change. Naturally, this process sped up as the talks went on, resulting in preliminary agreements regarding protocol and a decision to meet again in Moscow in three months.

On October 7, 27 members of NASA arrived in the Soviet Union.\textsuperscript{24} The people in charge of designing the flight were able to make headway on the project, and the talks were very productive. One issue, though, was that the Soviets seemed to be insistent upon proving their nation’s boasts about being the leaders in space, and were often reluctant to admit that their craft might have capabilities lower than that of the Apollo capsule. Looking back, one of the American scientists involved said, “They seemed to embarrass easily about the capability of their

\textsuperscript{21} Ibid, Ch. 7-1, http://www.hq.nasa.gov/office/pao/History/SP-4209/ch7-1.htm.
\textsuperscript{22} Ibid, Ch. 7-2, http://www.hq.nasa.gov/office/pao/History/SP-4209/ch7-2.htm.
\textsuperscript{23} Ibid.
\textsuperscript{24} Ibid, Ch. 7-3, http://www.hq.nasa.gov/office/pao/History/SP-4209/ch7-3.htm.
spacecraft, which they had no need to do. Their spacecraft was designed for a different thing that Apollo was.”25 Once openings were made in this area, with Americans reassuring the Soviets that they could work within the limitations of the Soyuz craft, the talks began to move forward even more quickly. Plans were set regarding design decisions and other details, and each side was then able to begin making specific arrangements for their mission specifications. Everything seemed to be on the path that it needed to in order to ensure that the July 1975 launch date was met.

Although things had gone well up until this point, there were still suspicions within NASA about the capabilities of the Soviet space agency and the safety of the flights that it undertook. Therefore, the United States proposed a Mid-Term Review in October of 1973, in which members of both nation’s agencies could pose questions to one and other and get answers about things that were bothering them. For the USA, the main issues were those of, “Soviet hardware failures (Soyuz 11 and Salyut 2), joint participation in test and flight preparation activities, project milestones, and the preparation of documentation.”26 Without reassurance about the technical capabilities of the Soviet Academy of Sciences, many average Americans (and even some within the aeronautic community) were worried about their failure rate and their ability to protect American lives. This conference, which took place in the USSR in October of 1973, covered the failures of Soyuz 11 and Salyut 2, which took no small amount of convincing on the part of Soviet regulators to allow their American colleagues to know. Their openness and the fact that the failures themselves proved quite fixable led the American delegation to the conclusion that this would be a safe project to undertake.27

25 Ibid.
After the Mid-Term Review, there were no major problems encountered by either of the agencies on their projects, and crews finished their training in early 1975. The last portion in the United States began on February 7, and lasted for approximately two weeks. The USSR flew its cosmonauts into America, where they were able to work together with their fellow astronauts for the first time. During this time, the Soviet and American crewmembers stayed in Florida, where they, “practiced all the joint flight activities in the Apollo, Soyuz, and docking module mockups, using the latest version of the onboard flight documents.”28 All of this went smoothly, and the crews were able to converse and get to know one and other to a certain extent. The American astronauts spoke rudimentary Russian, as the Russians spoke a certain amount of English.29 Despite the language barrier, all were agreeable amongst one and other. After this finished, further training took place in the Soviet Union between April 14 and 30. The American astronauts saw for the first time the Baikonur Cosmodrome – a massive facility located in the desert of Kazakhstan. Training in the USSR was much the same as in the USA, and finally, the two crews were declared ready for launch and the last remaining arrangements were made.30

Finally, on July 17, the docking was completed. The two capsules were steered toward each other and linked together by their pilots, and soon the two crews were able to open their hatches and greet one and other. These pioneers of international space cooperation took this all in stride, seeming more than anything to be satisfied by the success of the each stage of the mission. In describing this moment, Ezell and Ezell wrote that, “The[ astronauts] appeared to accept their amazing technical accomplishment with the same nonchalance that had characterized their practice sessions in the ground simulators. There were no grand speeches, just

30 Ibid, Ch. 9-12.
a friendly greeting from men who seemed to have done this every day of their lives.”

Without these men and the cooperation of the governments which they served, projects such as the International Space Station would have faced very different and, more than likely, more difficult paths towards realization. The historic mission was a success, and one that would be remembered for generations to come.

Today, the Apollo-Soyuz Test Project is still remembered as a triumph of cooperation over rhetoric at a time when American and Soviet collaboration was far from a given. Though the governments worked against each other in many ways, they also gave their space agencies the resources and the freedom that they needed to come together and avoid extending the Space Race, which surely would have wasted millions (if not billions) of dollars on different inefficiencies in the scientific method. These agencies then worked together for years to figure out exactly to what extent they would be able to make certain joint missions work, and in what manner they would take place. Today, joint Russian-American work in space continues, as American astronauts have ridden on Russian rockets to get to the space station since the US space shuttle program was ended in 2011. And Russians who are feeling particularly nostalgic for the Soviet Union or the victories that it achieved can still find and purchase souvenirs that were originally released by the Soviet government in 1975 on their local corner store’s shelves: a brand of cigarette labeled Союз-Аполлон (Soyuz-Apollo).

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