

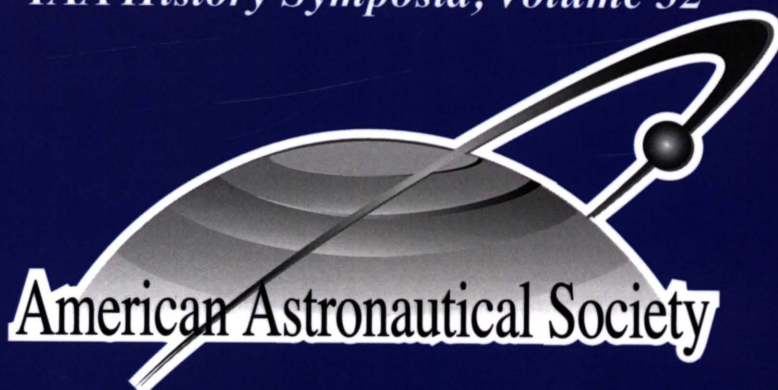
# History of Rocketry and Astronautics

Niklas Reinke, Editor



**AAS History Series, Volume 43**

*IAA History Symposia, Volume 32*



**American Astronautical Society**



# **History of Rocketry and Astronautics**

**AAS History Series, Volume 43  
International Academy of Astronautics Symposia**

### **Front Cover Illustration:**

Alexandre Ananoff seated at his desk, circa late 1940s. Credit: Collection Histoires d'espace.

Born in 1910 in Tbilisi, Georgia, the Russian-French space enthusiast Alexandre Ananoff is known for being the organizer of the first International Astronautical Congress at la Sorbonne, Paris, in September–October 1950, in addition to authoring the famous book *L'Astronautique* (1950) and advising fellow author Hergé for his comic adventures of Tintin on the Moon. Ananoff was a real ambassador for space, probably the first such person in France. He built up a unique collection of books and novels about space travel, wrote dozens of articles, gave numerous lectures, and corresponded with most of the space pioneers around the world. However, he was criticized as being an autodidact, and he was very disappointed by the lack of consideration within his own country. After the launch of Sputnik he progressively stopped his space activities to become a specialist of the 18th century French painters. He published his *Memoirs of an Astronaut* in 1978 and gave a last lecture at IAC in September 1979. He died in Paris on 25 December 1992, age 82.

# **History of Rocketry and Astronautics**

**Proceedings of the Forty-Sixth History Symposium of  
the International Academy of Astronautics**

**Naples, Italy, 2012**

**Niklas Reinke, Volume Editor**

**Rick W. Sturdevant, Series Editor**

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## Chapter 1

# Alexandre Ananoff (1910–1992): Thirty Years to Promote Astronautics before Sputnik\*

Philippe Varnoteaux<sup>†</sup> and Pierre-François Mouriaux<sup>‡</sup>

### Abstract

The year 2012 marks the 20th anniversary of Alexandre Ananoff's death.

Born in 1910 in Tbilisi, Georgia, the Russian–French space enthusiast Alexandre Ananoff is known for being the organizer of the first International Astronautical Congress at La Sorbonne, Paris, in September–October 1950, as well for authoring the famous book *L'Astronautique* (1950) and advising fellow author Hergé for his cartoon adventures of *Tintin on the Moon*. The purpose of this chapter is to give an overview of his complete works to promote space, from his first public presentations after discovering the works of Tsiolkovsky in the late 1920s to his analysis of the first Sputnik launch in the popular French magazine *Paris Match* in 1957.

Alexandre Ananoff was a real ambassador for space and probably the first in France to be one. He built a unique collection of books and novels about space travel (donated before his death to the French Air and Space Museum of Paris—Le Bourget), wrote dozens of articles, gave numerous lectures and corresponded

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with most of the space pioneers around the world. However, he was criticized to be an autodidact. He was very disappointed by the lack of consideration within his own country. After the Sputnik launch, he progressively stopped his space activities to become a specialist of the eighteenth-century French painters. He published his *Memoirs of an Astronaut* in 1978 and gave a last lecture at an IAC in September 1979. He died in Paris on 25 December 1992, aged 82. His last wish was that his ashes could be sent to the Moon, the goal of all his efforts.

### **Childhood and Arrival in France (1910–1921)**

Alexandre Ananoff was born on 7 April 1910, at Tbilisi, Georgia. Since 1801, this small country located between Europe and Asia was under the domination of the Russian Empire.

Alexandre's father, Mirham Ananoff, was an important producer of wood and wines such as "Champagne." Part of his production was sold in France. Mirham Ananoff was in contact with a French winemaker who regularly visited the family. Mirham Ananoff's wife, Marguerite, from Polish origin, was a housewife.

Just before the First World War, the country's situation was not stable. Unrest was increasing and Mirham Ananoff was even kidnapped but, since he was a respected man and considered good, he was released against ransom. This situation became even worst with the war and the October Revolution of 1917. Mirham Ananoff then decided to leave the country with his wife and son.

The Ananoff family fled Russia by train, hiding under benches. They arrived at Constantinople in Turkey and took the Orient Express to reach Germany through Austria–Hungary. They stayed two years in the empire of the Hohenzollerns, until the end of the conflict. Thus Alexandre was able to learn German. In 1921, the family could finally settle in Paris. They first lived from the money they saved in Georgia. After a few years Mirham Ananoff had to do small jobs and the family was forced to move several times, each time for a place with a lower rental fee.

Naturalized French, Alexandre Ananoff quickly learned and mastered the French language. His classmates were three or four years older than he was, and he consequently suffered from school failure. Then the young man had to find work to sustain for his needs and those of his parents.



## The Discovery of Astronautics (1928)

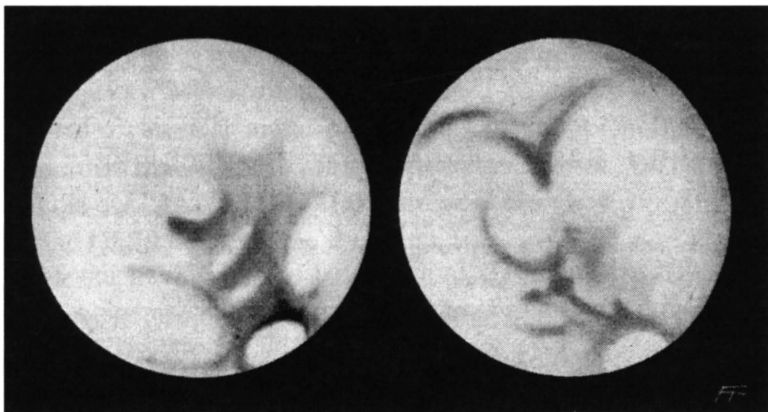
Alexandre Ananoff first discovered astronomy, at the age of 17. “Nothing drove me especially to the sciences,” he said. “Jules Verne just interested me, no more, as any child. Camille Flammarion’s works led me to astronomy.” In the chapter devoted to memories of his debut, he wrote:

This is astronomy first which awoke in me the appetite for space. When I was looking to the Moon behind an observatory’s telescope, I was hovering over crevasses where I felt like disappearing, I was very close to the huge shadows drawn by mountains. The show transported me into another world that has nothing imaginary, but real, and to which I was drawn.

Ananoff then tried to learn more and master technical domains, such as mathematics and cosmography. He read, inquired and even took lessons: “I took classes professed by Ernest Esclangon, in La Sorbonne, which were especially about mathematics,” remembered Alexandre Ananoff.

But since I did not have much money, I arrived five minutes after the start of the course and I went back five minutes before the end of the course, so that nobody could question me. Subsequently, I met him [and we became] very good friends.

Ananoff had become a “passionate autodidact,” driven by the desire to learn and his curiosity.



**Figure 1–1:** Mars in 1933. Drawings by A. Ananoff. Credit: *Bulletin de la Société Astronomique de France*, recueil de l’année 1933.

The young man joined the Société Astronomique de France (SAF) and frequented its library. One day, he stumbled upon a work of Konstantin Tsiolkovsky. It was a revelation, as Ananoff said: “Luck put me in the presence of a book by Tziolkowksy and reading it awakened in me the desire to be useful to

the cause that is now mine.” He then consulted other books on the subject (Yakov Perelman or even Nicolas Rynine) and wrote to the authors. He soon received an answer from Tsiolkovsky, who encouraged him and gave some advice. Exchanges would last until the death of the Russian scientist in 1935.

Alexandre Ananoff had become an astronaut, that is to say, one of those who “before Gagarin, worked to lay the foundations of space travel or effectively contributed to its growth.” His task was then as follows. Ananoff said,

to alert the public to interplanetary travel, bring competent people to take an interest in them; complete the building of Astronautics with the addition of new knowledge, and provide the most France, against his will if necessary, a French Astronautics, solely that she might in the future play a role among other nations. Finally, it should never lose sight of that Astronautics also had to be international and peaceful.

On 8 June 1927, Alexandre Ananoff attended the famous lecture of Robert Esnault-Pelterie at the University of La Sorbonne called “L’Exploration par fusées de la très haute atmosphere et la possibilité des voyages interplanétaires” (“The exploration of the upper atmosphere by rockets and the possibility of interplanetary travels”). He learned about the existence of German work on rockets, including Hermann Oberth, and saw his passion growing.

For many years, Ananoff would try to meet Esnault-Pelterie. He would finally reach to have an appointment with the French specialist at his office in Boulogne-sur-Seine on 20 September 1936. But the meeting would be very short and unfriendly. Ananoff would retain some bitterness: “I wanted to know that man,” he wrote bitterly. “It was too bad for me.”

### **First Lectures, Correspondences and Constitution of a Complete Documentation (1928–1933)**

Very soon, Alexandre Ananoff wanted to share his vision: “My desire to communicate with others was almost instantaneous,” remembered Ananoff.

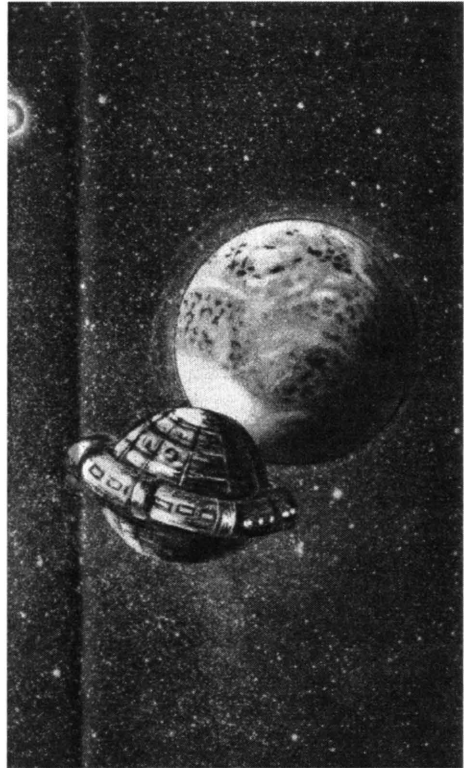
I felt the need to make presentations, lectures, articles... I was 18, a lot of enthusiasm and passion for what I was doing, blind faith in the success of Astronautics, with an overwhelming desire to share my faith with others.

Thus Alexandre Ananoff informed the Secretary General of the Astronomical Society of France, Ms. Gabrielle Camille Flammarion, about his intentions. She replied in substance: “We do not know what you’re worth and do not know your seriousness... Nevertheless, we accept to give you a speaking slot, provided you already have done a lecture.” Claiming a first experience outside Paris, the young man could speak on interplanetary navigation on 3 September

1929, in the “attic” of the Society, rue Serpente in Paris. This surprising lecture had some success, even though the idea of traveling to the Moon couldn’t be seriously considered at the moment.

**Figure 1–2:** Project of an artificial planet drawn by A. Ananoff in 1929. Credit: DR.

Ananoff started to collect “everything near and far related to the rocket, the jet and interplanetary travel, even the cartoons, which appeared from time to time in the general press.” But his “best documentation” would be the correspondence, exchange of documents and books with a multitude of specialists in astronautics worldwide. Thus, the “astronaut” was proud to say: “When I started in Astronautics, not an article, not a lecture, not a person interested in



the same problem as I did were unknown to me.” “Concerning the French articles [on the subject], I think I have all of them, at least since 1927.”

In April 1934, Ms. Flammarion suggested Ananoff contact Ary Sternfeld (then stationed at the University of Nancy) and put Ananoff in contact with André-Louis Hirsch (on Hirsch’s request), a French banker who strongly supported astronautics. Ananoff would have regular meetings with Sternfeld before he left for the USSR; Hirsch would constantly support Ananoff and was also a wise counselor.

Between 1931 and 1936, the young man multiplied interventions on astronautics within the Société Astronomique de France. His enthusiasm and investment were regularly identified in the activity reports of the SAF. In 1935, he received the eleventh Prix Observatory Guette, an annual prize awarded by the Society and to encourage young people showing an interest for astronomy.

However, Ananoff’s lectures at the Society stopped at the end of 1936 when Madame Flammarion announced that monthly conferences would have to be made only by astronomers “who started in astronomy” in 1937 (the fiftieth anniversary of the Society).

## **The First Publications (1933–1936)**

In 1933, Alexandre Ananoff planned to publish the proceedings of his conferences but he struggled to find funding. During an internship in Larousse's factory in Montrouge, he printed his first brochure, titled "Le Grand problème des voyages interplanétaires" ("The big problem for interplanetary travel"), thanks to the understanding of Jacques Moreau, head of the printer. "This booklet was the first of its kind, made only in 30 copies. This exercise served me and allowed me to improve my education," considered Ananoff.

It seems that the magazine *Hebdo* was the first to publish an article from Ananoff on 22 June 1934: "Irons-nous dans les astres?" ("Shall we go to the stars?") Ananoff was 24 years old.

On 1 and 8 April 1935, he gave a two-part conference on "La Navigation interplanétaire" ("The interplanetary navigation") to the members of the Société Astronomique de France and published it in the August–September issues of the Society bulletin, *L'Astronomie*. He then received many letters, which were a testimony of the interest of the public in astronautics. But he still had difficulties to find funding to edit a new brochure. At least, André-Louis Hirsch gave him an advance for a period of one year and all the copies were sold within a single month.

These little difficulties did not affect, however, the enthusiasm of the young man. On the contrary, Ananoff had a complicated character and might sometimes be stubborn. His son said, "My father was a person who knew what he wanted. When he had an idea in mind, no one could take it away!"

At this time Ananoff Alexandre worked in the education department of Larousse editor. He had just met Yvonne (called by her middle name, Odette), a singer of the Opéra comique, born in 1915. They got married in 1938 and settled in Paris, avenue Mozart.

## **The Exhibition in the Palais de la Découverte (1937)**

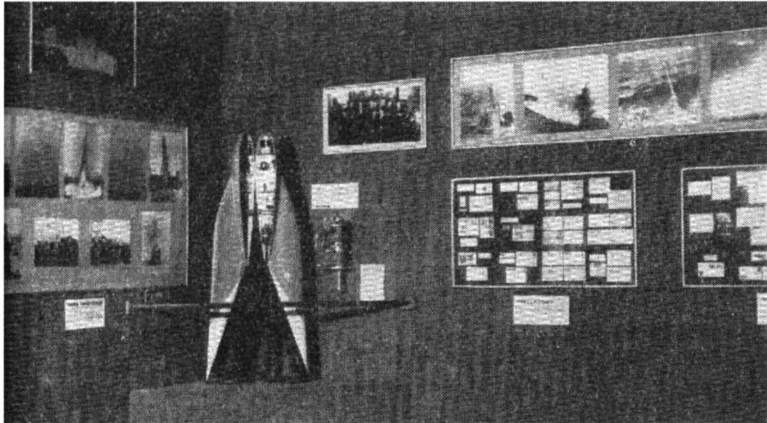
At the end of 1936, the reputation of Alexandre Ananoff was growing. The director of the Palais de la Découverte in Paris, Andre Leveille, asked him to contribute to the first "Astronautics Exhibition" to be opened in July 1937, during the Universal Exhibition of Paris of the "Arts and techniques of modern life." Despite the presence of some unreleased material (including some provided by Robert Goddard in November 1936), the exhibition was rather modest:

We displayed cutaway rocket, which was sent to us from the United States, one hundred stamped envelopes launched with postal rockets in Austria in

1931, and photographic enlargements showing the Oberth spacecraft, the Hohmann cosmic trajectories and a number of German experiences which, at this time, were popular.

But Ananoff considers the event as a foundation because it finally placed “the problem of Astronautics at the general public.” For him, Leveille has done “at this time, an act of courage.”

The exhibition ran from 10 July to 25 November 1937. Ananoff gave more than 100 lectures on science (at least once every other day), and half of them on the theme of space travel. Among the audience, a young bachelor was totally captivated: Albert Ducrocq.



**Figure 1–3:** The first exhibition on Astronautics in the Palais de la Découverte. Credit: Photo A. Ananoff.

### **The First Astronautical Section (1938)**

Alexandre Ananoff continued his outreach throughout the years 1937–1939 with numerous lectures and articles about rockets, space history and space travel. He hoped that the French citizens would get more aware about astronautics.

He followed the works of engineers all over the world: Russians, Americans and Germans, of course—except the works of Wernher von Braun—but also Austrians, English, Italians, and Czechs. Concerning France, he regretted that only theoretical and laboratory experiments were done (mostly those of Esnault-Pelterie), unlike the Germans, the Americans and even the Austrians who regularly launched rockets.

Alexandre Ananoff methodically refuted all the fancy techniques mentioned since the late nineteenth century by anticipation writers, such as the Jules

Verne's cannon, André Mas and Emile Drouet's giant slingshot, Henry de Grafigny's circular tunnel or Pyotr Lebedev's pressure by light radiation. He thus contributed to give a really scientific dimension to astronautics. He was now appearing as a true French specialist in the field, able to explain clearly difficult concepts. But without any qualification, the "astronaut" would often be criticized by professionals. But he later would consider that, if he was really a scientist, he shouldn't be allowed to work on astronautics!

In 1938, Alexandre Ananoff wanted to create a section in astronautics within the Société Astronomique de France. He received the support of André Hirsch and Ms. Flammarion for monthly meetings. The activities of the Section started with enthusiasm on 9 May 1938, but the second meeting on 13 June would be the last one: the section was too much criticized, considered not serious enough within the Society, and was finally closed.

Ananoff was of course disappointed but kept on writing several popular articles and gave three lectures before the start of the Second World War.

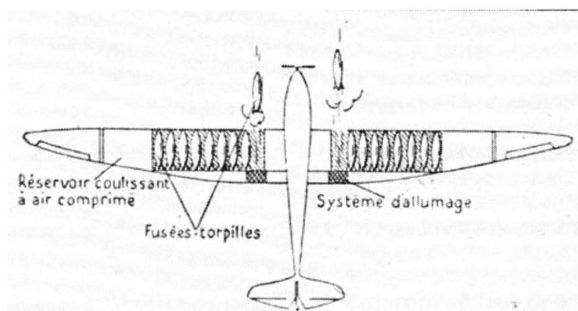


**Figure 1–4:** Signed portrait of A. Ananoff, probably in the late 1930s. Credit: Coll. MAE.

### **War and Captivity (1939–1944)**

The war broke out on 1 September 1939, and Alexandre Ananoff, as a French citizen, was mobilized. He first served as telephonist at Gondreville, near Metz, but he still received requests to write articles. Among the requestors, *Sci-*

ence et Vie ordered a paper about reaction engines. Even if such a publication was prohibited by the Ministry of Armament, Ananoff accepted and introduced the concept of “rocket torpedoes” under aircraft wings and looked at how to make accurate bombardment with such devices. He also imagined the possibility of using a rocket to carry high-altitude parachute floating mines, thus achieving a sort of dam against anti-aircraft flak bombers flying at high altitude. Censorship didn’t make any difficulty for the text, apart from a minor cut to ten lines about the magnetic mines. The article was published in April 1940.



**Figure 1–5:** The “rocket torpedoes” published in *Science et Vie* in April 1940. Credit: DR.



**Figure 1–6:** A. Ananoff in captivity, 1941. Credit: *Les Mémoires d'un Astronaute*.

Then came the time of military operations and defeat. Alexandre Ananoff was made prisoner by the Germans and sent to a prison camp in 1941, Stalag XII D near Trier, Rhineland-Palatinate. He tried with other prisoners to escape but he was caught and returned to the camp (under a false name). During his captivity, Ananoff was very privileged: while the barracks contained fifteen to eighty prisoners, he had a square in a hut for himself. He drew, continued his correspondences and even gave lectures on astronautics to all prisoners in the camp! In his room, he installed large panels executed in the workshops of the Stalag, depicting cosmic patterns and Oberth trajectories.

Released after winning chess against four German commanders, Alexandre Ananoff came back to Paris in 1944. He was at least able to meet his first son, Claude, born in 1939, after he was already mobilized.

## The Postwar Activities (1944–1946)

After the Liberation, Alexandre Ananoff wanted to continue the promotion of astronautics and contacted the SAF again. Unfortunately, the response of Madame Flammarion (on behalf of the President), on 30 December 1944, was clear:

Since space travel was directed from his birth to the industrial and military applications in which huge capital were engaged, defended by patent, industrial secrets and state secrets because of the war, the Société Astronomique de France cannot deal with it now. It is not within the scope of its activity despite the word Astronautics masks many things and interests. Accordingly, and to my great regret, we will wait for better days before talking about Astronautics to members of our Society, and we would appreciate you not to communicate invitation cards for your conferences to our members.

In June 1945, the French chemist Henri Moureu was working on the German V2 and recovered some debris of the fallen missiles near Paris in late 1944. Recognizing the revolutionary aspect of this engine, Moureu planned to create an organization that would take care of the development of rockets of the same type, the CEPA. He started to meet all the people in France with knowledge on rocket engines and contacted Alexandre Ananoff who had just published a pamphlet titled *La fusée V2 (The V2 rocket)*. A meeting between the two men, a true “glimmer of hope” for Ananoff, took place at the office of Moureu in Paris. But the astronaut, perhaps victim of his lack of a degree, would never be contacted again. He would keep a bitter memory of it.

But at the same time, Henri Monier, President of the l’Aéro-club Universitaire et Scolaire de France (AUSF) proposed Ananoff to revive its astronautical group within his association. Ananoff agreed “with joy”—after all, aviation is also close to astronautics. He gathered a committee of eminent personalities and established the new Section on 6 July 1945. The first conference took place in La Sorbonne on 16 November (156 people attended).

In 1946, Alexandre Ananoff organized about fifteen conferences with the astronautical Section. Similarly, his journalistic activity was bubbling: he wrote dozens of articles in *l’Aérophile*, *Aviation Française*, *Le Monde illustré* and *Nature*.

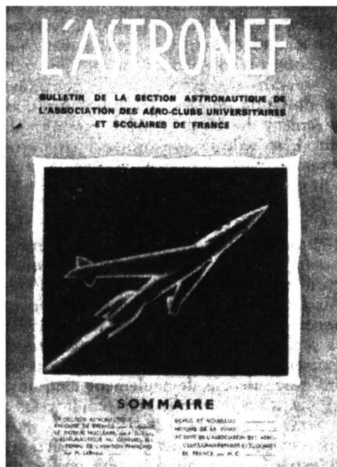
The reputation of the astronaut now expanded beyond the boundaries. In February 1946, he received a letter from the British Interplanetary Society (BIS), which proposed to conduct exchanges: “This is the first time an opportunity presents for us to contact a person in France who is interested in the question of Astronautics,” wrote the BIS research director, L. Gilbert.



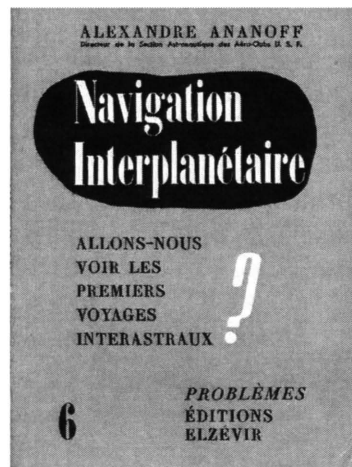
From 16 to 25 April 1946, Alexandre Ananoff was invited to participate in the second Congrès national de l'Aviation française (CNAF) at La Sorbonne. He was responsible for organizing and chairing the section on Astronautics-Navigation in the upper atmosphere. During two months, Ananoff made contact with different specialists in order to present the various national activities related to researches in Astronautics. During this successful congress, Ananoff performed six lectures. Recommendations were made at the end of the congress, in particular the desire to

promote propaganda in order to create a movement in favour of research on the reaction, with conferences across France, spectacular launches, publications, exhibitions, etc., in order to detect specialists in various disciplines who can contribute to the development of the problem.

Therefore Ananoff created *L'Astronef*, the monthly bulletin of the AUSF Astronautical Section in July 1946. With this publication he wanted to reach the public with various studies carried out on rockets, especially in France. He also did not hesitate to contact every organization which might be interested in the subject, such as ONERA (created in May 1946). But he would receive the following answer from the military authorities on 17 February 1947: "Since almost all research on Astronautics and high altitude are concerning the National Defence, it does not seem possible to give them any publicity, unless expressly authorized by the Government."



**Figure 1-7:** First issue of *L'Astronef*.  
Credit: DR.



**Figure 1-8:** The first book of A. Ananoff.  
Credit: DR.

But the highlight of the year 1946 was certainly the publication of Alexandre Ananoff's first book in September: *Navigation Interplanétaire—Allons-nous*

*voir les premiers voyages interaeraux? (Interplanetary Navigation—Will we see the first interplanetary trips?).* Made largely from Ananoff's lectures, this sixty-four-page book presented in thirty points the problems of the space travel and their solutions, from the operation of a rocket in the vacuum to produce breathable air, through the interplanetary trajectories.

Unfortunately, facing financial difficulties, the magazine *L'Astronef* was abandoned in November 1946 after the publication of its fourth issue.

### 1947, a Pivotal Year

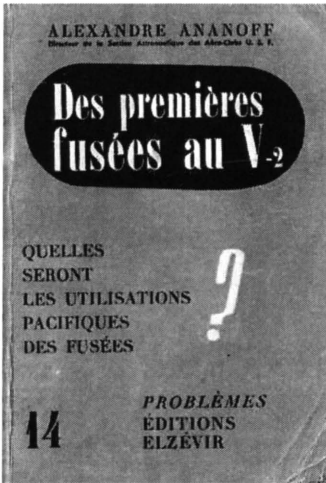
In January 1947, Alexandre Ananoff again was asked by the curator of Le Palais de la Découverte to prepare, together with Henri Mineur (the director of the Institut d'Astrophysique), an "Astronautics Department" on the theme of cosmic navigation. The permanent exhibition opened on 6 July.

Meanwhile, Ananoff was once again invited to chair debates on astronautics held in April during the third Congrès national de l'Aviation française. But Ananoff was disappointed by the interventions, without any news—certainly because of the discretion requested by the military.

Always looking for solutions to foster astronautics, Alexandre Ananoff imagined that some "spectacular rocket launches" could be a source of income for the astronautical Section. On 19 September 1947, he also proposed to the Ministry of Posts the development of postal rockets but he soon received a negative answer, arguing on a decree dating from the French Revolution!

The AUSF astronautical Section was then definitely closed on 17 December. But, anticipating this decision, Alexandre Ananoff had created earlier in September another section within the Aéronautique-Club of France (AéCF), named Goupement Astronautique de France (GAF). Among the group of enthusiasts who met each third Friday of the month in the auditorium Milne-Edwards of La Sorbonne, one counted Albert Ducrocq (who had become a nuclear physicist), the astronomer Audouin Dollfus and the Secretary of the French Mathematical Society.

In September 1947, Alexandre Ananoff also published his second book, *Des premières fusées au V2—Quelles seront les utilisations pacifiques des fusées? (From the first rockets to V2—What will be the peaceful uses of rockets?).* But the greatest news of the year was the proposal of editor Pierre Rousseau on 5 June to write an ambitious book synthesizing the knowledge on astronautics at that time. Ananoff immediately accepted and the contract was signed on 24 June. Two years of work would be required.



**Figure 1–9:** The second book of A. Ananoff.



**Figure 1–10:** A. Ananoff and his wife at home in 1947. Credit: Coll. MAE.

### **The Early Idea of an International Federation and an International Congress on Astronautics**

Alexandre Ananoff nevertheless published several articles and gave five lectures in 1948–1949. Some portraits of the astronaut were also made in the press, sometimes with flattering but inappropriate titles (like professor, doctor, scientist) so Ananoff still received criticism from the professional community. He tried to forget these childish reactions with the sincere friendship he shared with Henri Mineur and Eugen Sänger.

In September 1949, Alexandre Ananoff discovered in the bulletin of the BIS that the German Society for Space Research (Gesellschaft für Weltraumforschung, or GfW) planned to “form an international federation of autonomous [astronautical] national societies” and to organize an international conference in a year or two in London. Ananoff already had this idea in 1937 during the Universal Exhibition but André-Louis Hirsch felt at that time it was unrealistic.

Ananoff contacted the German Society on 26 October, and a first meeting took place in Paris on 4 November with Rolf Engel and Eugen Sänger. Ananoff convinced them to organize a congress in 1950 in Paris before the establishment of an international federation.

In December 1949, the GfW unanimously awarded the first Hermann Oberth medal to Alexandre Ananoff. Its President, Heinz Hermann Kölle, wrote to the astronaut: “By the Hermann Oberth medal dear sir Ananoff, we pay tribute to the great services you have rendered, by indefatigable for the peaceful devel-

opment of Astronautics.” The astronaut “will then always keep this medal on his chest.”

In 1949, Alexandre Ananoff also had a second son, Eric.



**Figure 1-11:** The Hermann Oberth medal of GfW.  
Credit: from *Les Mémoires d'un Astronaute*.

### **L’Astronautique (1950)**

Alexandre Ananoff’s book was released on 10 March 1950. Its title, *L’Astronautique (Astronautics)*, was identical to the capital work of Robert Esnault-Pelterie published in 1930—as a tribute? The book contained 500 pages, 125 figures and drawings (mostly made by Ananoff himself or executed under his direction) and 30 photographs. It followed the structure of his first book, *Navigation Interplanétaire*.

The reactions were numerous and unanimous. All recognized its value and interest. Comprehensive and didactic, the book was therefore considered as a reference.

On 18 April 1950, the Belgian cartoonist Hergé contacted Ananoff and requested his assistance for the new adventures of his character, Tintin, that would occur on the Moon. In particular, Hergé was looking for information on the cockpit of a spaceship (he would order a detailed model of the rocket represented in his comic and would bring it to Ananoff’s flat for advice in February 1952). The astronaut was glad to help this serious cartoonist. As a wink, Hergé drew a copy of *L’Astronautique* on the cover of an issue of the journal *Tintin* on 11 May 1950.



Figure 1-12: Announcement of the release of *L'Astronautique*. Credit: DR.

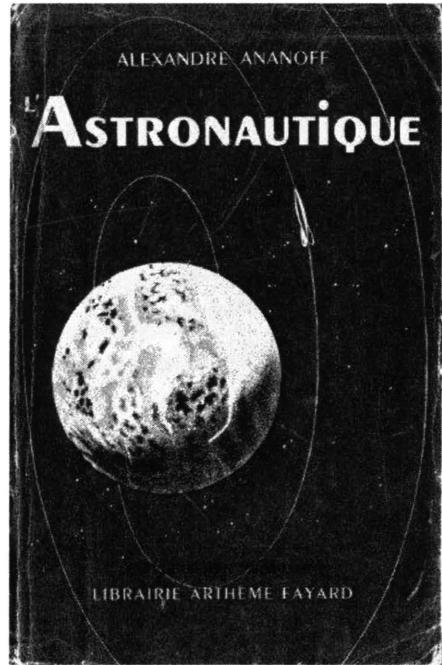


Figure 1-13: Book cover of *L'Astronautique*. Credit: DR.

## The Difficult Preparation of the First IAC

The decision to hold the first European Astronautical Congress in Paris was definitely taken on 16 February, after the approval of the British. The following month, the project took an international dimension (as Ananoff always imagined), in order to welcome Americans. But Ananoff had to resist against the idea of a “preliminary” meeting before the creation of the then International Astronautical Federation in 1951 during the Congress to be held in London. He felt he was wasting his time and, when the discussion was over, there were only six-and-a-half months left to prepare for the Congress in Paris.

Without any help from the secretariat of the Aéronautique-Club de France or from any research organization, Ananoff was forced to maintain correspondence with foreign countries, to organize the reception of delegates and to establish the program, in his spare time and with his own money. Quite alone, he even thought for a moment to postpone the event to 1951.

First proposals for papers arrived from England and Germany but some defections were announced: André Danjon (director of the Paris Observatory), Henri Moureu or rocket specialist Jean-Jacques Barré for France; Hermann



Oberth, Guido von Pirquet or Americans of the Detroit Rocket Society (for budget reason) for foreigners. The presence of the Soviets was also a serious problem that Ananoff really wanted to solve, unsuccessfully.

During the summer of 1950, the editor Les Nouvelles Editions Latines agreed to fund the new publication of the magazine *L'Astronef*. The first issue (thirty-two pages) appeared in early September.

**Figure 1-14:** The new magazine *L'Astronef*.

The Congress opened on 30 September 1950, in the main auditorium of La Sorbonne. Eight countries were represented: Germany, Argentina, Austria, Denmark, Spain, France, Great Britain and Sweden.

Albert Ducrocq was present and remembered the special atmosphere of the ceremony: “We had noticed a number of people but they came very quietly, often tried to hide behind the pillars as not to be seen because Astronautics was then not considered to be serious.” “The only leading scientist who has agreed to appear” was Henri Mineur, who chaired the opening session, and at the beginning of his speech, did not fail to emphasize the role of Ananoff.

Two private meetings then took place on 1 and 2 October at the Aéro-Club de France headquarters. Ananoff first suffered again from seeing the Congress reduced to the role of a preliminary chat before the London Congress. But after several heated exchanges, the final resolutions were suitable for him: they marked the birth of an international movement to quickly become important.

A few days after the Congress, Les Nouvelles Editions Latines informed Alexandre Ananoff that they would stop financing *L'Astronef*, meaning the end of this ephemeral magazine. The wish of Ananoff to publish the testament of Konstantin Tsiolkovsky (that is to promote a Soviet personality during Cold War) was probably the reason of this decision.

### **The Fight for a Soviet Representation in the IAC**

This bad news did not really affect Ananoff, who already thought about the next Congress and started a wide “tour” of conferences on cosmic stations, supplemented by publications on the same subject. But he realized that his interven-

tions did not generate any research. He felt isolated and saw a certain “hostility” growing toward him, especially when he organized on 27 January 1951, an information meeting at the Aéronautique-Club of France headquarters in order to, as he wrote in his invitation, “highlight the efforts of French technicians.”

On 30 March, he wrote to the President of the BIS to inform him of the difficulty to find French delegates for the next Congress: “I’ve done everything here in France in order to give to your Congress all the success he deserves; unfortunately it is not easy to decide and arouse works on cosmic stations here.” After all, he gave another conference on cosmic stations at La Sorbonne on 20 April and wrote to various organizations that might be interested in the next Congress, without success. Among the few answers he received, a letter from the General-Engineer Lafargue from DEFA confirmed his doubts: “I did not try to propose to my Management to send one of my colleagues [to London], I was too unconfident with the success of my request.”

At least Air Force Colonel Genty accepted to send one of his employees, the commander Galavardin, as a representative of the Scientific Office.

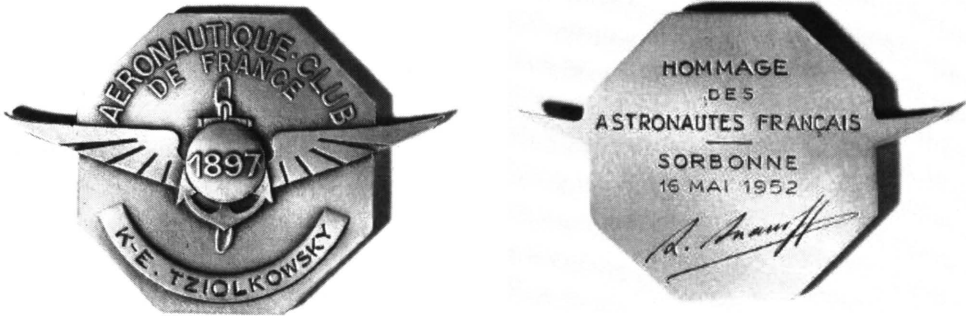
The second IAC took place in London from 3 to 8 September 1951. With more resources, the BIS was able to organize a larger and longer meeting than the Paris one. This time the Americans (represented by the American Rocket Society) were present but the Soviets were still missing. The President of the GAF could only attend the first day of the Congress, but he was warmly welcomed at the airport by the British officials. The International Astronautical Federation (IAF) was created as planned but the Constitution was not adopted and submitted for adoption at the next Congress.

Ananoff was irritated before the London meeting by the diversity of opinions expressed; he considered reasonable not to give his opinion. After the Congress, he strongly confronted with the new Honorary Secretary of the Federation, Josef Stemmer from Switzerland, especially on the subject of the Soviet participation.

In January 1952, in order to demonstrate that Soviet astronautics had to be considered, the astronaut proposed to the steering committee of Aéronautique-Club de France (of which he became President in 1949), to award a posthumous medal to Tsiolkovsky. His proposal was unanimously accepted and a ceremony was held on 16 May next to La Sorbonne. Because no Soviet official could attend this ceremony, another one took place on 12 June in Ananoff’s flat, with some French personalities, IAF President Eugen Sänger and some Soviet representatives.

Unfortunately, this symbolic action had no effect on the IAF and reserves were still there. Ananoff wrote to several presidents of astronautical societies

(Guenter Loeser in Germany, Frederick C. Durant III in the United States, Arthur C. Clarke in England) and kept trying to convince Josef Stemmer, in vain: the Soviets were not invited at the third IAC in Stuttgart, Germany (1–6 September 1952).



**Figure 1–15:** The Tsiolkovsky Medal of GAF.

Ananoff did not attend either. He refused to have to choose between Sänger and Oberth as President of the IAF and could not accept the fact that UNESCO should host the next Congress, while the organization refused to welcome the first IAC in 1950.

But in reality, with the establishment of the IAF, Ananoff the “popularizer” gradually lost control of what he helped create. Power now belonged to scientists and engineers.

Even inside the *Aéronautique-Club de France*, Alexandre Ananoff was losing authority. The affair of the Tsiolkovsky medal had created serious dissensions. Finally, Ananoff gave his resignation as President in October 1952 and dissolved the GAF; at that moment, there was no official astronautical movement in France.

Without any official assignation (and especially because it took place in Zurich, Switzerland), Ananoff did not attend the fourth IAC (3–8 August 1953). But his prolonged absence worried some of his foreign friends, like Frederick Durant, now new President of the IAF. On 2 October 1953, he wrote a long letter to Ananoff saying in substance:

I do not understand why you did not give more signs of life for several months. . . . Your advice would be welcome, really. After all this is mainly due to your enthusiasm and your work that the first steps have been made to the formation of the IAF.

Ananoff could not resist: he participated in the fifth IAC (Innsbruck, Austria, 2–7 August 1954) and received on his arrival “an ovation which I did not expect and the Americans were particularly pleased to see me.”



On 1 August 1955, Alexandre Ananoff could at least appreciate the first participation of the Soviets (represented by Leonid Sedov) at the sixth IAC in Copenhagen, Denmark, who would also remain famous for the first announcement of the projects of artificial satellites in the United States and the Soviet Union.

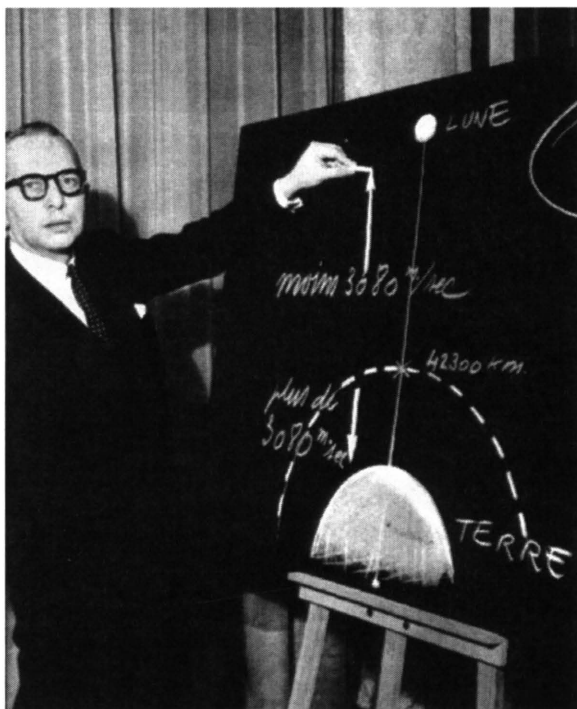
### **The Last Official Position in Astronautics**

Later in August 1955, General Bergeron, the former President of CASDN, wrote to Ananoff, asking for help to create a national astronautical society. At first, Ananoff was suspicious (he really did not like Bergeron) but he finally accepted the proposal. The Société d'Astronautique Française (SFA) officially appeared on 22 December 1955. But the relations rapidly deteriorated between the two leaders (Bergeron was not convinced to join the IAF).

Ananoff's priority was to give visibility to the new Society. On 28 June 1956, he organized an information meeting for press at his flat. Many personalities, such as Professor Moureu, accepted the invitation. But the meeting turned short very quickly, with evasive answers and many silences. Ananoff had the painful impression to be the Secretary General of a secret organization or an annex of the Ministry of War. He resigned from his position the next day and sent to all his friends and contacts a true pamphlet in which he explained that his role was now over, since France was now represented by an official delegation at the International Astronautical Congress. On 3 July he refused to participate in a major conference of the SFA at the Musée de l'Homme where he was awaited.

Without official position in relation to astronautics again, Ananoff remained in contact with some members of the Society. He continued to publish some articles, to give some lectures and to answer to the media, as an eminent specialist.

After the launch of Sputnik on 4 October 1957, Alexandre Ananoff sent a telegram to Jean-Jacques Barré, head of the French delegation in the seventh IAC to start in Barcelona on 6 October. He asked him, given the circumstances, to propose to leave the presidency of the Congress to Leonid Sedov. But Barré did not communicate the proposal to the leaders of the Congress and answered Ananoff that he didn't know he was "pro-Soviet!" The "astronaut" was totally shocked and planned to reveal to the press this "unspeakable attitude." But he finally changed his mind, apparently on the advice of the President of the SFA.



**Figure 1–16:** “The satellite explained on the blackboard” for the readers of *Paris Match*. Credit: Coll. PFM.

## The Ultimate Commentaries in Astronautics

Dealing with the launch of Sputnik, Ananoff literally exulted: the event confirmed what he predicted for nearly three decades. The “astronaut” was still full of humanism, as he said on 9 October on ORTF:

I think men...who learned the existence of this satellite have, during only ten minutes maybe...thought as people from our planet. They made no case nor Russians nor the Americans, nor any other nation. They just saw it as something that they were a little bit owners.

On 19 October, the weekly *Paris Match* offered him four full pages where he could exercise his usual talent, explaining cosmic trajectories on a blackboard.

One of the last comments of Alexandre Ananoff was collected in January 1959 by the magazine *France–URSS* after the launch of the Soviet lunar probe Luna-1.

The article he wrote in *Lettres Françaises* on 20 April 1961, after the orbital flight of Yuri Gagarin, seemed to be his last one in astronautics, twenty-seven years after his first paper.

## The Injury of the Fifteenth Congress

In the early 1960s, Alexandre Ananoff (who received the title Honorary Member of the SFA on 28 August 1960) was more and more silent. But when he learned that the fifteenth IAC would be held at UNESCO from 25 September to 1 October 1963, he felt the need to be invited and to make a 10-minute speech. He wanted to pay tribute to the first astronauts, to emphasize the role played by France in the development of modern astronautics and the circumstances of the founding Congress. However, Ananoff was only allowed to sit at the tribune and the elements he wanted to present had to be communicated to General-Engineer Fleury, who was expected to mention the creation of the IAF. Ananoff was deeply wounded but accepted the invitation with mischievousness: "I felt that it would be very boring for the organizers if I would accept." Albert Ducrocq remembered this strange situation: "We still remember memorable meetings where [Ananoff] was sitting in the first row of the audience, dressed in a very elegant suit, face contorted, while a number of people on the tribune shaked of fear just looking at him!"

From his position, Alexandre Ananoff could see, "not without a hint of satisfaction" that the public of the Congress was now "more numerous, different, it was no more simple curious." But he discovered a last detail when leaving: "I saw that the card with my name was misspelled... I realized that my time was gone forever...since nobody was able to spell correctly my name anymore."

Alexandre Ananoff maintained some correspondence with former astronauts and friends (he would of course warmly congratulate Hermann Oberth and Wernher von Braun when Americans would walk on the Moon in 1969) but he didn't deal with astronautics anymore. He now fully devoted himself to his second passion: art, a field in which he had also become a specialist, especially the French painters of the eighteenth century.

The "astronaut" would rarely come back from his retreat during the next fifteen years, apart from a letter to the Science Minister Gaston Palewski in January 1964 in order to give the name of Robert Esnault-Pelterie to a Paris street (on the request of his widow), a participation to a radio broadcast on RTL to comment the first steps on the Moon on 20 July 1969, and an appearance on 29 October 1969, during a "Dinner Grand Siècle" where he received an award (on the suggestion of Albert Ducrocq) for his contribution to the influence of French culture.

## Restoring the Historical Truth

In the late 1970s, Alexandre Ananoff looked back into his past and wanted to restore the historical truth.

In April 1977, he first remembered his whole career as an “astronaut” in a one-hour radio broadcast on France Inter with Jacques Chancel, *Radioscopie*, considering that his role ended in 1950, after the publication of *L’Astronautique*, the holding of the first IAC and the Hermann Oberth award.

ALEXANDRE ANANOFF

LES  
MÉMOIRES D’UN  
ASTRONAUTE  
OU  
l’Astronautique Française

LIBRAIRIE SCIENTIFIQUE ET TECHNIQUE  
ALBERT BLANCHARD  
9, rue de Ménilmontant, Paris 19<sup>e</sup>  
1979

The following year, Ananoff published his memoirs, *Mémoires d’un Astronaute ou L’Astronautique française (Memoirs of an Astronaut or The French Astronautics)*. He argued to be “forced” to speak again “because the past was ridiculed, the truth distorted, even the name of the forgotten first hour men.” Based on his personal archives, the 200-page book was often bitter, as the conclusion: “All in all, I demanded, to soothe my old age, a little gratitude... Even that was denied to me!”

**Figure 1–17:** The last book of A. Ananoff.  
Credit: Coll. PFM.

In September 1979, Ananoff presented a communication at the thirtieth IAC in Munich (16–22 September), called “The Founding of the IAF—A Memoir,” in which he recalled the difficulties to organize the IAF after the first IAC and to obtain the participation of the Soviets in the Congress in 1955, his great personal success: “Finally, I could enjoy this event of great importance for the outcome which I worked without respite for ten years, against all odds.”

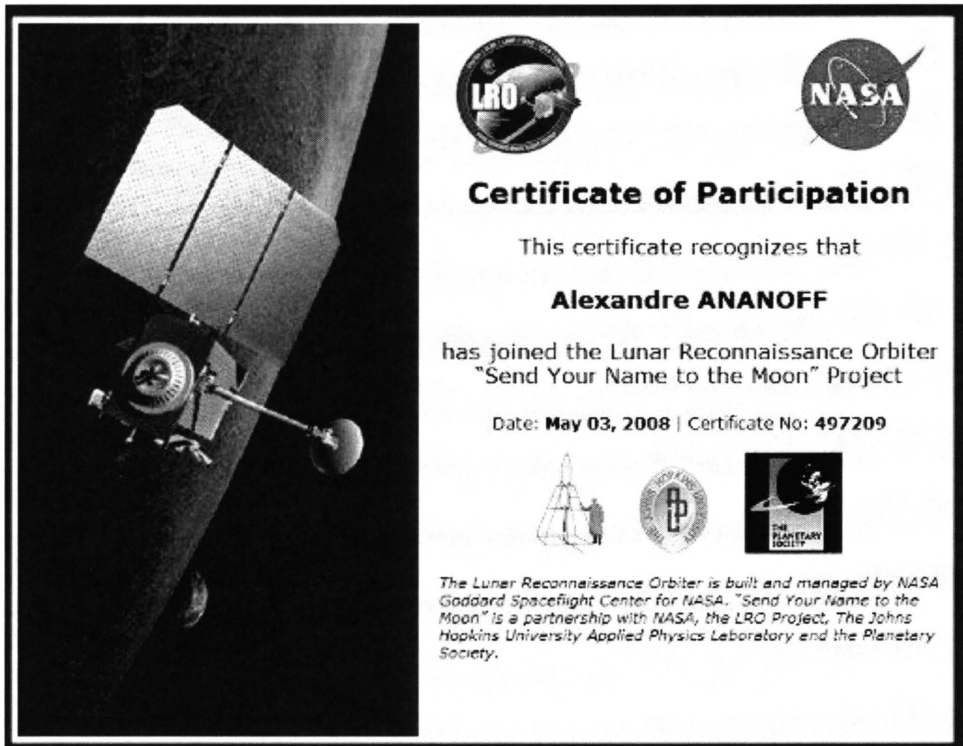
In September 1980, Alexandre Ananoff gave his huge documentation and letters to the French Air and Space Museum.

**Figure 1–18:** A. Ananoff during his last interview in the summer of 1990. Credit: Guy Pignolet.



On 25 December 1992, Alexandre Ananoff died after a long illness, in total indifference. He was buried in the strictest privacy in Montparnasse cemetery. Nobody could have realized his last wish: to place his heart with his wife and to send his ashes to the Moon.

It seems that Albert Ducrocq was the only one to write a tribute to the “astronaut” in *Air & Cosmos* on 1 February 1993. On 18 June 2009, the lunar orbiter probe was launched to the Moon with a chip containing 1.6 million names from the general public; Ananoff’s name was among them.



**Figure 1–19:** Certificate of participation to the project “Send Your Name to the Moon.”  
Credit: Coll. PFM.

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