

Bilateral Relations

AMBASSADOR
JORGE ARGÜELLO'S
PRODUCTIVE VISIT
TO ILLINOIS

Business

THE UNITED STATES
AND ARGENTINA
CONSOLIDATE
THEIR
COOPERATION IN
THE SATELLITE
INDUSTRY

Science & Tchnology

ARGENTINE
PHYSICISTS AND
ENGINEERS AND
THEIR PROMINENT
ROLE AT FERMILAB
IN CHICAGO



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ARGENTINA IN FOCUS

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Ambassador Jorge Argüello (Left) and Governor of Illinois, Jay Robert "JB" Pritzker (Right).

AMBASSADOR JORGE ARGÜELLO'S PRODUCTIVE VISIT TO ILLINOIS

Between September 7 and 10, Ambassador Jorge Argüello made a productive working visit to Illinois. His main purpose was to strengthen the existing bonds of friendship and reinforce the economic relationship between this region of the United States and Argentina.

Throughout his visit, he carried out an intense work

agenda, including meetings with important state and local officials, academics, think tanks, prominent entrepreneurs, companies, local personalities, as well as members of the Argentine community and civil society institutions.

Among the scheduled meetings, Ambassador Argüello held a very positive one with the Governor of Illinois,



Once again, I share with you the latest edition of our Embassy Newsletter. This edition includes an article about the visit to the state of Illinois, with the purpose of strengthening bonds of friendship and reinforcing the economic relationship between this region of the United States and Argentina.

In this edition we also include an article on the Argentine participation in the Satellite2021 Conference and Exhibition, which enabled us to witness the role that companies such as Arsat, Invap, Veng and DTA, can play in the U.S. market.

Finally, an article on the work of Argentine scientists at the Fermi National Laboratory (Fermilab), United States' main particle physics and accelerators laboratory.

Jorge Arguello
Ambassador to the United States

DURING THE PANDEMIC
ARGENTINA —AS HAPPENED AS
WELL IN CHICAGO— WITNESSED
AN EXPONENTIAL GROWTH OF
STARTUPS VALUED AT OVER \$ 1
BILLION.

Jay Robert “JB” Pritzker. They evaluated the best ways to promote investments and bilateral trade between Argentina and Illinois, which is the twelfth destination of Argentine exports to the U.S.

Governor Pritzker’s personal experience in promoting new companies is extensive. Before taking his current position, he founded 1871, a non-profit small business incubator that has helped generate over 11,000 jobs and more than 1,000 companies. Since its creation, Chicago has been designated one of the largest hubs of new technology companies in the world, and it was ranked the best incubator.

The meeting allowed ambassador Argüello to describe how during the pandemic, Argentina —as happened as well in Chicago— witnessed an exponential growth of startups valued at over \$ 1 billion, and a total of 11 unicorns. This shared experience of entrepreneurship, talent, creativity and innovation represents a common ground for strategic alliances between the business communities of both countries.

Ambassador Argüello also took advantage of his visit to this city to meet with Argentine academics residing in the area: outstanding professionals at Chicago, Illinois and Northwestern Universities. They discussed how to promote the exchange of researchers and scientists between the universities in both countries.

In addition, the Ambassador visited the University of Illinois, where he had the honor of distinguishing Argentine physician Damiano Rondelli, who directs a highly complex bone marrow transplant program in which Argentine interns also participate. Likewise, at this university, Argüello met with the President and his team to discuss exchange programs for postgraduate researchers in Medicine and Engineering.

Continuing with his visits to the most prestigious science and technology institutions in Illinois, Ambassador Argüello visited Fermilab (see page 7), one of the most important laboratories in the world carrying out experiments with particle accelerators. There, in addition to touring the facilities, he met with a team of Argentine scientists participating in an energy project.

As to the commercial side of the visit, a wine tasting event organized by the Argentine Consulate General and Wines of Argentina, can be highlighted. Different varieties such as Malbec, Cabernet Sauvignon, blends and high-altitude wines were presented, with a space for tasting organic and biodynamic wines. This event is part of a series of activities our country has been carrying out to strengthen our wines’ positioning in the region. It is worth noting that the United States is the main export destination of our fractioned wines, and in turn, these were among the top 3 products imported by Illinois from our country in 2020.

On the other hand, Ambassador Argüello also held a working breakfast with Argentine businesspeople who hold management positions in various firms based in Chicago: Juan Luciano, CEO of ADM (one of the largest agricultural processors and food ingredient providers in the world); Celina Mesquida, Vice President, Market Development and Grain Research at RJ O’Brien; Ignacio Bartolomé, Business Director for GDM (one of the largest soybean seed developers, specialized in improving plant genetics), and Christian A. Gradlmuller, Vice President of Global Marketing at SC Johnson.

THE AMBASSADOR AND THE
GOVERNOR OF ILLINOIS
EVALUATED THE BEST WAYS
TO ENHANCE THE BILATERAL
INVESTMENT AND TRADE
BETWEEN ARGENTINA AND
ILLINOIS.

During this productive meeting, issues related to the Argentine agricultural sector were addressed, with the aim of advancing towards the production of greater added value, incorporating future technological changes and digital transformation to the country's productive processes. Finally, major topics such as climate change, food safety, and the technology and safety challenges facing industries were also discussed.■

THE UNITED STATES AND ARGENTINA CONSOLIDATE THEIR COOPERATION IN THE SATELLITE INDUSTRY

Jorge Argüello, Ambassador of Argentina to the United States.

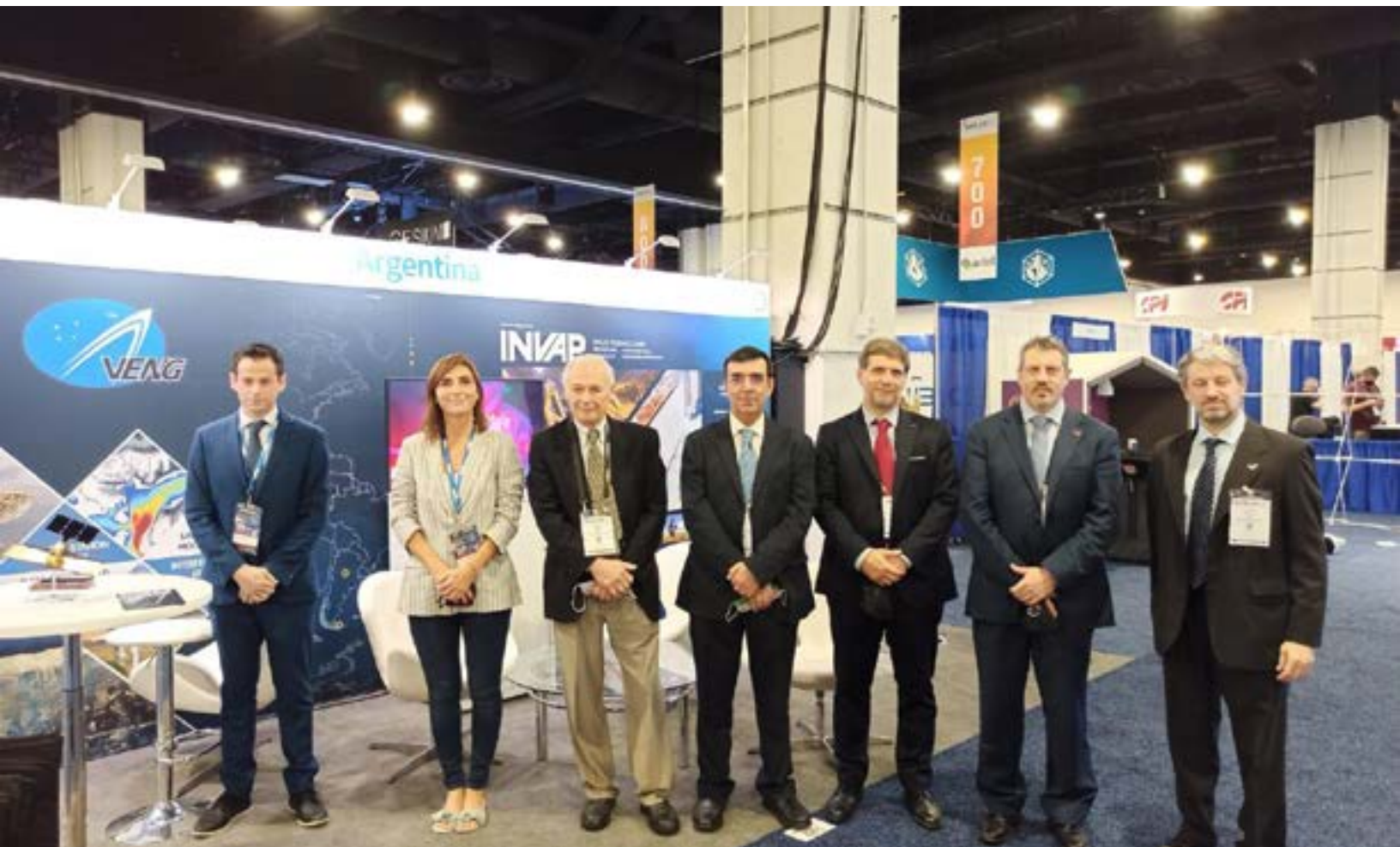
In the United States, the satellite and space industry is experiencing a marked expansion. Issues that until a few years ago were in the realm of science fiction, such as space tourism, microsattellites and constellations, are now included in the very real and concrete business plans of specialized companies. Major global players such as Space X, Virgin Galactic, Viasat or Amazon, compete and innovate to overcome certain limits that seemed insurmountable.

According to the Satellite Industry Association, based in Washington D.C., the number of satellites in orbit could reach 107,000 by 2029, a feat that is both exciting and

worrying due to the challenges of various kinds that it entails. Certain elements have contributed to the rapid development of the sector: the miniaturization of satellites, cost optimization and a growing participation of private companies (in an area formerly reserved for the military complex) are some of the main reasons for this boom.

Argentina, which already plays a leading role in the international satellite industry, has a unique opportunity to consolidate and expand its contribution throughout the next decade. Our companies are valued, respected and heard in this demanding and cutting-edge industry, both large and small, public and private. The efforts made by CONAE (National Commission for Space Activities), which celebrated its 30th anniversary on May 28, is one of the

Company representatives of Veng, DTA, INVAP y Arsat at the Satellite2021 Conference and Exhibition.



THE TWO SAOCOM SATELLITES
WERE LAUNCHED WITH SPACEX
VEHICLES, ELON MUSK'S
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DEVELOPED FOUR SAC SERIES
SATELLITES WITH NASA AS ITS
MAIN PARTNER.

explanations of this prestige.

There is already a close bi-national cooperation: the two SAOCOM satellites were launched with SpaceX vehicles, Elon Musk's company, and CONAE developed four SAC series satellites with NASA as its main partner. These are just two examples of an articulation that is enriched and sustained over time.

Today we see that it is possible to go a step further in this partnership. Argentina's participation in the Satellite2021 Conference and Exhibition held at National Harbor, Maryland, enabled us to witness the role that companies such as Arsat, Invap, Veng and DTA, each with its own expertise, can play in the U.S. market. Satellite2021 is one of the great global showcases of the industry and Argentina was the Latin American country with the largest presence. Our firms demonstrated that our country is capable of designing and manufacturing satellites, both for earth observation and communications purposes.

Together with the Comptia Space Enterprise Council, we organized a business meeting at the Embassy, attended by several of the most important companies in the world. In addition to the aforementioned Space X, Virgin Galactic -whose owner, Richard Branson, traveled to space in one of his company's spacecraft last July- and Amazon, Lockheed Martin, Viasat, Ispace, the Swedish Space Corporation, and

several government agencies that regulate and promote this sector also attended.

This event reaffirmed that the United States needs to import diverse goods and services of very high added value, and that Argentina is valued as a valuable strategic partner. This opportunity is not only for large companies. In our country there are hundreds of SMEs with qualified and timely offerings: from flight controllers to structural calculations, from small satellite parts to software or propulsion systems. Entering the exclusive supplier base of the satellite industry global giants can change the reality of our SMEs, many of them painstakingly founded by physicists and engineers, which could be in a position to expand, hire more personnel and firmly bet on their internationalization.

The benefits of this endeavor are numerous: high-quality jobs are generated; value-added goods and services are exported; investments are made in training; and the value of our specialists is recognized. But, above all, it brings us closer to the ultimate goal established by our National Space Plan: to contribute to Argentina's technological development. ■



Ambassador Jorge Argüello (Ctr.), Argentine scientists and directors of Fermilab.

ARGENTINE PHYSICISTS AND ENGINEERS AND THEIR PROMINENT ROLE AT FERMILAB IN CHICAGO

In Batavia, Illinois, located approximately 100 kilometers west of Chicago, the Fermi National Laboratory (Fermilab), United States' main particle physics and accelerators laboratory, was created in 1967. It has about 1750 employees that collaborate with over 50 countries in physics experiments and includes Argentine scientists specialized in cutting-edge technology, as well as professionals from around the world .

During his visit to Chicago, Ambassador Jorge Argüello toured the laboratory; it occupies 6,800 acres and is managed by the Fermi Research Alliance LLC (FRA) for the U.S. Department of Energy Office of Science. The first proton accelerator for cancer treatment was built there, and the technology for the industrial production of

superconducting magnets used in MRI machines currently used for medical diagnostics around the world was also developed at Fermilab.

Accompanied by Fermilab's Director, Dr. Nigel Lockyer, and other members of the board, the ambassador emphasized the outstanding performance of the Argentine physicists and engineers working at the laboratory, and stressed that most of them hold positions of leadership and visionary development in science and technology. He also met with Argentine physicists Marcela Carena and Carlos Wagner, who joined the tour. Both graduated from the Balseiro Institute, located in the Bariloche Atomic Center (which partially belong to the National University of Cuyo), and teach at the University of Chicago.

A TEAM OF SCIENTISTS ARE WORKING ON THE NEXT GENERATION OF EXPERIMENTS IN THE SEARCH FOR DARK MATTER TO BE INSTALLED IN THE ATUCHA-2 NUCLEAR REACTOR.

The research areas of these two scientists focus on developing models to explain dark matter, which accounts for 85% of the matter in the universe, and whose composition is unknown. They also research other issues that are as yet unexplained under the current laws governing particle physics.

Wagner is head of the Theory Group of the High Energy Physics Division at Argonne National Laboratory in Lemont, Illinois, while Carena is head of the Theoretical Physics Department at Fermilab. She recently wrote an article that will be on the cover of Scientific American Magazine in October 2021, on possible explanations for the recent results of the Muon g-2 (G minus 2) experiment at Fermilab. This experiment, based on muons (particles similar to the electron but heavier), made headlines worldwide due to the first results presented in April 2021, and opens the possibility that a new type of physical force could fundamentally change our understanding of the Universe.

The ambassador also visited the laboratory headed by Juan Estrada (Universidad de Buenos Aires -UBA- and Instituto Balseiro), another Argentine scientist whose group, in close collaboration with researchers from institutions in Bariloche, Buenos Aires and Bahía Blanca, specializes in developing a new type of low noise silicon detectors, known as "Skipper -CCD". Currently these sensors represent the

best tool in the search for dark matter in a certain mass range, and they have the ability to help understand one of the greatest enigmas of current science.

On the other hand, scientists who are currently working on projects related to Argentina also play a prominent role. In fact, members of the team of Argentine scientists at Fermilab are building the next generation of dark matter experiments to search for dark matter, SENSEI and OSCURA, and the VIOLET experiment with neutrinos (the most enigmatic and abundant particles in the universe), to be installed in the Atucha-2 nuclear reactor in the Province of Buenos Aires.

Researchers Javier Tiffenberg, a graduate of the Faculty of Exact and Natural Sciences of the UBA, and spokesperson for the SENSEI experiment; and Guillermo Fernandez-Moroni, who graduated in engineering at the National University of the South (UNS), who leads the efforts to use Skipper-CCDs in tests in nuclear reactors are part of this group, as well as Leandro Stefanazzi, an engineering graduate of the UNS, focused on the development of the electronics for the experiment; Ana Botti, a graduate of the UBA; and Fabricio Alcalde, trained at the Bariloche Atomic Center (CAB). Botti and Alcalde are currently working in Argentina and were recently appointed members of the Fermilab Cosmology Center.

Current efforts to develop detectors to understand dark matter and neutrinos are of special importance for the next generation of experiments that could be installed in the planned Andes laboratory in the Aguas Negras tunnel. Simultaneously, Argentine scientists at Fermilab are actively collaborating in the development of the Lambda Laboratory at the UBA, in the research of quantum sensor technologies. In turn, they continue working on the development of electronics and microelectronics with the CAB and the UNS.

In this meeting of the ambassador with Argentine researchers and scientists from Fermilab, Gaston

ARGENTINE RESEARCHERS
AT FERMILAB ARE ACTIVELY
COLLABORATING IN THE
DEVELOPMENT OF THE LAMBDA
LABORATORY AT THE UBA THAT
ARE WORKING ON QUANTUM
SENSOR TECHNOLOGIES.

Gutierrez was also present. He graduated from the University of La Plata and is carrying out tests aimed at understanding the expansion of the universe. On the other hand, Daniel Elvira, who graduated from the UBA, is head of the Department of Artificial Intelligence and Software at Fermilab, and maintains an active collaboration in this field with scientists and students in Argentina .

The ambassador and his entourage visited three other relevant laboratories: the Quantum Center for Materials and Superconducting Systems, which specializes in the research and development of “qubits”, basic elements for building computers and quantum sensors, which benefits from Fermilab’s unique capacity in the development of superconducting cavities, while the Muon g-2 experiment, and ICARUS, explore the behavior of neutrinos.

The ambassador also underlined the importance of the collaboration between Fermilab and institutions in Argentina which significantly contribute to the development of talent and infrastructure in our country, and he proposed that these collaborations both at an academic and industry level, be stepped up. ■