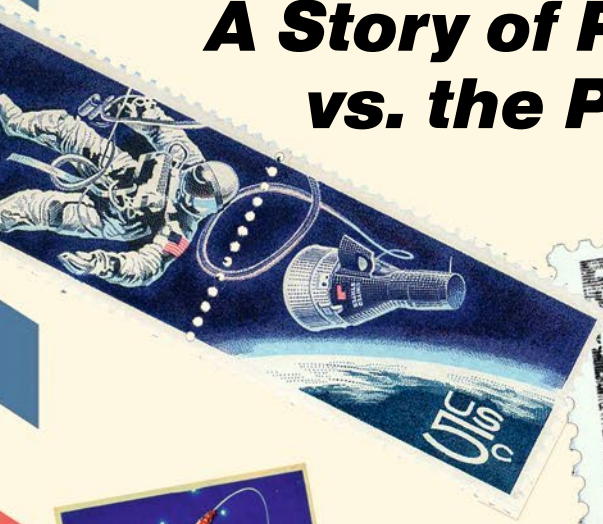
THE RACE TO THE MOON

CHRONICLED IN STAMPS, POSTCARDS, AND POSTMARKS

A Story of Puffery vs. the Pragmatic



Umberto Cavallaro

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A final thanks to Mike Shayler, who added value to the text with his professional editing and his friendly advice.

Unless otherwise indicated, the pictures of collectibles (covers, stamps, cards, posters, mission patches, manuals, etc.) are from the collection of the author. Despite extensive research, the author has been unable to trace the exact origins of some of the images used in this title and would welcome any assistance that would enable him to credit the appropriate sources.

Throughout this text, there are additional sections aimed at clarifying special philatelic aspects of the story. They are not part of the main flow of the text and can be found in boxes highlighted with a different background color.

To Anna Yukiko
Who will eye-witness
What we only dared to dream.

Foreword

Reading this book brought me back to the wonderful and intense years I spent at NASA when the events described by Umberto were taking place. It reminded me of the enthusiasm, the emotions, anxiety, expectations, frustration, and elation of those "golden years" when I was living them.

The book presents the two different worldviews confronting each other at the turn of the 1950s, when two superpowers came together in a head-to-head competition. Fortunately, the rivalry extended beyond our planet and slid into a more peaceful battlefield. Sputnik had changed the direction of American science and had touched all our lives, but the awakening that triggered a heated space race was, in the United States, the launch into space of Yuri Gagarin on Vostok 1 in April 1961. A few weeks later, American President John F. Kennedy announced that America was going to land a man on the Moon within 10 years.

We ran all the way keeping an eye on the Soviets, feeling their breath on our necks. Still, by the summer of 1967 we believed that, in the unproclaimed race to the Moon, the Russians were ahead of the United States. When Russia launched Zond 5 in September 1968, we worried that it was a prelude to an imminent Russian manned flight around the Moon and, eventually, a lunar landing. The Soviets had upstaged us so often that NASA was concerned that they would attempt their own manned circumlunar mission prior to the United States.

Only years later, when the United States and Russia began to move closer together with the joint Apollo/Soyuz Program – and to an even greater degree when American astronauts participated in the Russian Mir space station program – did we begin to understand the limitations of the Russian space program and the differences between the way our two countries were exploring space. As the book captures well, there was a radical difference in the human approach to space exploration. Early astronauts successfully fought for more human involvement and manual control of the spacecraft. Early cosmonauts were basically "passengers" on missions where operational activities were almost exclusively handled by ground controllers. Cosmonauts were sometimes perceived as a troublesome substitute for an onboard sequencer. The Soviets never fully trusted the cosmonaut crews as opposed to their ground "collective" support. The philosophy of central control led to the pecking order of ground over crews.

An automatic orbit and recovery was no more appealing to an astronaut in 1960 than automatic landings are today to a passenger on a commercial airliner. This attitude may have been a factor in one of the most obvious differences between the American and the Russian manned space programs: The Soviets returned from manned space missions on land, while in America we splashed down in the ocean. As a result, the Soviets developed relatively simple hardware and flew relatively simple missions. It was a real eye-opener to us in the Astronaut Office when we learned that so many Russian "firsts" had been accomplished, and they had gained such worldwide prestige, with such simple hardware. (It was one of the few areas where we could learn from them.)

An interesting side point is that philately – that at the time was a sort of national pastime, both in the USSR and in the USA – was heavily used by Soviets for propaganda purposes. Secrecy and propaganda, used with fantasy, or – if you want – with creativity, helped to mask the differences, and the limits, for years.

With the Apollo 50th anniversary approaching, thank you, Umberto, for doing this history!

Walter Cunningham, Apollo VII

1

Sputnik Triggers the USSR–USA Competition

USSR-USA SPACE RACE: IGNITED IN ITALY

In September 1956, for the first time ever, an artificial satellite was featured on a postal stamp. The Italian stamp, designed by Corrado Mancioli, was issued to mark the 7th International Astronautical Congress (IAC), which was hosted between September 17 and 22 that year in the Italian capital, Rome.

The IAC is organized by the International Astronautical Federation (IAF), a non-governmental international organization, with the first IAC held in Paris back in 1950. The 7th such Congress (which has no permanent home) in 1956 was hosted by the Italian Rocket Association (Associazione Italiana Razzi), headed by Professor General Gaetano Crocco. The chief topic of IAC-7 was the artificial unmanned satellite, heralded by the newspapers as the "*first step towards sidereal space.*" The Congress was attended by almost 400 delegates, coming from the 20 national astronautical societies that were members of the IAF. The Soviets were also invited to attend, for the second time, with 'observer' status.

A year earlier, during the previous IAC-6 Congress, held in Copenhagen, Denmark, the Soviet delegation had held a press conference in their hotel, during which they announced a plan to launch a man-made object into space during the International Geophysical Year (IGY). The IGY would run from July 1, 1957 to December 31, 1958, to correspond with the maximum activity of the Sun's eleven-year cycle.

This would be the Soviet contribution in response to the resolution adopted in October 1954 by the *Comité Speciale de l'Année Geophysique Internationale* (CSAGI), during its meeting held in Rome. That resolution had indeed called for the launch of artificial satellites during the IGY, to contribute to the mapping of the

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Figure 1.1: (top left) The first postage stamp ever to feature an artificial satellite. (top right) U.S. stamp issued to commemorate the International Geophysical Year – IGY 1957-8. (main) Cover commemorating the first International Astronautical Congress, Paris 1950.

Earth's surface. Quite coincidentally, the American president had issued a similar statement few weeks earlier, announcing the launch of Vanguard, the first American satellite.

During the IAC-7 Congress in Rome, a half-dozen American scientists circulated to illustrate the American plan in greater detail. It turned out that the UK, France, the Netherlands, and the USSR were all preparing their own satellites, unveiling a quiet scientific competition that until then had been played out in the greatest secrecy. However, no one gave much credence to the vague pronouncements of a possible launch by Leonid Sedov, the head of the Soviet delegation,

Figure 1.2: Postcard commemorating the 7th IAC in Rome, 1956.

whose statement was virtually under-valued and all but ignored[1]. Everybody *knew* that the United States would launch the world's first satellite![2]

Leonid Sedov, a university professor and Member of the Soviet Academy of Sciences, with no direct connection to the space program, would be destined to achieve great notoriety as a figurehead, presented to the Western media as a guiding force of the Soviet space program. In fact, the fledgling Soviet satellite program was controlled with an iron fist by the military, and Sedov's Commission had little real authority and virtually no contact with it.

[1] The same would happen the following year on September 30, 1957, just a week before the launch of Sputnik, when Sergei M. Poloskov, the Soviet speaker at the CSAGI Conference in Washington, announced that the Soviet launch was imminent, but the expression he used could not be literally translated.

[2] The name 'Vanguard' reflected American confidence that their satellite would be the first in the world, as Nikita Khrushchev ironically pointed out during his speech for the 40th anniversary of the Revolution, on November 6, 1957.

Sedov, who was allowed to travel outside the Soviet state to represent the USSR, would be undeservedly credited with the successes achieved with Sputnik, Lunik and Vostok by the mysterious 'Chief Designer' Sergei Korolev, whose identity remained a State secret until after his death[3]. Though Sputnik's launch in 1957 had become the talking point of the entire world, no one had a clue as to the identity of its chief designer. His deliberate anonymity would later be confirmed in an interview by Sergei Khrushchev, son of Soviet Premier Nikita: "*At that time, nobody knew the name 'Sergei Korolev'; it was classified.*" [1]

Korolev was never allowed to travel abroad, nor to meet foreign scientists at home in Russia, or at international congresses on space matters. As the sole concession, in recognition of the key role he played, he was allowed to write articles in the important publication *Pravda* – the Communist Party's daily newspaper – but only under the pseudonym of either 'Professor K. Sergeyev', or 'Konstantinov'. Khrushchev was always careful to keep Korolev away from the spotlight. Even when the Nobel Prize Committee decided, without polling the world's scientists, to give an award to Sputnik's Chief Designer and requested his name from the Soviet government, Nikita Khrushchev refused to reveal his identity, claiming that in order to ensure the country's security, and the lives of these scientists, engineers, technicians and other specialists, it was not possible to make their names known or to publish their photographs.

According to Sergei Khrushchev, however, his father's real concern was not confidentiality [2]. "*The KGB knew that there was really no need to keep his name secret, but, as KGB chief Ivan Serov told me, the enemy's resources were limited, so [we] let them waste their efforts trying to uncover 'non-secret' secrets. As for real secrets, the enemy's arms were too short to reach them.*" In fact, Nikita Khrushchev's main concern was that Korolev was the head of the council of chief designers, in charge of all space projects. Khrushchev knew that the other designers harbored their own ambitions and considered themselves no less significant. They would all have been madly jealous if Korolev alone had received such publicity. After the launch of Sputnik, all of the designers (including Korolev, Glushko, Chelomey, Tikhonravov, Keldysh, Mishin, Voskresensky, Chertok, etc.) had been

[3] The most objective biography of Sergei Pavlovich Korolev is "Королев. Факты и мифы" (*Korolev: fakty i mify* – in English "Korolev: Facts and Myths"), issued in 1994 by the Russian writer and journalist Yaroslav Golovanov. Between 1965 and 1966, Golovanov was one of the team of three journalists who were unofficial cosmonaut candidates. The team was disbanded after Korolev's death. Golovanov became a space correspondent of the daily newspaper *Komsomolskaya Pravda* for almost 30 years and worked on the biography of Korolev by interviewing about 300 people who personally knew him. It is noteworthy that, in 1964, Korolev was able to persuade the Kremlin to let him co-opt trustworthy newspaper reporters into his cosmonaut corps, in the hope that the ensuing publicity would inspire greater support for space exploration. This was decades before NASA realized the public-relations value of sending schoolteachers and senators into space.

jointly awarded the Lenin Prize and other Soviet honors. "*If the Nobel prize went only to Korolev,*" Sergei Khrushchev explained, "*my father thought the [other] members would get upset and that the team would simply disintegrate, and with it, the hopes of [the] Soviet Union's future space research and missile design. As my father saw it, you could order scientists to work together, but you couldn't force them to create.*"

Perhaps, as Anatoli Fedoseyev observed however, there were also other, more subtle reasons: "*There is another reason for the secrecy, especially as it applies to the leading scientists upon whom the level of science and technology in the Soviet Union really depends. It is not the fear of their being kidnapped which prompts the Soviet authorities to keep them incognito. It is rather because, if such people were known to the public, they might acquire sufficient fame and influence to represent a powerful and possibly dangerous opposition to the political leaders.*" [3]

In his reply to the Nobel committee, therefore, Premier Khrushchev stated that all the Soviet people had contributed to the project and that every Soviet citizen would deserve the reward… and the Nobel prize went elsewhere. This concept of collective achievement became one of the main recurring themes of the visual art of Soviet propaganda, designed to give all Soviet citizens a sense of pride and of belonging.[4] The sentiment was frequently expressed through many well-known posters, which were widely circulated at the time (see Figure 1.3).

However, Khrushchev had deprived Sputnik's creator of the highest honor in the field of science and, of course, Sergei Korolev felt deeply hurt. The price of technological success in the Soviet Union of the 1950s and 1960s was to disappear from public view. Korolev's daughter, Natasha Koroleva, recalled in a book that the veil of secrecy had vexed her father throughout his life: "*We are like miners – we work underground,*" she recalled him saying. "*No-one sees or hears us.*" [4]

The man who could pick up the phone to call Nikita Khrushchev and who would ultimately humiliate the mighty United States of America in the early years of the Space Race was condemned to be a faceless nonentity. The rest of the Soviet Union, and the world, would only learn of Korolev's name following his death in 1966.

[4] Visual art took on a very important role during the October proletarian revolution in Russia and the subsequent civil war. Very few newspapers existed in those days, so such posters often replaced the tabloids. Millions of posters were reproduced and circulated, posted on walls in cities and villages, where they were widely accessible to the less literate masses. The simple, emphatic, vibrantly colored designs they depicted were easily understood by everyone, while the short and energetic slogans with powerful propaganda messages that accompanied them stuck in the viewer's mind as a rallying call for action. Soviet posters continued to keep pace with the times. During the 'Space Era', their unique laconic, expressive and straightforward style delivered vigorous and effective slogans, glorifying the Soviet Union's technological prowess and importance in the world (and in the universe) and focused on the role that the workers played in the Space Race. They helped to inform, educate and instill pride in the average citizen about the achievements of the space program and Mother Russia's accomplishments.

Figure 1.3: (left) "Glory to the Workers in the Field of Soviet Science and Technology!" designed by Evgeny Soloviev in 1959. (right) "Glory of the Space Heroes – Glory of the Soviet People!" by Boris Berezovsky, 1963.

Figure 1.4: Sergei Korolev, featured on a 1986 stamp.

SPUTNIK: THE OPENING SHOT OF THE SPACE RACE

When he returned from the IAC, Sedov reported back with the details of the announced American Vanguard program. Sergei Pavlovich Korolev – the genial and mysterious *Deus ex Machina* of the Soviet space program, with an innate initiative, drive and energy – soon suggested the ambitious project to launch the first artificial satellite to Khrushchev. **[**5**]** The Premier was excited about the idea of being able to "*overtake America*[5]."

Korolev had first raised the idea of space exploration with his government as far back as a meeting on April 30, 1955, but nothing had come of it. In an interview, the text of which was published after his death, Korolev recalled: "*We had followed closely the reports of preparations going on in the United States of America to launch a sputnik called, significantly, Vanguard. It seemed to some people at the time that it would be the first satellite in space. So, we then reckoned up what we were in a position to do, and we came to the conclusion that we could lift a good 100 kilograms (220 pounds) into orbit. We then put the idea to the Central*

[5] Korolev is often described as a man who favored a cautious, step-by-step approach to space exploration, but who was pressured by Khrushchev into staging space spectaculars to beat the Americans. Although the pressure from the Kremlin should certainly not be underestimated (starting after the launch of Sputnik 1, when Khrushchev realized the propaganda effect of space), Golovanov describes Korolev himself as a man almost obsessed with clinching space firsts. At one point, he even quotes Khrushchev's son as saying that the Soviet leader was somewhat vexed at Korolev's excessive urge to set space records. It was Korolev, not Khrushchev, who masterminded, up to a certain point, most of the spectacular space firsts.

Committee of the Party, where the reaction was: 'It's a very tempting idea. But we shall have to think it over.' In the summer of 1957, I was summoned to the Central Committee offices. The 'OK' had been given. That was how the first Sputnik was born." [6]

Unfortunately, the go-ahead came too late for what Korolev originally had in mind, because Mikhail Tikhonravov's satellite, Object-D[6], carrying many scientific instruments in the spirit of the IGY, was behind schedule. Now, a desperate race against time would begin. The R-7 rocket[7], capable of reaching orbital velocity, was almost ready, even though five out of its first six launch attempts had failed, but the same was not true of the heavy-duty satellite carrying several scientific instruments that Korolev and Tikhonravov were unofficially working on. However, sending *any* object into orbit would serve the political propaganda goals of the Soviet leadership, as long as it could announce its presence to the whole world. For this reason, and to save as much time as possible, Korolev decided to simplify the Sputnik down to basics, so that it would contain only a radio transmitter with sufficient power for even amateur radio enthusiasts to be able to track it. With the excellent collaboration of the equally brilliant Leonid Voskresensky, Korolev devised the new satellite configuration for an object that would simply be known as 'P.S.' (standing for 'Prosteishy Sputnik', or 'the Simplest Satellite'). The launch was scheduled for October 6, 1957.

When the program was announced for the 8th IAC, to be hosted in Barcelona, Spain, beginning on October 6, Korolev perceived that the Americans were about to launch their own satellite. He immediately cancelled some last-minute tests and moved up the launch of Sputnik by two days, to October 4.

The successful launch on that date saw the first man-made object accompany the Earth in its orbit around the Sun. The Soviet 'Sputnik' transmitted the first signals from orbit. The era of 'cosmonautics', as the Soviets called it, was inaugurated, and Sputnik became the first of a series of humiliations for the Americans in the early years of the space program.

Ironically, the great scientific cooperation that was called for to coordinate efforts to understand the mysteries of our world in the spirit of the International Geophysical Year (IGY) of 1957–58 was precisely what had triggered the political-technological rivalry between the two superpowers. Both were resolutely engaged in demonstrating to their citizens, allies and opponents that theirs was the most technologically advanced and militarily powerful nation. Just as

[6] 'Object D' (or D-1) was so named because it would be the fifth type of payload to be carried on an R-7 rocket. Objects A, B, V and G were designations for different nuclear warhead containers.

[7] An evolution of the ICBM developed in a forced cooperation with Valentin Glushko, for whom Korolev held a long-standing antipathy.

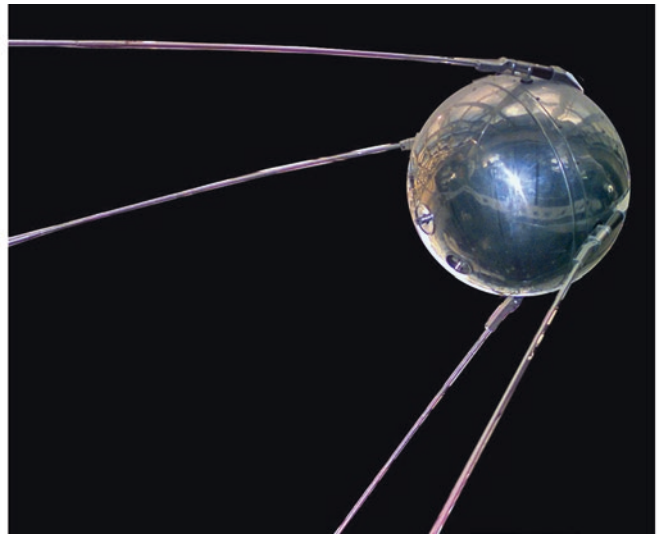

Figure 1.5: Sputnik (meaning 'traveling companion' in Russian) was a polished metal sphere with four long antennas. It was about 22 inches (56 cm) in diameter and weighed 184 pounds (83.6 kg), Circling the Earth every 98 minutes, it used a radio beacon that was able to pinpoint spots on the Earth's surface. Image © NASA-NSSDC

ironically, this momentous launch of the first artificial satellite in history, far from being the result of a well-planned strategy to demonstrate communist superiority over the West, was instead a spur-of-the-moment gamble, driven by the dream of one visionary scientist and iron-willed manager, who pressed the Kremlin to enter into an adventure which nobody desired and for which nobody felt the need.

After the successful completion of Sputnik's first orbit, Korolev called Soviet leader Nikita Khrushchev, who was in the Ukraine on military business, and reported the satellite's success. But nobody immediately grasped the importance of this event, which would mark a turning point in history. Khrushchev's son, Sergei, was in the Ukraine alongside his father at the time. He would recall later that they listened to the satellite's 'beep-beep' signal and went to bed. "*Sputnik's launch made the front page of Pravda but without banner headlines or enthusiastic comments,*" Sergei Khrushchev said in an interview in 2007. "*The story occupied the same amount of space as a report on Zhukov's visit to Yugoslavia but ran in a less prestigious position on the page. The reason was simple. My father and all the Soviet people thought that Sputnik's success was natural, and that, step-by-step, we were getting ahead of the Americans. After all, we – not the Americans – had opened the world's first nuclear power plant; our MiG jets set world records*

in the '50s, and the Soviet Tu-104 was the most efficient airliner of its class[8]*. So Sputnik did not surprise us. All of us saw that as just another accomplishment, showing that the Soviet economy and science were on the right track. A lot of popular books had been published in the Soviet Union about future space stations and flights to the Moon and Mars. Space travel seemed quite feasible, and the readers of those books – including me – looked forward to it. We just couldn't understand why the engineers were taking so long.*" [1]

The article in *Pravda* on October 5 was, indeed, positioned modestly in a right-hand column part way down on the first page. Titled routinely 'TASS Report', it succinctly detailed the facts of the launch in a few paragraphs, plainly explaining to readers what 'satellite' meant. Two days later, *Pravda* led with a banner headline quoting the global furor.

The unexpected launch of Sputnik had surprised the whole world. It surprised the incredulous Khrushchev, who had only dreamed of success in outpacing the Americans with the satellite, and certainly didn't expect its powerful effect and the Western consternation in response. It surprised the Soviet military and political leaders, who had always fought against the "*useless satellites*", fearing that such 'toys' would interfere with the major intercontinental missile projects and slow down the development of the R-7 ICBM. It took them several days to understand the extent of what had happened. It surprised the U.S. experts, who had always believed that this was a competition which the Americans would win hands down and were now disappointed by the perceived 'missile gap', when Intelligence reports had always claimed that American missile technology was far more advanced than that of the Soviets. Apparently, it also surprised the Eisenhower Administration, which had so far considered these activities as mere scientific experiments[9].

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[8] Experts and historians point out that the first nuclear power plant (Chicago Plant-1 or CP-1) was assembled and designed in the USA by Enrico Fermi on December 2, 1942. MiG jets were powered by unlicensed copies of the Rolls-Royce Nene engine which had been supplied by Great Britain. The De Havilland Comet, making its maiden flight in 1949, and the Boeing 707, the first widely-used jet airline, were the movers and shakers, not the Tu-104. The main reason the Tu-104 was the most efficient airliner of its class was because it was the *only* member of its class, a twin-engine airliner powered by Rolls-Royce Nene clones. (*theguardian.com* - accessed in February 2018)

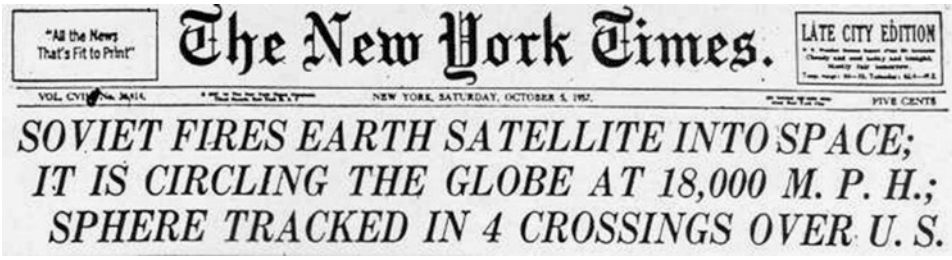
[9] The Sputnik crisis depicted President Eisenhower as passive and unconcerned. This led to bitter accusations of complacency and contributed to the election of John F. Kennedy, who emphasized the space gap and the role of the Eisenhower Administration in creating it. According to some historians, however, Eisenhower knew far more than he could publicly admit about the status of the Russian missile programs. On the basis of the secret U-2 surveillance intelligence, he knew that there *was* no missile gap, and had strategic reasons to support his 'Open Skies' policy. (see the following section on "*Explorer I: one of the main discoveries of IGY*", p. 27).

The Soviet satellite was now a nagging irritation in American heads, repeating its incessant 'beep-beep' signal – resembling the soundtrack of an early Mickey Mouse movie – and reminding the world of the USSR's accomplishment. [7] It created a perception of American weakness and a wider sense of insecurity and apprehension.

Pravda also published a description of Sputnik's orbit and the frequencies of the satellite's radio transmitters, like a kind of 'train timetable', to help people watch and hear it pass. The article failed to mention that the light seen moving across the sky was not the tiny orbiter, whose size meant it was invisible to the naked eye, but was in fact the huge second stage of the booster rocket which was in roughly the same orbit. Other than this article, information remained scarce. No technical details, no name of the location from which it was launched, and no interviews with the people involved.

Figure 1.6: The impact of Sputnik's passage over the United States sky caused reactions ranging from amazement and anger to panic. Newspapers gave the times that Sputnik would be passing overhead and instructions on how to locate it in the sky. TV also emphasized the event, as evidenced by the cover shown in Figure 1.7. Postmarked in Summers, Arkansas. (From the collection of Steve Durst, USA)

After Sputnik 1, the world would no longer be the same. Its impact on the United States and on the wider world was enormous and unprecedented. On the morning of October 5, the *New York Times* printed an unusual three-line head in half-inch capital letters, running full length across the front page (see Figure 1.7). In Great Britain, the *London Daily Mirror* proclaimed the birth of the "*Space Age*" in huge headlines. Almost immediately, two new phrases entered the language: 'pre-Sputnik' and 'post-Sputnik'. [8]


"All the News That's Fit to Print"

The New York Times.

LATE CITY EDITION

NEW YORK, SATURDAY, OCTOBER 5, 1957. FIVE CENTS

SOVIET FIRES EARTH SATELLITE INTO SPACE;
IT IS CIRCLING THE GLOBE AT 18,000 M. P. H.;
SPHERE TRACKED IN 4 CROSSINGS OVER U. S.

Figure 1.7: Unusual three-line head from the *New York Times* announcing the flight of Sputnik 1.

The Western world realized that the Soviet success was due to a modified intercontinental ballistic missile, and this was enough to assume Soviet military superiority and their lead in missile technology, as well as speculating apocalyptically on what the Russians might now do with their perceived capability of hitting any chosen target anywhere in the world.

The French daily *Le Figaro* led with the banner headline "*MYTH HAS BECOME REALITY: EARTH'S GRAVITY CONQUERED*" and went on to report the "*disillusion and bitter reflections of the Americans, (who) have had little experience with humiliation on the technical domain*." [9] In West Germany, a new name was coined for America's still unorbited Vanguard. They called it 'Spätnik', *spät* being the German word for 'late'. [10] The idea of a Soviet-made object orbiting the skies above continental America terrified ordinary Americans, who feared that, with this kind of technology, the next thing the 'Ivans' would be doing would be "*dropping nuclear bombs on them like rocks from a highway overpass*[10]." Building a backyard bomb shelter quickly became a cottage industry.

Western panic over the nuclear threat (covered by the most stringent secrecy, which only served to increase the level of panic) and the collective feeling of being at the mercy of powerful Soviet missiles and the target of direct nuclear attacks, led to that fascinating and, in some ways, worrying chapter of our recent history known

[10] On the other hand, the same fear was true for the Soviets. Shannon Lucid reported long conversations she had with Yuri Onufriyenko and Yuri Usachev during her record-setting expedition on the MIR in 1996 and concluded: "*After a while we realized we had all grown up with the same fear: an atomic war between our two countries. I had spent my grade school years living in terror of the Soviet Union. We practiced bomb drills in our classes, all of us crouching under our desks, never questioning why. Similarly, Onufriyenko and Usachev had grown up with the knowledge that U.S. bombers or missiles might zero in on their villages. After talking about our childhoods some more, we marveled at what an unlikely scenario had unfolded. Here we were, from countries that were sworn enemies a few years earlier. I was living on a Russian space station, working and socializing with a Russian air force officer and a Russian engineer. Just 10 years ago, such a plot line would have been deemed too implausible for anything but a science-fiction novel.*" (Cavallaro [2017] p. 70).

as 'The Space Race.' As Neil Armstrong called it, "*The most elaborate non-military competition in history. It is unlikely that the space race was the diversion which prevented war.*" Nevertheless, it *was* a diversion and provided an outlet to replace the 'brinkmanship' of the early 1950s that might well have led to armed conflict. [11] We can say that the 'Space Race' *sublimated* the Cold War and moved the competition between the two superpowers beyond our planet, to a crossroads where technology, armaments, science and fantasy crossed each other[11].

Soviet philately and propaganda

The launch of Sputnik initiated a clever new way of using stamps, for propaganda purposes. Once the Soviet Union grasped the importance of what had happened with the launch of Sputnik 1, space exploration became one of the favorite topics in Soviet philately for several years. During the late Fifties and the Sixties, the USSR issued more than 160 stamps with space topics, compared to just five stamps issued during the same period in the USA.

Because of how it is used, the postage stamp is widely circulated and goes from hand to hand and from town to town, reaching the farthest corners and provinces of a country, or indeed the world. The fact that it does not convey an obvious message enhances its peculiar effectiveness and makes it an ideal means for subliminally influencing public opinion. [12]

Philatelic propaganda reaches not only the recipient of the letter, but also everyone who handles that letter, starting with the individual who sends it. The envelope passes through many hands in the different postal offices and goes through many cities – and often through many countries – before reaching its final destination.

Advertising through the use of stamps is now an established practice, an effective and cheap way to spread a message far and wide. At some time, every nation has utilized its stamps to promote domestic products, vacation resorts and cultural achievements, or to advertise its industries.

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[11] As Boris Chertok – the brilliant engineer who designed most of Korolev's guidance systems – annotated in his book, the recurring early American humiliation by the USSR in space "*served to stimulate the beginning of competition on another plane, in a field that objectively led to the weakening of the positions of Cold War apologists. The historic paradox of cosmonautics was that the achievements of missile technology stimulated confrontation between the two superpowers, while the successes of the piloted space programs based on these achievements promoted rapprochement, cooperation, and a desire to exchange ideas and experience. The flights of our cosmonauts and American astronauts diverted a great deal of resources from weapons technology and did not contribute to meeting military challenges. Each new piloted flight around our shared planet objectively served as a call to unite and to reduce confrontation.*" (Chertok [2009], p. 79).

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Unquestionably, one of the key players in this regard was the Soviet Union. Once the Communists came to power, after the 1917 Revolution, they flooded the world with their stamps, almost invariably conveying the Soviet ideology and glorifying, in the most spectacular way, social and political milestones, such as the success of the Five Year Plans, or Soviet industrial achievements, the ideal citizens, workers, peasants and Red soldiers.

Particularly impressive were the stamps issued during WWII, vaunting its military power – especially its air force, infantry and navy – and showing pictures of Soviet forces in action; soldiers throwing grenades, sharpshooters, and planes destroying tanks.

Collectors and experts remark that old Soviet stamps quite often appear unused. Many of them have likely never been on sale in any Soviet post office but were distributed or sold by a special Soviet philatelic agency in Moscow to foreign buyers, as suggested by the high denomination of some of the most attractive stamps. There is no doubt that foreign markets were an important target. We know, for example, that the official commercial agency Mezhdunarodnaya Kniga, used duplicates of official Soviet postmarks to produce philatelic commemorative covers that had never been in an actual post office, or were never run through the mail service, for the foreign markets.

During the era of totalitarianism in the USSR (under the rule of Stalin), stamp collectors were looked upon suspiciously because they had too many contacts and knew too much about foreign countries, while philatelic societies (as with any other unofficial community) were considered as potentially counter-revolutionary organizations and enemies of the people. Accordingly, active collectors were often prosecuted and either sent into forced labor or killed, with their collections confiscated and sold to finance the rising Soviet military industry.

In the 1950s, things changed in USSR and a new generation of internal collectors appeared, but the main goal, especially at the beginning of the Cold War, was to influence its dependent Eastern European states, the Warsaw Pact satellites. Russia adopted the stance of having a superior space program – a ‘We’re the best’ approach – that guided 1950s and 1960s propaganda. The USSR adopted the same approach with Western countries, sometimes more successfully as happened in France, always a strong supporter of the Soviet Union.

Soviet philately and liability

Soviet launches were decided and prepared in the strictest secrecy, and this was especially true for the launch of Sputnik 1, the first ever launch into space. Even the Soviet Post Organization were not prepared for the event and it was more than one month later – on November 5, 1957 – before they were able to issue the first set of two Sputnik commemorative stamps featuring the orbit of the satellite. The text, in Cyrillic, read "*4 October 1957 – World's first artificial satellite of Earth.*"

Figure 1.8: Fake commemorative cover for Sputnik 1, with a backdated cancellation.

One collector then doctored his commemorative cover (see Figure 1.8) by backdating the cancellation, a misuse not unusual in the USSR at that time, in order to have a cover seemingly issued on November 4, 1957, exactly one month after the launch of Sputnik. This of course did not take into account the fact that the stamp had not been officially issued until the following day. The cover was also cancelled in Moscow and not in Tyura-Tam, where the Sputnik was launched from. That was because the secretive site was absolutely unknown at the time and would be kept as a state secret until Gagarin's flight in 1961 when, for reasons we will see, it would be named 'Baikonur' (see Chapter 2, p. 102 'Baikonur and Soviet lies.')

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Figure 1.9: Konstantin Tsiolkovsky, featured on a 1957 stamp.

Another commemorative stamp was put in circulation a few weeks later, on November 28, with the Cyrillic text "*4/10/57 – World Premiere: The First Soviet Artificial Satellite of Earth*" overprinted in black on the 40-Kopek stamp. The stamp had originally been issued back on October 7 (shortly after Sputnik's launch) in honor of the missile scientist Konstantin Tsiolkovsky. Unfortunately, many forged copies of this historic stamp exist on the market.

It is very hard to find covers "*cancelled at the exact site and on the exact date*" of the launch of a spacecraft – as prescribed by the rules of competitive astrophilately – from the USSR of the Cold War era. At that time, it was a rule to keep every piece of information related to the space program, including launches, absolutely secret until the authorities were certain about the success of the mission. This made it materially impossible to prepare envelopes or cancellations in advance, simply because there was no information available about a flight until it was all over.

The only information available, after the fact, was obtained from the stamps and from official postmarks issued after a considerable delay that gave – often in an emphatic tone – some vague idea of the spacecraft or the rockets and, for propaganda purposes, provided some data on missions, trajectories and so on.

Thus, while commemorative covers that celebrate anniversaries of space events are normally to be avoided in competitive astrophilately, for the early phases of the Soviet space program up to 1975, items that celebrate subsequent recurrences such as the 1000th or 3000th or 10,000th orbit of a satellite are often the only, somewhat belated, witnesses to these first space conquests.

The 'French' fakes. [13]

In retrospect, it has to be said that as far as the early Soviet space program is concerned, there are grounds to be suspicious of any items that fulfil astrophilately rules by bearing the exact date of a specific space event. The secrecy of the Soviet space program and the total unavailability of information made it virtually impossible for collectors to produce covers or cards in time to document the events on the same day that they happened.

Years later, however, that same secrecy and unavailability of information allowed unscrupulous individuals to invent plausible and attractive covers that were supposedly issued by the Soviets as 'witness' to the early phases of the Space Race. Thanks to the total lack of official data, nobody at that time would have been able to challenge the authenticity of those suspected forgeries, and therefore they sold successfully for years. Nobody really knows about the origin of those fakes that, in their own way, commemorated the Soviet space program between 1957 and the mid Seventies.

The 1985 catalogue *C.O.S.M.O.S. Catalogue des Oblitèrations Spèciale et des Marques Officielles Spatiales* (6th Edition) – issued by Lollini, the French dealer of Space Philately – listed 300 of these 'vintage' Baikonur-Karaganda covers, as it called them. The number of forged covers continued to grow year after year, and they numbered 397 in the 7th Edition of the same catalogue (1994). The 8th Edition (1998) devoted 18 full-color pages to the "*old cancel covers*" (from page 299 to page 316), offering 400 quite expensive 'junk' covers to naive collectors. At that time, the 'commemorative' Sputnik 1 and Sputnik 2 covers were already sold out and the oldest items available were the covers for Sputnik 3, priced at $833 U.S. each.

It is possible to find a 'commemorative cover' for virtually every early Soviet space event, cancelled in the fictitious post office of Baikonur-Karaganda exactly on the day of that event. These covers were made out of an unusual semi-glossy paper, in an unconventional format that was smaller than the typical Soviet covers at the time (165 x 91 mm, which in the Lollini catalogue was named "*international format*" [14]). Everything about them – in particular the postmark – is forged.

Usually such covers carry tirage (printing), which is normally "*150*" for each cachet (sometimes only "*100*" or "*50*", as much as such figures could be meaningful or reliable), and an individual serial number. On this basis, it is easy to calculate that the family of Baikonur-Karaganda fakes should be quite significant globally and encompass no less than 58,000 items. There isn't a complete list, however, and it is entirely likely that the total number of such forgeries is actually considerably greater.

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Alas, these fake Soviet covers are very prolific and so widely spread that it is hard to find a space collector who doesn't hold at least one of them in their collection. Paul Bulver noted in his book that he asked for clarification of these covers in 1972. [15] The French dealer replied that he was "*absolutely sure that the black cancel with date has been affixed by the local post-office of the town Baikonur*." He added, "*I wrote, already several years ago, to the Central Post-Office of Moscow, and they gave me confirmation of this fact*," although when he was asked to provide proof of such a letter, the dealer stated that he had lost it. [16]

It was not until cooperation began between the USSR and the USA during the Apollo-Soyuz Test Project (ASTP) that verifiable data began to surface. In particular, it was established that no Baikonur-Karaganda post office had ever existed.

Figure 1.10: Fake Sputnik 1 commemorative cover with cancellation of Baikonur-Karaganda, on October 4, 1957.

How unlikely it is for a commemorative cover issued for the launch of Sputnik 1, like the one shown in Figure 1.10, to exist is immediately clear when one realizes the degree of absolute secrecy under which the early Soviet space program developed, especially during the first decade. As already mentioned, no collector could know in advance about the launches, nor would anyone be able to prepare commemorative covers in time. Most importantly, nobody could possibly have covers cancelled at the location of the launch since – for many years – the site was treated as a State secret (even though the American U-2 spy planes had pinpointed the R-7 launch pad in June 1957).

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The American collector Ray Cartier has referred to a casual encounter which happened during the *Pacific 97* meeting between his colleague Les Winick, himself a collector of space memorabilia, and Professor Oleg Vaisberg from Russian Science Academy. [17] Professor Vaisberg revealed that the fakes had been produced in Moscow by Boris Korichev (who passed away in the early 1980s), "*who had then sold them to a Frenchman*." I discussed this topic with a renowned expert of Russian fakes, who told me that it was difficult to believe this story. As he explained to me, philately was used in the USSR as a strategic propaganda factor and it is unlikely that a 'business' of this size, if it originated in the USSR, would escape the attentions of the KGB. They KGB, who had a special Philatelic Commission and, as everyone knows, kept a very strict control over territory.

The notorious Baikonur-Karaganda postmark exists in two different versions: Type 'A' (the most popular one) and Type 'B'. The main peculiarity of the Type 'A' is the 'α' below the date, between the date bridge and the external crown. In Type 'B', the letter is replaced with a '*b*' in the same position. The shapes of the letters and digits in the two postmarks are significantly different.

Figure 1.11: Cover and cancellation for Baikonur-Karaganda fake Type 'A' (above) and 'B' (below).

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