## Argentina Revives Its Scientific Legacy

by Cynthia R. Rush

June 27—On June 10, at a gathering at the Casa Rosada—Argentina's Presidential Palace—in Buenos Aires, a very proud President Cristina Fernández de Kirchner watched via video hookup as NASA launched the SAC-D Aquarius observation satellite from Vandenberg Air Force base in California. Built in Argentina by the leading-edge technology company INVAP, in collaboration with Argentina's space agency CONAE, NASA, and the French, Italian, and Brazilian space agencies, SAC-D Aquarius will use a broad spectrum of parameters to monitor and discover more of the galactic processes that affect the Earth, including, among other things, natural disaster precursors.

As she watched, Fernández had in view a live video transmission of Argentine schoolchildren who were also watching. "This [satellite] reflects the real nation, the country [our enemies] don't want revealed and try to distort," she declared (emphasis added). Thus, "this is the Argentina we must put on display every day, for these kids with their netbooks, and the apparatuses to teach them about space activities, and to train new scientists.... It is so important," she stressed, "that our children see the infinite possibilities which these new [technologies] offer."

Toward that end, she said, rather than study law and accounting—"Do you see how many accountants we have in Argentina? What I want now are many more engineers, many biologists, and many physicists, because that's where the future lies" (emphasis added). The building and launching of the SAC-D Aquarius came "from our country," Fernández exclaimed. "This is a great day! Today, we're all so proud to be Argentines!"

## 'Our Contribution to the World'

As well they should be. As LPAC-TV explained in its June 17 video (http://www.larouchepac.com/node/18493) on the SAC-D Aquarius launch and Ar-

gentina's tradition of scientific excellence, at a moment of global crisis, when crazed government leaders in the U.S. and Europe are following Wall Street and City of London orders to impose savage austerity on their own people, and continue bailing out a bankrupt financial system, Argentina has chosen an entirely different path.

The development and launch of the SAC-D Aquarius reflect this South American nation's commitment to using science for the protection and betterment of humanity. Contrast this to Barack "Nero" Obama, who is slashing funding for vital satellite technology required to monitor natural disaster precursors and issue the early warnings that can save lives. In her on-the-ground report to LPAC-TV from the Casa Rosada on launch day, LaRouche Youth Movement (LYM) member Betiana González described the satellite "as a contribution from our country to the world."

With its nine instruments—five from Argentina, two from France, one from Italy, and the Aquarius instrument from NASA—the satellite will measure the changes in salinity of the world ocean, variation of which can affect the global water cycle, including precipitation, evaporation, and ocean circulation. The Aquarius instrument itself, provided by NASA, is capable of measuring even the tiniest changes in salinity, which

will assist in creating global salinity maps every seven days.

The SAC-D will also measure humidity and temperature of soils, intensity and distribution of night lights, snow quantity, ice concentrations, the effect of cosmic radiation on electronic devices, and precursors of natural disasters. All data will be accessible to the public, as well as to scientists or scientific institutions anywhere in the world.

On the occasion of the satellite launch, CONAE's director Conrado Varotto told reporters that a major objective of Argentina's space program "is related to natural emergencies and health, to not only act when they have just occurred and provide information for what's called the mitigation stage ... but also to be able in the



Argentine President Cristina Fernández de Kirchner addresses a gathering at the Presidential Palace on June 10, as participants watch NASA's launch of Argentina's SAC-D Aquarius observation satellite (left)—a triumph of Argentina's scientific heritage.

future to issue what's known as early warnings." My life's dream, he said, "is that someday we'll be able to warn of earthquakes six months in advance."

## **A Space Renaissance**

Fernández de Kirchner's policy of aggressively promoting and financing the development of science and technology in a variety of fields, building on what her late husband and former President Néstor Kirchner began, has created

the optimistic and fertile environment in which projects such as the SAC-D Aquarius can flourish. As she told the Casa Rosada audience, "I'm passionate about my country, about science and art.... They appear to be different, but I say that the passion and creativity an artist uses when he sculpts, paints, or designs, is the same passion, ingenuity, and creativity that an engineer, a physicist, or a biologist uses when he looks through the microscope...."

As a reflection of that passion, the President acted almost immediately after her Dec. 10, 2007 inauguration to create the Ministry of Science, Technology and Productive Innovation. Since then, her government has worked through that ministry, as well as through other scientific and educational institutions, to support and

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increase funding for Argentina's nuclear energy program, including the construction of new reactors, as well as a multitude of other projects. This focus has succeeded in attracting back to the country hundreds of scientists and engineers who were forced to leave in the 1980s and 1990s, because they had no place in the deindustrialization plans that London and Wall Street had hatched for the country.

Funding is key, the Argentine leader said. "We have the human resources, but human resources without financial resources can't do anything." It is the "State in a sovereign country," she underscored, that can provide the necessary resources for crucial scientific endeavors.

But as LYM member Emiliano Andino pointed out in the LPAC-TV video, the current government's commitment to science "didn't come out of nowhere." Rather, it's a reflection of Argentina's "classic scientific humanistic legacy," which made enormous strides in the last century, particularly during the first 1946-52 Presidency of Juan Domingo Perón, when scientists and engineers from all over Europe, but especially from Germany, "found in Argentina a fertile culture interested in sowing this passion for ideas." Among those who emigrated to Argentina was German aerodynamics expert Kurt Tank, a former student of Albert Einstein at the Technological University of Berlin, who designed the famous Pulqui II aircraft.

"The efforts toward thermonuclear energy, and the successful development of aeronautics, rocketry, biology, and space medicine, established a legacy that we see revived today," Andino reported. It was space pioneer Teófilo Tabanera, he said, who in the 1930s "insisted on our natural destiny toward space exploration and colonization as an inevitable and unpostponable step." Those scientists and engineers who sought to escape the oligarchical systems that suffocated scientific freedom were inspired by Tabanera's leadership. The widely respected Tabanera later collaborated closely with NASA.

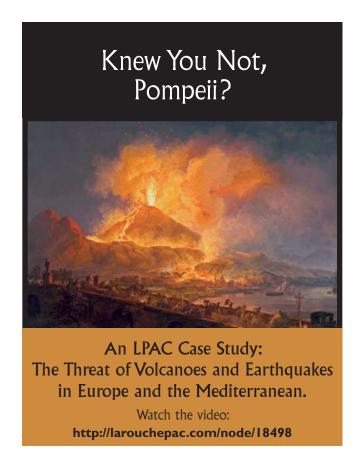
## Do What the Empire Hates

By the 1950s, a decade of the Perón government's purposeful encouragement of science allowed Argentina to produce aircraft as sophisticated as those developed at the same time by the U.S. and the Soviet Union. During the Korean War, the U.S. Air Force showed interest in the Pulqui II's superior design, and sent a representative to Buenos Aires to discuss purchasing Pulqui planes with Perón.

Even beyond that, as seen in the Argentine Air Force's development of the medium-range Cóndor missile in the 1980s, the country had developed the ability to support a space program based on its own rocketry.

In the 1990s, when then-U.S. Defense Secretary Dick Cheney acted on behalf of British imperial interests and personally led the drive to dismantle the Cóndor project, that space program almost died, Andino noted. It represented a capability of putting satellites into orbit independently; and with a range of 1,000 kilometers, the missile was powerful enough to reach the Malvinas Islands, which Britain stole from Argentina in 1833, and which it still maintains as a colonial possession today. Both those potentials, Andino stated, are ones "the British Empire sincerely hates."

In the minds of the Argentine LYM members, their country's greatest challenge today is to "hold on tightly" to its precious legacy of scientific achievement, as it is this that defines its future. Andino concluded, that future will either see "the collapse of our species, or our transcending the coming long galactic season of natural catastrophes."



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