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Chapter 17

Teófilo Tabanera, Father of the Argentine Space Program*

Pablo de León,[†] with Marcela Tabanera and Marisol Tabanera

Abstract

No other figure was able to organize and catalyze the seminal interest of space exploration in Argentina more than Teófilo Tabanera. Born in 1909, Tabanera showed an early interest in the possibilities of space travel and dedicated most of his life to popularize it in his country. Present in the original first meeting, which led to the creation of the International Astronautical Federation, Tabanera was able to bring his enthusiasm to this new discipline. He created the Sociedad Argentina Interplanetaria (1949), which was the first space enthusiast's organization in Latin America.

An avid writer, Tabanera wrote the first books about space exploration in Spanish, and organized many courses and conferences on the subject.

When the Comisión Nacional de Investigaciones Espaciales (the Argentine Space Agency) was created in 1960 by a decree of President Arturo Frondizi, Tabanera was appointed as its first Executive Director. There, with meager funds, he organized launch campaigns and international projects on sounding rockets. Thanks to his knowledge of the international space sector, Tabanera invited many

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experts to Argentina, among them Wernher von Braun and even the Apollo 11 crew, just a few months after their return from the Moon.

He continued his activities in the IAF (International Astronautical Federation) serving as vice president for seven terms, and was a cofounder of the International Academy of Astronautics (IAA).

His many contributions, both to the Argentine and international space sector, are a testimony to his undying enthusiasm and interest in space as a way of advancing humankind.

I. Introduction

Teófilo Melchor Tabanera was born on December 30, 1909, in San Rafael, a city in the Argentine province of Mendoza. He became the pioneer of space popularization in Argentina, the organizer of the Argentine Interplanetary Society, and the president of the first space agency in a Latin American country.

Largely, Tabanera took the responsibility of organizing the space movement in Argentina, to fortify it, and to have his country included in the list of founders of the most important international space forums. He represented Argentina during events of fundamental importance to global space activities.

For many decades, the name Tabanera was synonymous with space activities in Argentina. He was the country's leading specialist during a time when the Space Age was starting to take shape.

It is not known where and how the interest in space originated in Tabanera, a question that may remain unanswered. Perhaps one of the elements was, as with many space pioneers, the work of Jules Verne, since he mentioned it regularly in his articles. However, it is still hard to imagine how Tabanera developed a passion for space during the early 20th century in his provincial Mendoza, which would carry throughout his life.

After his elementary and high school studies, Tabanera moved to the city of La Plata to study engineering at the School of Physical and Mathematical Sciences at the Universidad Nacional de La Plata. In 1936, he graduated as an electro-mechanical engineer. In November 1930, while he was still studying, he wrote a curious article for the magazine *Revista Ilustrada de Actualidades*, which was published in two installments.¹

The article was titled "La Luna nos espera" ("The Moon Is Waiting for Us"), and while it was perhaps too optimistic for the time and place, it spoke that the conquest of the Moon will soon be resolved. The article was criticized by an astronomer of the time as ridiculous and unachievable. This event, which oc-

curred early in the career of Tabanera, made him feel some resentment against the established sciences.



Figure 17-1: Tabanera Portrait by Ramón Columba.

Even before he graduated he started working in Yacimientos Petrolíferos Fiscales (YPF), the national petroleum company. In 1939, he wrote *Manual de Soldaduras*, a welding manual. He was considered an expert in this area. In 1940, Tabanera traveled for the first time to the United States (where he remained for eight months taking some advanced training) and then to Germany to complete some training courses on design and construction of oil and gas pipelines. Thanks to his frequent trips abroad and knowledge of English, he also used his free time in these countries to interact with pioneers of rocketry.

In 1944, he helped to create the state-owned natural gas company, Gas del Estado, and served as its vice president until 1949. During those years, Tabanera often traveled to Europe to purchase machinery and gas equipment. In 1947, just two years after the end of the Second World War, Tabanera went to The Hague as a delegate of the Argentine government at the Third International Energy Congress.

II. Contacting European Space Societies

Following World War II, European interest in space was at its peak and “interplanetary societies” were starting to become more active.

Tabanera applied for membership to the British Interplanetary Society (BIS) in 1945, and was accepted. As far as we know, he was the first Argentine member of the BIS. Then, his friend, Felipe Reca (another engineer working for YPF) became the second. Tabanera, inspired by the work done at the BIS, decided to organize a similar society in Argentina. He and Reca began writing to the American Rocket Society and other societies and personalities of astronautics.

In 1947, Tabanera and Reca visited Professor Archibald Low, an authority on guidance of rockets and missile systems. Professor Low was also considered the father of radio-guided systems. Together with Philip E. Cleator, Low was one of the founders of the BIS.

Low and Tabanera established a very good relationship, and the first promises were made to write regularly in order to keep them informed on the activities of the BIS. As part of that same trip, Tabanera made a stop in New York, where he visited other specialists, among them, Willy Ley, the famous German science writer who immigrated to the United States before the war.

Ley shared with Tabanera his memories of the beginnings of the Verein für Raumschiffahrt (VfR), also known as the German Spaceflight Society, which interested him more into creating a similar organization in Argentina.

III. The SAI is Created

Immediately after his trip from Europe and the United States, Tabanera took the first steps in creating a similar society. Unfortunately, there was very little response, and he failed to find the minimal number of required members to create a working society, so he decided to wait until he could find more enthusiasts. He tried, once again, to start the Sociedad Argentina Interplanetaria (SAI) in 1949. The society was born with only four members, but a great deal of enthusiasm.

By then, Tabanera was named Minister of Economy and Irrigation in the province of Mendoza. As a result of his busy schedule, he had to postpone some of his activities organizing the new society.

It wasn't until August 31, 1951, that Tabanera managed to put together a founding act, which gave formal life to the organization.



Figure 17–2: Official photograph of the Sociedad Argentina Interplanetaria (1951). Sitting on the sofa are, Herminia Balado (wife of Tabanera and Treasurer); Teófilo Tabanera, President; and Ariel C. Rietti, Secretary. Author’s archives.

Some of the first members were: Rogelio Iribarren, Juan Lazlo, Rodolfo Martínez of Vedia, Francisco von Proschek, Carlos Kötsch, Jorge Föhring, Zygmundo Kicinsky, Adam Ostromensky, Ludovico Rother, Juan Landajo, Otto Waltz, Emilio Podravski, Ennio Gallego, and José Ovidio Martínez.

In 1951, more members joined, including Haraldo (Harald) Von Beckh, Ricardo Dyrgalla, Gunther Dietrich, Walter Georgii, Ariel Rietti, Herminia Balado (wife of Tabanera), Plácido Viarnés, Alfredo Wilke, Carlos Kornfeld, Conrado Wittner, Enrique Berger, and Heinz von Diringshofen, among others.

As the reader can see, there are plenty of surnames of German origin. In those years, when a foreigner immigrated to Argentina they used to change their first name to Spanish. This is why it is difficult to determine how many of these earlier members of the SAI were Argentine-born, as many of them just immigrated to the country as a result of the war.

Some of these immigrants worked in their country or origin (mainly Germany, but some from Poland and Italy) on aeronautical or rocketry projects, and were clearly more open to the ideas of space exploration.

IV. Creation of the IAF

The generation of “interplanetary” societies around the world called for the formation of a federation for the purpose of exchanging knowledge and help to popularize the progress in this young science. The initiative that led to the found-

ing of the International Astronautical Federation (IAF) took place on June 22, 1949, at the Gesellschaft für Weltraumforschung (German Society for Space Research, GfW) where its Board of Directors adopted the following resolution:

“The development of liquid propellant rockets of large volume has advanced so much that the possibilities of space travel can be assured with every right. A rocket can’t only be used as a weapon, but as an instrument of peaceful research... The German Society for Space Research recommends an international meeting with the participation of all societies devoted to the development of rockets, interplanetary communications, and space research, to ensure friendly relations and the successful exchange of experiences, thus aspire to the creation of an International Association of Astronautics.”²

This resolution was sent to associations from around the world, including the newly founded Sociedad Argentina Interplanetaria (the resolution was sent to the home address of Tabanera, since the SAI did not have its own office yet). Meanwhile, the British Interplanetary Society received the German invitation and proposed to organize a meeting in London to exchange ideas and views with other societies around the world. In September of the same year, Alexandre Ananoff, President of the Groupement Astronautique Français (French Group of Astronautics, GAF) proposed to welcome all the delegations in Paris. The advantages of a face-to-face meeting (instead of through the mail) were evident, and both the GfW and the BIS, accepted the proposal.

This first meeting was held in the great Amphitheatre of the Sorbonne and was called Premier Congrès International d’Astronautique, First International Astronautical Congress, starting officially on September 30, 1950. Tabanera was able to attend, representing the SAI. At this first congress, Tabanera petitioned to the delegates that, “*For being of the most immediate realization, I propose that priority be given to the study of everything related to artificial satellites.*”³

The Second International Astronautical Congress was held in London on September 8, 1951. Tabanera was present as, once again, the only Latin American representative.

The President of the Council of the BIS (Arthur C. Clarke) opened the session, followed by Eugen Sänger, interim President of the IAF, who called on each international delegate to give an overview of their societies. When it was his time to speak, Tabanera said that the Argentina interplanetary society had 22 members and gave a brief overview of the activities that were taking place.

As a result of this second Congress, the International Astronautical Federation was formally created on September 4, 1951, electing Dr. Sänger as its first president.⁴

Thanks to the presence of Tabanera, on behalf of the modest South American Association, Argentina was given the privilege of being a founding member of the IAF. From that moment, the presence of both, Tabanera and Argentina, at the International Astronautical Federation became permanent.

V. The SAI is Growing

In the magazine *Ingeniería* (official publication of the Centro Argentino de Ingenieros, CAI), Tabanera prepared a series of articles with the mathematical foundations of spaceflight during the months of September through December 1951. This work exposed his knowledge on the subject at a time when the foundations of this new science started to become known. These are the first attempts by Tabanera to create awareness about the reality and potential of astronautics. This work, which was very well written and illustrated, provided calculations of combustion chambers, formulas of propellants used at that time, calculations of weights, multi stage calculations, and the rudiments of orbital mechanics.

It is clear that Tabanera intended to give a scientific basis to the topic, moving away from the concept of the “crazy dream” that astronautics was considered up to that time. On the last page he provided a bibliography, which was basically the list of all the books that the library of the SAI had until that time. It included the works of von Braun, Oberth, Malina, Pendray, Whipple, Sänger, Ley, Clarke, and other well-known authors of the time.

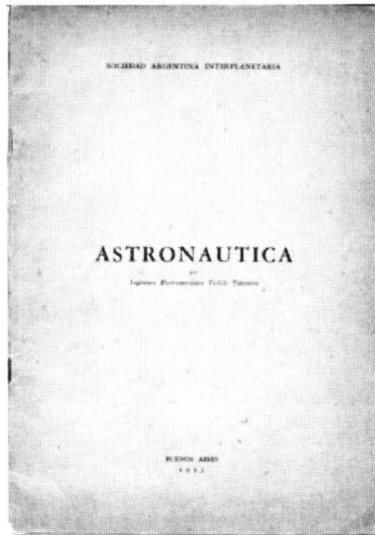


Figure 17-3: Cover of the book *Astronautica* by Tabanera (1951). Author’s archive.

In January 1952, the SAI published the first issue of a newsletter for members, the first of many published during the life of the association. The first issue consisted of two pages (printed double sided), with the title, *Sociedad Argentina Interplanetaria, The Man Towards the Universe*. It included a small photo of the first commission, and highlighted a short essay written by Tabanera.

Among other things, Tabanera wrote,

“Our Argentina also has a place in Astronautics, awakening by the interest of a small group of men, full of enthusiasm and concerns, they have gathered in a small group to contribute to the extent of their possibilities, to the progress of this new science. So as first initial result of their efforts, has been constituted the Sociedad Argentina Interplanetaria, from humble beginnings, and more recently in a more organized form. This small newsletter is born today to be the expression of the efforts of this group of men, who without doubt, will increase in number, but whom will work to follow the fast evolution that the Astronautics is having.”

In the same year, Tabanera published *Qué es la Astronáutica (What's the Astronautics)*, a small pocket book of only 70 pages, which became an editorial success, being reprinted several times by different publishing houses during the 1950s and 1960s.



Figure 17-4: Cover of the book *Qué es la Astronáutica* (1952).

By 1952, the SAI reached 85 members and obtained a small office in downtown Buenos Aires.

During the same year, the SAI started to organize the first public dissertations using conference rooms loaned by YPF. The first conference was given in February by Dr. Otto Waltz, under the title of "Introduction to the Technique of Rockets."

The second conference was given by Tabanera in March and was basically an oral presentation of the articles that appeared in the magazine of the CAI.

The third dissertation at the end of March was given by Polish engineer Ricardo Dyrghalla on "The Development of the Rocket Engine."⁵

The fourth included the screening of a film about the V-2 German, with comments by Tabanera. The fifth, consisted of a lecture from Dr. Waltz on "Flying Saucers and the Possibilities of visitors from Space," a topic quite popular in those times. Finally, the year ended with a conference on the "Medical Aspects of Astronautics" by Drs. Haraldo (Harald) von Beckh and Heinz von Diringshofen, both just arrived from Germany.

The conferences had wide press coverage in several Buenos Aires newspapers, giving them great reviews. In particular, the newspaper *La Prensa*, even sent reporters to the three talks.

Meanwhile, the SAI kept growing. Tabanera had begun the procedures to get legal status as nonprofit association, which was finally obtained in 1955.

An issue that Tabanera started to notice in the SAI was that many (mainly young members) had a great interest in carrying out practical experiments with rockets, and not so much reading, studying, or attending conferences.

Tabanera was not an enthusiast of "wasting" the meager funds of the Association on experiments. This may have been in response to examining the complexity of the A-4 (V-2) rocket engine at the Third International Astronautical Congress in Stuttgart (September 1952). Tabanera's hesitation could also be due to fear of the dangerous work involved in rocket experimentation. Either way, due to pressure from many members to do something practical, Tabanera agreed to devote a small part of the funds of the SAI to the development of a small rocket project which never flew.

The SAI began to organize frequent courses of propulsion, provided not only by Waltz and Dyrghalla, but by other recognized professionals, such as Günter Diedrich, Dr. Daniel Zappi (an Argentine expert on propellants), and Dr. von Beckh (a specialist in aeronautical medicine). Another prominent German specialist who came to Argentina was Dr. Erich Bachem, creator of the manned rocket system Bachem Natter, which was designed in 1944 at the request of the SS and tested just before the end of the war. In 1953, Bachem published a technical paper at the Fourth International Astronautical Congress in Zurich, called "Some Basic Problems of the Vertical Launches," with the SAI as affiliation.

In 1957, Bachem returned to Germany, becoming a famous designer of mobile homes and trailers, creating a company (Eriba) that, even today, continues to produce the most famous mobile homes in Europe. What Bachem did in Argentina during those years is unknown to the author, who investigated several sources without result.

VI. The First Space Exhibition

By December 1954, the SAI had grown to more than 400 members. Its international standing was very high for a Latin American nation, with Tabanera having been chosen as Vice President of the IAF.

In the same year, the SAI participated in the exhibition organized by the Asociación Argentina Amigos de la Astronomía about astronomy and spaceflight with great interest in the public. This event prompted the idea of organizing a larger exhibition devoted to Astronautics, in order to attract more members for the SAI. The preparation for the exhibition took almost a year, opening to the public on November 7, 1955.



Figure 17–5: Cover of the first South American exhibition on astronautics booklet (1955). Author’s archives.

Among others, the exhibit had an “astronaut,” a mannequin dressed in a sort of spacesuit, a model of the von Braun Moon rocket, a model of the “wheeled” space station (also designed by von Braun), and a small model of the

V-2 with its launch vehicle. Members had also built a replica of the four-stage rocket, Rheinbote. There were models of rocket engines and a “static test bench,” specially prepared using compressed air.⁶

Other members obtained two pulsejet engines, two rocket engines (70 and 2 kg of thrust, respectively), and a gas generator.



Figure 17–6: Entrance to the exhibition on astronautics (1955). Author’s archives.

There was also an exhibit about artificial satellites. There were models of the MOUSE satellite project by the United States, as well as a British satellite concept.

The First South American Exhibition on Astronautics was a complete success, despite the fact that those were complex times for Argentina. The government of Juan Perón was ousted in October of the same year by a military junta, and the country was in turmoil. Still, this situation did not halt Tabanera or the SAI. People were coming every day, and on the weekend, it was so full that they had to control the entrances. The 5,000 printed programs were given during the first two days of the exhibit, which opened from 7 to 24 November.

The primary objective was the popularization of activity, however, the secondary objective was the capture of new members. By the end of the exhibit, the SAI reached 1,000 members.

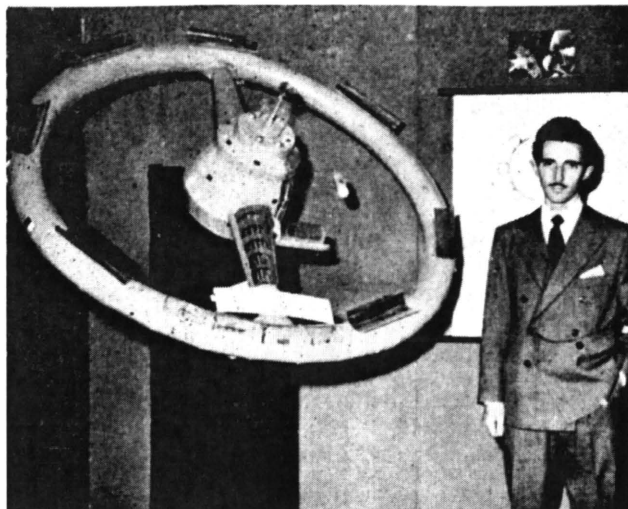


Figure 17-7: Model of the “wheeled” von Braun space station. Also pictured, its builder: Mr. Marziano, a member of the society (1955). Author’s archives.

The success of the exhibition of the 1955 astronautics caught the attention of the Ministry of Aeronautics, which started to look more seriously into this new science.



Figure 17-8: Model of a static rocket test stand at the exhibition. From right to left: Tabanera, Herminia Balado (Tabanera’s wife), Ariel C. Rietti, Félix V. Fernández Ares, and Enzo La Spina (student). The sign says, “The construction and experimentation of liquid propellant rocket engines in our country is a serious and consistent activity.” Photo courtesy Mr. Felix Fernandez Ares.

At the end of July 1956, Tabanera and his wife traveled to the United States. Over the course of a month, they visited a number of places devoted to space research. During this trip, Tabanera visited with von Braun, who was working at the Redstone Arsenal in Alabama. This meeting and subsequent exchanges of information between the two, made von Braun's 1963 visit to Argentina possible.

The year 1957 would be the final take-off for the organization. Their newsletter, was formerly a publication of minimal quality. It transformed from a mimeograph-produced, low-quality paper, to a magazine printed in glossy paper, with a cover printed in two colors, and abundant photos and drawings. This gave authors the possibility to expose their concepts more clearly.

VII. Creation of Argentina's Space Agency

In 1958, the military junta that ousted Juan Perón from power, called for presidential elections. Arturo Frondizi, a progressive, center-left politician won the popular vote. Tabanera, who was a supporter of Frondizi, due his industrialist and desarrollistas (developmentalist) policies, submitted a proposal for the creation of a national space agency, including the creation of NASA (in 1958) in the United States as an example.

Frondizi and Tabanera shared many ways of thinking, among them, an optimistic and industrialist vision of the country. The idea of space exploration, and the fact that it was beginning in other countries, did fit perfectly in the agenda of Frondizi. While aware of the budgetary limitations of the country, Frondizi decided to go ahead with the proposal.



Figure 17-9: President Frondizi (right) with Tabanera, an Air Force officer (Abraham), and a foreign visitor (Dr. R. Porter). Courtesy Tabanera family.

Tabanera visited Frondizi, possibly at the beginning of 1959, and from that meeting, he got the approval to start the planning of the national space agency. The plans were guided by the idea of using outer space for peaceful purposes only, and selecting a civilian to head the national space agency.

Finally, at the beginning of 1960, Tabanera's efforts to create a national space agency were successful.

Due to the delicate relationship of the Frondizi government with the armed forces (the President knew that the military was watching his presidency at every step, and they could remove him from office at any time), and despite the fact that the new space agency was going to be a civilian organization, Frondizi needed approval from the military. As a result, he included in the decree of creation that a number of military organizations would "oversee" the new space agency, which was named Comisión Nacional de Investigaciones Espaciales, CNIE, (National Commission for Space Research).

Still, Frondizi was able to name a civilian president for this commission, and logically, selected Teófilo Tabanera for the task.

Tabanera was immediately given an office at the Secretary of Aeronautics, a phone, and an initial budget of zero.

Even so, he started to work on the difficult task of organizing a civilian (unfunded) space agency. At the same time, he was surrounded by military pressure, since the Air Force looked at space as its zone of responsibility, being a continuation of the airspace.

In the beginning, the tasks Tabanera took on were extensive, including promotion of the studies and research, training of specialists, search and classification of documentation, creation of the Institute of Astronautics, and the development of a high altitude sounding rockets program.

VIII. Tabanera Organizes the CNIE

Despite the fact that Frondizi was ousted from power by the military in 1962, Tabanera continued as head of the CNIE. His trajectory and popularity was too strong for him to be removed and replaced by a military officer. He was even given a budget by the Ministry of Aeronautics, which is now dependent of the Air Force.

The Revista Nacional Aeronáutica y Espacial included a piece about the CNIE in 1962:

"The basic concept that has guided the internal organization of the CNIE, and that has focused almost all its activities in this initial period, is that the principal mission of the Commission is not so much a direct executor of

scientific research and technological development, but mainly that of a promoter and coordinator of the studies, experiments and achievements in science and space technology for the entire country.”⁷

This is where CNIE would differ from NASA and other space agencies in the world. The CNIE was more concerned with “promoting” and coordinating the national space activities, than executing it by direct development.

One of the first tasks of Tabanera at CNIE was the creation of a number of agreements with national universities. About 20 different agreements to perform different studies were conducted in the first two years of the CNIE, with 85 percent of its total budget being allocated for these purposes. Another 5 percent of the funds were used in the purchase of equipment (tools and instruments) and only 10 percent were used for operating expenses and salaries.

It is easy to see that the interest of Tabanera was in decentralizing tasks and allowing the universities and research institutes of the country to develop its expertise in space science and technology.

During that time, Tabanera spent nearly 12 hours a day at the CNIE offices. Most days his wife accompanied him, pro-bono, to help with secretarial duties.

Tabanera welcomed anybody who wanted to meet with him, from young people with an interest in working in space and seeking his counsel, to rocketry enthusiasts or deans of small universities in distant provinces. People from all stages were received and encouraged by Tabanera.

In 1962, Dr. Fridtjof Speer, of the NASA Marshall Space Flight Center, visited Argentina following a CNIE invitation to give a public talk about the Apollo program. Tabanera took the advantage to formally invite Dr. von Braun to visit Argentina the following year.



Figure 17–10: From left to right, Mrs. von Braun, Dr. von Braun, Tabanera, and an unidentified Navy officer, during a boat trip in Argentina. Courtesy Tabanera family.

At that time, NASA's personnel were committed to fulfilling the mandate of President Kennedy to reach the Moon before the end of the decade.

With this deadline in mind, von Braun, as the director of Marshall Space Flight Center, was responsible of thousands of workers, millions of dollars of budget, and the development of the mighty Saturn rocket. This extensive list of responsibilities didn't allow much time for visiting other countries. Despite this, he decided to visit Argentina with his wife due to the early contact created by Tabanera.

Von Braun arrived for a week during October 1963 and gave a number of lectures about the Apollo program and the development of large rockets. He visited not only Buenos Aires, but also the province of Córdoba, where he visited airplane factories, wind tunnels, and rocket development facilities.

IX. Tabanera Leaves the CNIE

Despite the excellent work done by Tabanera in the creation and administration of the CNIE, some wanted an Air Force officer occupying his place. Support for a military replacement persisted after the successive ousting of democratic presidents and replacements by military juntas, and their growing intervention of civilian organizations.

At this time, Tabanera was near retirement age, and perhaps decided not to fight for his position with too much force. By the middle of 1968, Tabanera left his post in the CNIE. There are several theories and comments from witnesses of how this replacement was produced. Since the author could not find reliable documentation to support any of these hypotheses, only two possibilities can be offered here. One, that he was removed from CNIE in order to put a military officer in his place, and the second, that Tabanera, exhausted from the power struggles with militaries, decided to leave his post.

The new president of the CNIE was Brigadier Carlos Federico Bosch with another officer, Juan José Tasso, as Vice President. Tabanera would still lead one of the committees of the CNIE on satellites and educational television, pro-bono.

The concept of international cooperation on space activities that Tabanera led as a flag during his presidency in CNIE would suffer ostensibly during the following years. This continued until the election of Sánchez Peña as president in 1976.⁸

A couple of years before, Argentina was selected to be the host for the 20th International Astronautical Congress, which would take place in the coastal city of Mar del Plata. The recent removal or retirement of Tabanera from CNIE came at perhaps the worst moment, since he was known by the IAF since its inception.

Tabanera would have brought more experience and preparation to the meeting, had he been in charge of CNIE at that time.

After leaving CNIE, Tabanera continued with a number of activities, including a small private business, and a position as a university professor. He kept to himself his work at the IAF and the International Academy of Astronautics. He also traveled to Kennedy Space Center in 1969 to witness the Apollo 11 launch.

X. International Astronautical Congress in Argentina

Since the founding of the IAF, Tabanera had tried to organize one of the annual congresses in Argentina. In 1967, while still in his capacity as President of CNIE, he was able to obtain the necessary support and present a compelling proposal to the IAF, which was accepted at the 18th Congress in Belgrade.

The 20th International Astronautical Congress took place from October 5 to 10, 1969, in Mar del Plata. While Tabanera was no longer the President of CNIE, he continued to have a great reputation among his colleagues. With these continued relationships, the local organization of the IAC was made jointly between CNIE (chaired by Bosch) and the Asociación Argentina de Ciencias Aeroespaciales (AACAE, the new name of the Asociación Argentina Interplanetaria) in charge of Tabanera (as Honorary President) and Aldo Cocca.

The opening of the Congress was held in Buenos Aires with the presence of some special guests: Armstrong, Aldrin, and Collins (the Apollo 11 crew). Afterward, the delegates moved by train, bus, and plane to Mar del Plata to begin the deliberations. The Soviet Union had sent the largest number of participants, most likely to make contacts with American scientists in reference to the Apollo flights. Meanwhile, the United States presented a series of papers containing the preliminary results of the first manned mission to the Moon.

In total, some 400 international delegates attended the Congress.

The event itself was a success for the Argentine space community, and Tabanera, in particular. He finally had the opportunity to host hundreds of foreign specialists who, for decades, had seen him at conferences in other countries. This was, in a way, one of the last major events in the professional life of Teófilo Tabanera. Never again would a space event of this importance take place in Argentina.

XI. The Space Movement Loses its Founder

In his later years, Tabanera became a great promoter of satellite education, and proposed several projects for its implementation in his country. His great enthusiasm and interest in his homeland stayed until the end. His last book was called *La Argentina Ante el Desafío del Tercer Milenio* or *Argentina before the Challenge of the Third Millennium*, a book where Tabanera enunciated a number of steps the country needed to enter to the 21st century. Already retired, he also spent more time at home, with his wife and two young daughters.

On June 30, 1981, Teófilo Tabanera died suddenly in Argentina, due to a heart problem. Just a few months before, he had witnessed the first flight of the Space Shuttle *Columbia*, mission STS-1, from Kennedy Space Center.

The Argentine newspaper, *La Nación*, published in his obituary:

“The passing of Mr. Teófilo Tabanera represents for our country, the loss of an observer lucid, an intelligent visionary, who tried, using the methods that were at his disposal, and particularly through his writings, share his knowledge and put the country in a role of equality and justice within the scientific community and the technological world.”⁹

Frederick I. Ordway III said,

“Teófilo Tabanera’s sterling qualities of gentleman, friend, husband and father, ardent apostle of space flight, and tireless investigator will serve as an example to be emulated for decades to come.”¹⁰

XII. His Legacy

The legacy of Teófilo Tabanera lives in his books, his teachings, and in his work as a foundational piece in the development of the space activities in Argentina.

The space center located in the province of Córdoba has been named in his honor. In 2016, the Argentine documentary TV station, Canal Encuentro, dedicated a program about his life and legacy.

No other figure was able to organize and catalyze the seminal interest in space exploration in Argentina more than Teófilo Tabanera. He was able to spread his enthusiasm in this new discipline and disseminate this new science in Argentina and beyond.

His many contributions, both to the Argentine and international space sector, are a testimony to his undying enthusiasm and interest in space as a way for the betterment of humankind.



Figure 17-11: Teófilo Melchor Tabanera, father of the Argentine space program. Courtesy Tabanera family.

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