

Sputnik-1: the USSR-USA space race, ignited in Italy by IAC

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September 1956. For the first time ever an artificial satellite is featured on a stamp, the Italian issue designed by Corrado Manciola, to mark the 7th IAC (*International Astronautical Congress*) that that year was hosted in Rome from 17th to 22nd September.

The Congress is organized by IAF, the International Astronautical Federation, a non-governmental international organization, born with the first IAC held in Paris back in 1950. The travelling meeting in 1956 is hosted by the Italian Rocket Association (Associazione Italiana Razzi), headed by Prof. Gen. Crocco.

The topic of IAC-7 is the artificial unmanned satellite “a *first step towards sidereal space*” as newspapers herald. The congress is attended by almost 400 delegates coming from the 20 national astronautical societies participating



in IAF. Also the Soviet Astronautical Society is invited with observer status.

A year before, the Soviet Delegation, during the IAC-6 held in Copenhagen, had announced a plan to launch a manmade object during the International Geophysical Year that would last from July 1, 1957, to December 31, 1958, in correspondence with the maximum activity of the Sun’s eleven-year cycle.

Quite coincidentally American President Dwight D. Eisenhower had issued a similar



statement a few weeks earlier: the first American satellite programme would be called Vanguard.

Half a dozen US scientists circulate, during the Congress in Rome, to illustrate in great detail the American plan. It turns out that in addition the UK, France, Netherlands, and USSR were all preparing their own satellites. It exposes a gentle scientific competition that until then had been played out in the greatest secrecy, although no one gives credit to the vague pronouncements of a possible launch by Leonid Sedov, the head of the Soviet delegation, whose statement is effectively under-valued and all but ignored. Everybody knows that the United States will launch the world’s first satellite !!



Leonid Sedov, university professor and member of the Soviet Academy of Sciences with no direct

connection or contact to the space programme would enjoy great notoriety and would become a figure-head, presented to the Western media as a guiding force of the Soviet satellite programme, while the infant Soviet space programme was in fact controlled with an iron fist by the military and Sedov's Commission had little real authority and virtually no contact with it. Sedov, who is allowed to travel outside the Soviet Countries to represent the USSR, would be undeservedly credited the successes obtained with Sputnik, Lunik and Vostok by the mysterious "Chief Designer", Sergey Korolev, whose identity is instead kept as a state secret until his death. Though Sputnik's launch in 1957 had become the talking point of the entire world, no one has a clue as to who its chief designer is. "At that time, nobody knew the name 'Sergei Korolev'; it was classified," revealed in an interview Sergei Khrushchev, son of Soviet Premier Nikita¹.

Korolev would not be allowed to travel abroad or 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 in no less an important publication as *Pravda* – the Communist Party's daily newspaper – but under the pseudonym of "Professor K. Sergeyev" or "Konstantinov". Khrushchev always carefully kept him far 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 it, 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 Khrushchev², instead, the concern of his father Nikita wasn't confidentiality or country's security.

"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 let them waste their efforts trying to uncover "non-secret" secrets, and as for real secrets, the enemy's arms were too short to reach them." On the other hand the real concern of Khrushchev was that Korolev was the head of council of chief designers, in charge of all space projects, but he knew that the others were ambitious and jealous like actors; they considered themselves no less significant and would all have been madly jealous if Korolev alone received such publicity. After the launch of Sputnik all of them (including Korolev, Glushko, Chelomei, Tikhonravov, Keldysh, Mishin, Chertok, Voskresensky, etc) were each awarded the Lenin Prize and other Soviet honours. *"If the Nobel prize went only to Korolev, my father thought the members would get upset"* and that the team would simply disintegrate, and with it, the hopes of 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 there were other more subtle reasons, as Anatoli Fedoseyev explains³: *"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"*.



Korolev in a stamp of 1969

So, in his reply to the Nobel committee, the Premier said that all the Soviet people had contributed to the project and that every Soviet citizen deserved the award. *"And the Nobel prize went to*

¹ Sergei Khrushchev, "We Shocked the World - Nikita Khrushchev's son recalls the night Sputnik made history." In www.airspacemag.com

² Sergei Khrushchev, "How Russia lost the moon" in *The Guardian* (October 2, 2007) www.theguardian.com

³ See Vladimirov, p. 7

somebody else". Be that as it may, Khrushchev deprived the Sputnik creator from the highest honour in the field of science and, of course, Sergei Korolev felt deeply hurt. The price of technological success in the Soviet Union of the 50s and 60s was to disappear from public view.

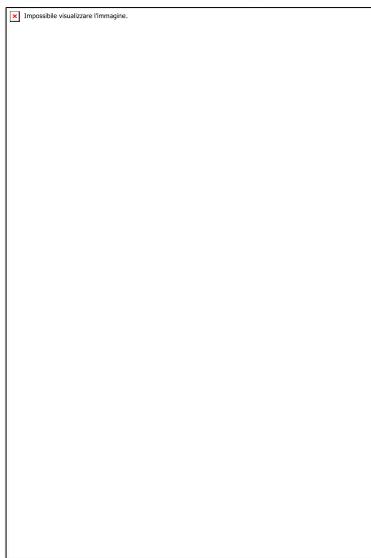
Korolev's daughter, Natalya, recalled in a book that the veil of secrecy vexed her father all during his life. "*We are like miners - we work underground,*" she recalls him saying. "*No one sees or hears us.*"⁴ The man who could pick up the phone to call Nikita Khrushchev and could humiliate the mighty United States of America was condemned to be a



Korolev in a stamp of 1986

faceless nonentity : the Soviet Union and the rest of the world would learn his name only after his death in 1966.

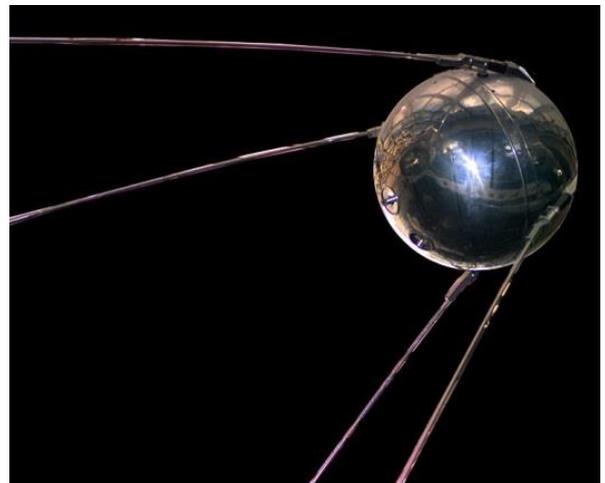
Sputnik: The Space Race's Opening Shot



Sedov, returning from the IAC, reports the details of the announced American Vanguard programme. Then, it is Sergei Pavlovich Korolev – the genial and mysterious *deus ex machina* of the Soviet space programme – to suggest to Khrushchev, who is excited of the idea of being able to "overtake America", the ambitious project to launch the first artificial satellite.

In an interview the text of which was published posthumously Korolev recalled: "*We had followed closely the reports of preparations going on in the USA 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 kilogrammes (220 lbs) into orbit. We then put the idea to the Central 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 'O.K.' had been given. That was how the first sputnik was born. It went into orbit without a permit."⁵



It's far too late for what the "Chief Designer" had in mind originally for the first Soviet satellite launch and there now commences a desperate race against time. The R7 rocket, capable of reaching orbital velocity (an evolution of the ICBM developed in a forced co-operation with Glushko, with whom Korolev has scores to settle) is almost ready. But the same is not true for the heavy-duty satellite carrying several scientific instruments, which Korolev was unofficially working on. However for the political propaganda purpose, which is the main interest of the Party, it is enough to bring to orbit *any object*, as long as it can announce its presence to the whole world. For this reason Korolev decides that, to save every minute of time, the sputnik must be as simple as possible and will contain only a radio transmitter with sufficient power, so that even amateur radio

⁴ Associated Press, *foxnews.com*

⁵ Vladimirov, p. 56

enthusiasts could track it. With the excellent collaboration of the equally genius Voskresenky, he radically strips down the satellite's equipment and so it becomes known as 'P.S.' standing for "Prosteishiy Sputnik" ("the Simplest Sputnik").

The launch is scheduled for October 6, 1957.

When it is announced the programme for the coming 8th IAC, to be opened in Barcelona, Spain on October 6th. Korolev perceives that Americans are about to launch their satellite. He immediately cancels some last-minute tests and moves up the launch of Sputnik by two days, to October 4th.

Thus for the first time a man-made object accompanies the Earth in its orbit around the sun. And it is the Soviet "Sputnik" (in Russian "fellow traveller"), not the American Vanguard. The era of "cosmonautics", as the Soviets call it, is inaugurated, providing the first of several humiliations of the Americans.

Ironically, it has been precisely the international scientific cooperation to study the mysteries of Earth and Universe in the spirit of the International Geophysical Year (IGY) of 1957-58, that has triggered the political-technological rivalry between the two superpowers resolutely engaged, in demonstrating to their citizens, allies and opponents, which is the most technologically advanced and militarily powerful nation.

Also 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, is instead a spur-of-the-moment gamble, driven by the dream of one visionary scientist and iron-willed manager, who presses the Kremlin to enter into an adventure which nobody desires and for which nobody feels the need

After the launch – actually after the successful completion of its first orbit – Korolev calls Soviet leader Nikita Khrushchev, who is in Ukraine on military business, and reports the success. But nobody immediately grasps the importance of this event that would mark a turning point in history. Khrushchev's son, Sergei, who at that moment is alongside his father, would recall later that they listened to the satellite's beep-beep 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.⁶ So Sputnik did not surprise us. All of us saw that as just yet 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."⁷

Only two days later *Pravda* offers a banner headline, quoting the global furore. The unexpected launch of Sputnik surprises the whole world.

It particularly surprises the incredulous Premier Khrushchev who can't believe that he would succeed outpacing the Americans with the satellite, and didn't expect such Western consternation.

It surprises the Soviet leaders who tolerated the Korolev project provided it did not interfere with

⁶ 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 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 only reason the Tu-104 was the most efficient airliner of its class, was it was the only member of its class, a twin engined airliner powered by Rolls-Royce Nene clones. (Sergei Khrushchev, theguardian.com)

⁷ Sergei Khrushchev, airspacemag.com

the major intercontinental missile projects: and they take several days to understand the extent of what has just happened.

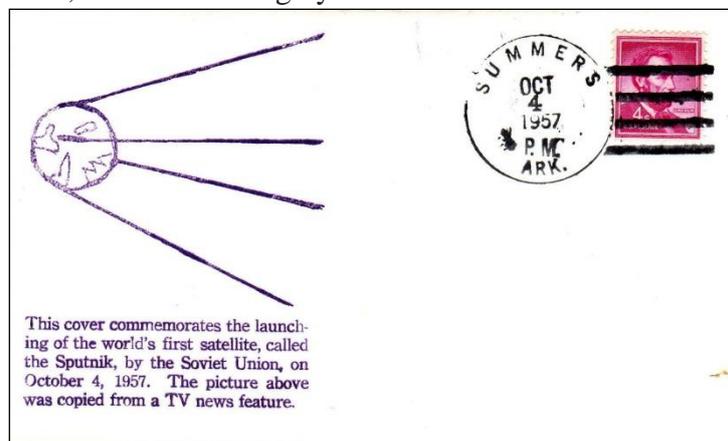
It surprises both the Soviet and American military summits that had always fought against the useless “toy” satellites.

It surprises the Eisenhower Administration that had so far considered these activities as mere scientific experiments⁸.

It surprises US experts who are now disappointed by suddenly realising the "missile gap" while Intelligence's reports have always claimed that American missile technology is far more advanced than that of the USSR.

And now the Soviet satellite is like an earworm in their heads, repeating its meaningless deep beep-beep over and over again, and creating a perception of American weakness and a wide sense of insecurity and apprehension.

Pravda also publishes a description of Sputnik's orbit and the frequencies of the satellites' radio transmitters to help people watch it pass. The article doesn't mention that the light seen moving across the sky is not the tiny orbiter, which as such is *invisible* to the naked eye, but the huge second stage of the booster rocket, which is in roughly the same orbit.



The impact of Sputnik's passage over the United States sky causes reactions ranging from amazement and anger, to panic. Newspapers give Sputnik overhead-passing times and instructions to locate it in the sky, and also TV gives great emphasis to the event, as evidenced by the above cover made in Arkansas [from the Steve Durst Collection, USA]

After Sputnik the world would no longer be the same. Its impact on the USA and on the world is enormous and unprecedented. The Western world realizes that the Soviet success is due to a modified intercontinental ballistic missile, which could do other things (!) and this is enough to take for granted the Soviet military and technological superiority.

Western panic of the nuclear threat, covered by the most stringent secrecy which contributes

⁸ The Sputnik crisis depicted President Eisenhower as passive and unconcerned. And 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 programmes, and he knew there was no missile gap.

He was committed to avert nuclear war at a time when the threat was very real. White House, Central Intelligence Agency, Air Force, and a few highly select and trustworthy defense contractors were creating a spy satellite that was so secret that only a few dozen people knew of it. Even its name, Corona, was kept secret for many years. And Eisenhower was much more interested in launching surveillance satellites that could tell American intelligence where every Soviet missile was located. Instead of being concerned with winning the first round of the space race, he accepted therefore the launch of Sputnik to help establish the principle of "freedom of space", i.e. the idea that outer space belonged to everyone, thereby allowing satellite flights over foreign countries. His concern for national security took precedence over any concerns about beating the Russians into Earth orbit.

expanding its reach and the collective feeling of being at the mercy of powerful Soviet missiles, and the target of direct nuclear attacks lead to that fascinating and, in some ways, worrying chapter of our recent history known as “The Space Race” – one of the most spectacular and engrossing aspects of the Cold War, which moves the competition between the two superpowers beyond our planet, to a crossroads where technology, armaments, science and fantasy meet.

Philately as propaganda

The launch of Sputnik inaugurates a clever new way of using stamps for propaganda purposes. Better still, once Soviet Union grasps the importance of what had happened with the launch of Sputnik-1 space exploration becomes for years one of the favourite topics in Soviet philately.

The postage stamp, by its nature, is widely circulated and goes from hand to hand and 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 as an ideal means for subliminally influencing public opinion⁹.

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

Advertising through stamps is now an established practice: an effective and cheap way to spread a message far and wide. During the years every nation has utilized its stamps at one time or another to promote domestic products, vacation resorts, cultural achievements or to advertise its industries.

But unquestionably one of the key players in this regard is the Soviet Union. Since the Communists were firmly in power, after the 1917 Revolution, they flooded the world with their stamps almost invariably glorifying in the most spectacular way social and political milestones like the success of the Five Year Plans or Soviet industrial achievements, 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, planes destroying tanks.

Collectors and experts remark that quite often old Soviet stamps appear unused and 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 most appealing stamps. For sure 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 for the foreign markets philatelic commemorative covers that had never been in a real post office or were never run through the mail service.

After all, 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, and philatelic societies (as any other unofficial community) were considered as potentially counter-revolutionary organizations and enemies of the people. Accordingly, active collectors were prosecuted and went either to forced labour or were killed, and their collections were confiscated and sold to finance the rising Soviet military industry.

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

⁹ See Stoetzer, Carlos, “*Postage Stamps As Propaganda*”

Soviet Philately and Liability

Soviet manned and unmanned launches were decided and prepared in the strictest secrecy. And this was especially true for the first one. Obviously even Soviet Post were not prepared for the event and only more than one month later, on November 5th, were they able to issue the first set of two Sputnik commemorative stamps featuring the orbit of Sputnik with the text, in Cyrillic “4 October 1957 - first Soviet artificial satellite in Earth Orbit”.

Some collector prepared then his commemorative cover (see above) by backdating the cancellation, according to a misuse not unusual in the USSR of those times, in order to have a cover issued on November 4th 1957, exactly one month after the launch of Sputnik, without considering that on that day the stamp still didn't exist, as it was actually issued only on the following day. Of course the cover is cancelled in Moscow and not in Tyuratam where the Sputnik was launched. The secretive site was absolutely unknown at the time and would be kept as a state secret until Gagarin's flight when, for reasons we will see, it would be named "Baikonur".

In the USSR of the Cold War it's 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. At that time it was a rule to keep as a state secret every piece of information related to the space programme, including launches, until the Authorities were certain about the success of the mission. This made it materially impossible to prepare envelopes or cancellations in time, simply as there was no information until it was all over. And this, as seen, was particularly true for Sputnik.

Before the mid-seventies virtually no technical information on space programmes was available. The only information, as reliable as it was, was obtained from the stamps and from official postmarks that – with a considerable delay and often in an emphatic tone – provided some vague idea of how were the spacecraft or the rockets and, for propaganda purposes, gave some data on Missions, trajectories, etc.

Thus, while in competitive astrophilately, commemorative covers that celebrate anniversaries of spatial events are normally to be avoided, for the Soviet events until 1975 the commemorative items and those that celebrate recurrences such as the 1000th or 10,000th orbit of a satellite, though "late", they are often the only witnesses to these first Soviet space conquests.

Another commemorative stamp is 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 already issued back on October 7. of that year (casually shortly after Sputnik's launch) in honour of the Missile scientist Tsiolkovsky. Unfortunately many forged copies of this historical stamp exist on the market.

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