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# I. The British Oligarchy's Green Genocide

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IBERO-AMERICAN WEBCAST

## Climate Change or Creative Change: Mankind's Next 50 Years in Space

*This is the edited transcript of a Spanish-language webcast conducted September 26, 2019 by LaRouche Science Team member Benjamin Deniston. More than 200 people—over half of whom were students—were gathered in four locations: Mexico City; Hermosillo and Querétaro in Mexico; and Buenos Aires, Argentina. An excerpt of the lively Q&A session follows the presentation.*

I'm very excited to be speaking to all of you—connecting our continents of the Americas today. We are witnessing a number of very important global developments going on in the world: We've had this crazy UN Climate Action Summit occurring; for weeks and months there's been a building concern and recognition of the financial crisis; and just in the last few days, we see the moves threatening to impeach a democratically elected President Trump in the United States.

I want to emphasize that these are all components of



*Benjamin Deniston (left) with Dennis Small translating, conducting the Spanish-language webcast to Ibero-America.*

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one global strategic picture. The question is, what is the underlying issue? What is the single, unifying thread covering the whole global situation today? I would posit that the key question is: Will the world in the immediate future be governed by an oligarchical imperial system, or will the world be governed under a fair, humanist system. Confronted with that choice, it is critical to ask: "What are the corresponding conceptions of the nature of mankind, of the human species, which are connected to those two juxtaposed options for the world today?"

In that context, let's go directly to Lyndon LaRouche's unique notion of the space program. LaRouche's conception for a Moon-Mars space coloniza-



*The audience in Mexico City.*

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tion policy is indispensable today. This is a policy that he has supported for many decades. Helga Zepp-LaRouche has several times put a strong focus on Mr. LaRouche's 1984 [document](#), "The LaRouche Doctrine: Draft Memorandum of Agreement Between the U.S. and the U.S.S.R." This was a proposal to end the Cold War, to create a situation of peace on the planet. Mr. LaRouche's unique insights into how to actually create a stable, durable peace are just as relevant today as they were in the 1980s. I want to read a few short quotes from this document:

The political foundation for durable peace must be: a) The unconditional sovereignty of each and all nation-states, and b) Cooperation among sovereign nation-states to the effect of promoting unlimited opportunities to participate in the benefits of technological progress, to the mutual benefit of each and all.

And, a bit later:

The powers jointly agree upon the adoption of two tasks as the common interest of mankind, as well as the specific interest of each of the two powers: 1) The establishment of full economic equity respecting the conditions of individual life in all nations of this planet during a period of not more than 50 years; 2) Man's exploration and colonization of nearby space as the continuing common objective and interest of mankind during and beyond the completion of the first task. The adoption of these two working-goals as the common task and respective interest in common of the two powers and other cooperating nations, constitutes the central point of reference for erosion of the potential political and economic causes of warfare between the powers.

I reference this because LaRouche defined decades ago the needed framework to not simply stop possible war, but to create what he called durable peace—where you could have years, decades, generations into the future, a security guaranteeing you won't have the outbreak of war. The key to that is not simply a negative opposition to war and conflict, but a positive conception of what all mankind needs in terms of open-ended technological and scientific progress—missions that



EIRNS/Stuart Lewis

*Lyndon LaRouche addressing a conference on ballistic missile defense in Washington, D.C. on April 13, 1983.*

will bring together the entire global community in joint pursuit of scientific discovery, technological progress, and the application of these developments to increasing the global productive powers of labor, improving the global economy, and improving the conditions of life of all people. This is the necessary prerequisite for any sustained peace on the planet.

Although Mr. LaRouche's document was written in the context of the Cold War many decades ago, the core principles, the core ideas, are absolutely valid today. If we are going to create a situation of cooperation among the United States, Russia, China, Europe, all nations of the planet, it has to be premised on the positive future of mankind—typified by the Moon-Mars colonization space program.

### **Beyond the SDI: the Moon-Mars Mission**

Mr. LaRouche described his policy for the Strategic Defense Initiative, and how this grew into and became his idea of the space program in a speech he gave to a Schiller Institute conference on September 2, 2000. A video, released under the title, *The Secret of the SDI and*

*Space*, with excerpts of that speech, is available [here](#).

In that speech he said,

**Lyndon LaRouche [video]:** What we have to do is something completely different. We do have the ability to devise systems, new kinds of physical systems, which could deal effectively with thermonuclear missiles—that is, render them effectively, technologically obsolete, down the line. But that was not the extent of my proposal. The proposal was that, instead of having the Soviet Union and the United States engage in this crazy chicken game, called SALT I and ABM, why don't we find a way out of the conflict itself?

How? Because the Soviet economy, like the U.S. economy, is collapsing. The present policies of the U.S. economy, the present policies of the Soviet economy, ensure a collapse of those economies, physical collapse. So, why don't we change the policy? Why don't we go back to the space program of Kennedy, and let's do what we proved with Kennedy? Remember, according to the estimates that were made in the middle of the 1970s, the United States got more than a dime of additional GNP out of every penny the United States invested in the space program, the Kennedy space program.

The point is, that since increases in productivity come directly, only, from improvements in technology derived from fundamental scientific discoveries, the higher the rate you convert fundamental physical discoveries into practice, the greater the rate of increase of productivity per capita of population, and per square kilometer of area.

The problem of both the Soviet system and our own, although in different degrees, I said at the time, was that the United States was not generating a rate of net growth in physical productivity, sufficient to maintain the economy. Therefore, we needed a program for forced draft, science-driven technological progress, with some mission, like the Moon mission, but as a byproduct of that mission, such as the Moon mission, we would generate spillovers in terms of technological progress, by such a crash, to put the United States economy back on the plus side, in terms of net growth.

The Soviet economy does not work for similar reasons, different, but similar reasons. Therefore, if the Soviet Union, with its vast military-scientific technological capability, were to put that capability, in cooperation with us, in global technological progress, and if we focussed upon developing countries—South America, Africa, Asia—to do what [President Franklin] Roosevelt proposed be done for these countries, had he not died, then the benefit of such a program would put the two economies back on the plus side, together with Europe; and it would also be a way of creating a global agenda which would solve the conflict problem.

Now, that was the SDI, in original form, which was what [President Ronald] Reagan proposed on March 23, 1983, in his television [broadcast](#), nothing else. Later, due to the Heritage Foundation and other clowns, that definition of SDI was sabotaged, and destroyed. As a result, in the field, even though there are a few competent people rattling around in the cages there, there is no competence in the U.S. military on this question of missile defense. It was destroyed in the summer of 1983, through the Heritage Foundation's influence on Reagan Administration policy. . . .

[But my proposal] had tremendous support: In 1982 and '83, even in '84, I had meetings with some of the highest-level military and other authorities in Western Europe, and elsewhere, as well as in the U.S., on this question. I was an integral part of the planning, and campaign for this. I carried this message into Europe before anybody outside the National Security Council, except me, knew about it. And only a few people at the National Security Council knew about it, and some of them tried to sabotage it the minute they found out about it. But this shows there was an approach, which could have solved the problem. Andropov turned it down cold. Other people in the Soviet Union looked at it much more seriously, but Andropov—who had a commitment to something else at the time, namely, the British—turned it down flat, without discussion. And that was the way it got killed. . . .

Now, we did the same thing later, coming out of '85. We had a friend of ours, who died, Krafft Ehrlicke, who was a leading space scientist, first



Convair/NASA

*In 1958, during testimony before Congress, Krafft Ehricke presented a proposal to use the Atlas ICBM as a four-man space station.*

for Germany, then for the United States. And he had become a friend of ours. When he died of cancer, Helga, my wife, organized a conference, sponsored by others, for him. So, as part of this thing, we put our heads together: What would we do at a conference? We were getting his friends from all over the world, and so forth, and other interested people involved—we had this conference in Virginia, in Reston. What would we do?

Well, I said, let's take what he wanted to do, and go a step further. Now, Krafft Ehricke's favorite project was the automatic industrialization of the Moon, and he was the man who had been working on the project in the 1950s and later, for the industrial development of the Moon, with the idea that the Moon would be developed, as Krafft Ehricke and others had proposed also, as a base, an industrial base, on which we would build much of the weight of the spacecraft we'd use to explore the Solar System more extensively.

So, I said, why not go the next step? This is Krafft's project, he laid out a project that was very well defined; it's one thing to honor it. Let's do something more: Let's go to Mars! So, what I did was to take the base work that Krafft had done, and others had done, and simply took this, and said, here's the obvious. Here's why we have to go to colonize Mars—not to build

housing developments on Mars, not that sort of thing, but to create a Los Alamos-type science city under the surface of Mars, which would be a base for general, beyond-Mars space exploration, into the universe generally—to get away from the Sun, because the Sun is a very noisy place, and you can't see things, and hear things clearly, with all that noise of this big Sun rumbling around out there. So if you can get a bit further out, at a place where there's a much thinner atmosphere, you build a science-base out there, and you use that as a base from which to deploy other pieces of equipment into Mars nearby-space, then you can conduct observations of the universe, which we can't do from Earth. We can get into frequencies and so forth we otherwise can't get into.

But, I said, the reason for doing this, would be fairly estimated—it would take us 40 years to get a landing on Mars under these kinds of conditions. So, let's do it. Why? Because of the spin-off benefits of the science-driver project needed to make it in 40 years. It may take you 40 years to get to Mars, but you're going to get a lot of benefits on Earth from the technological spillover in the short run.

### **The Green Policy is Genocide**

**Deniston:** That was Mr. LaRouche defining his notion of durable peace, and where the Moon-Mars program fits into a recovery program for the global economy.

Every generation needs to have the opportunity, has the right, to contribute something fundamentally new to mankind as a whole. With the Mars program, this current generation should be looking at going back to the Moon, building industries on the Moon, building bases on the Moon, learning how to utilize the resources from the Moon itself. That can support the next generation going farther to Mars; building scientific cities on Mars, expanding our knowledge of the universe in ways we could never do outside of this Moon-Mars program.

As Mr. LaRouche emphasized, the technologies and science required to accomplish these missions will create the largest possible benefits for the economies

across the globe here on Earth. That is durable peace, because it creates growth, but it also creates a future-oriented mission that fulfills the requirements, the destiny of human creativity—what makes mankind unique. That’s the opportunity for the world before us today.

What we just saw at the United Nations with this climate change conference is the opposite. That whole event, and everything it represents, is meant to stop and defeat this type of future-oriented program for the planet. Despite what they tell you in the media, from the United Nations, from other outlets, this is not really about climate. There isn’t a climate crisis; mankind is not going to create a climate crisis with his human economic activity—especially not from CO<sub>2</sub> emissions. But, as we’re going to discuss, this is actually an economic policy to suppress development, to limit population growth, and re-implement an imperial or colonial policy.

I want to highlight a quote from a very influential figure in this whole climate scare and broader environmentalist movement. This is a quote from Prince Philip, who is the Royal Consort to the Queen of England and has been one of the most important figures promoting the broader environmentalist movement going back to the 1950s and 1960s. In a 1981 interview with a U.S. publication called *People* magazine, Prince Philip said:

I was in Sri Lanka recently, where a United Nations project set out in the late 1940s to eradicate malaria. It’s an island, and it was therefore possible to destroy the mosquito carrying the disease. What people didn’t realize was that malaria was actually controlling the growth of population. The consequence was that, within 20 years, the population doubled. Now they’ve got to find something for all these people to do, and some way to feed them. Human population growth is probably the single most serious long-term threat to survival. We’re in for a major disaster if it isn’t curbed; not just for the natural world, but for the human world. The more people there are, the more resources they’ll consume, the more pollution they’ll create, the more fighting they will do.



Prince Philip in 2007.

Public Domain

We have no option. If it isn’t controlled voluntarily, it will be controlled involuntarily by an increase in disease, starvation, and war.

So, that gives you a taste of the underlying ideology of the people who created this narrative of a climate change crisis. It emerged from this oligarchical ideology of population reduction—the belief that a small number of people should control the world’s resources, keep the population low and under-developed, and utilize whatever means they can to force that system on the world.

### Margaret Mead Speaks for the Oligarchs

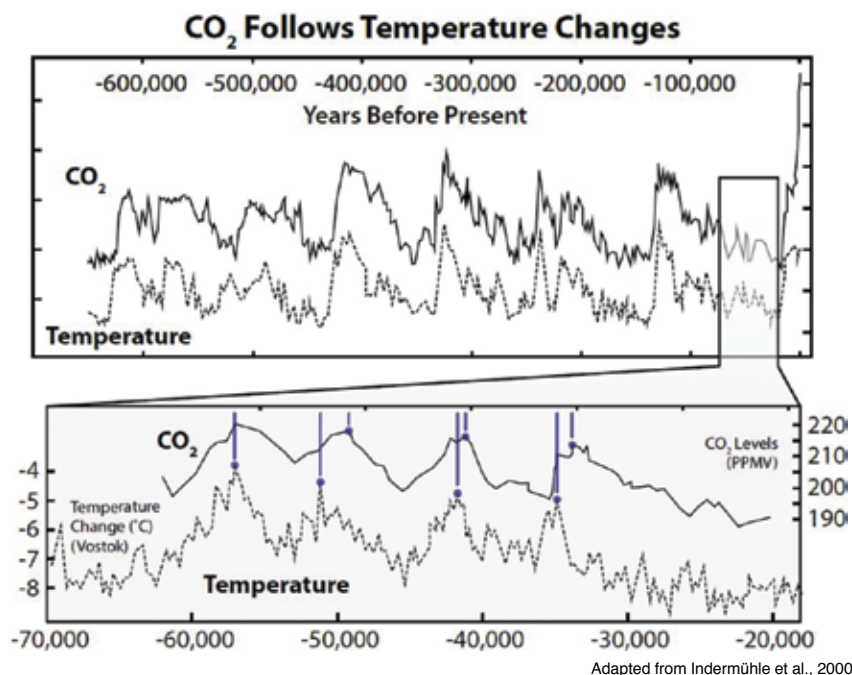
Let’s move on to a 1975 conference, called “The Atmosphere: Endangered and Endangering.” This was a very important [event](#), which preceded the climate change scare or global warming issue. In her keynote to this conference, one of the organizers, Margaret Mead said the following:

We are proposing that, before there is a corresponding attempt to develop a law of the air, the scientific community advise the United Nations and individual powerful nation-states or aggregations of weaker nation-states, in an attempt to arrive at some overview about what is presently known about the hazards to the atmosphere from man-made interventions, and how scientific knowledge, coupled with intellectual social action, can protect people of the world from dangerous and preventable interference with the atmosphere upon which all life depends.

That might sound somewhat reasonable, but then she continues, and identifies the real objective of this 1975 conference, saying:

What we need from scientists are estimates presented with sufficient conservatism and plausibility, but at the same time, as free as possible from internal disagreements that can be exploited by political interests. That will allow us to start building a system of artificial but effec-

FIGURE 1



tive warnings. Warnings which parallel the instincts of animals who flee before the hurricane.

This was a key conference. It preceded the launching of the climate change scare. As conference organizers said very clearly, as Margaret Mead said, they weren't looking for definitive scientific evidence, or scientific discovery. They were looking for plausible estimates that they can exploit in order to create scare stories that will force the masses of the population to respond as if they were animals fleeing from a natural disaster. Many of the conference participants had already bought into this population reduction ideology.

In that context, I would like to take a few minutes to actually discuss some of the science of carbon dioxide and climate. But keep these statements from Margaret Mead and Prince Philip in your mind, in the background.

### CO<sub>2</sub> Does Not Cause Climate Change

The first point we want to make is that the historical evidence and the geological evidence show that changes in the CO<sub>2</sub> level do not control the climate. This is one graph [Figure 1] that was used by former Vice President Al Gore, in an attempt to show that CO<sub>2</sub>

controlled the Earth's climate and temperature. What you see in the top of the graph is an extremely close relation between global temperature and carbon dioxide levels for the past 600,000 years. However, when this data was studied more closely, it was shown that the temperature changes came *before* the CO<sub>2</sub> changes. So, the CO<sub>2</sub> was *responding* to the Earth's climate system, not the other way around. The CO<sub>2</sub> was released from the oceans as an effect of the changing temperature. Many people were told that this proves that CO<sub>2</sub> controls the climate, when in fact, it shows the opposite.

On the next graph [Figure 2], we look at a longer time scale, covering the past 500 million years; the time period during which complex life has existed on Earth. On the top, we see the variation in CO<sub>2</sub> levels, and on the bottom, temperature. There is no correlation. There are periods when CO<sub>2</sub> goes up, and temperature goes down. So, the idea that CO<sub>2</sub> simply is going to control what the Earth's temperature does, is not proven by the historical record.

Now it is true that over the past century we have seen a slight warming of the planet, and that has corre-

FIGURE 2  
Temperature and CO<sub>2</sub> Levels for Past 500 Million Years

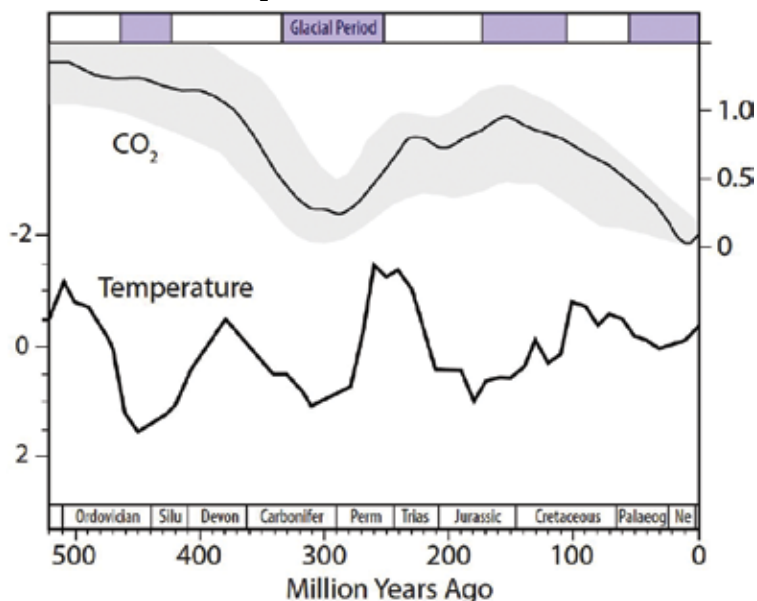
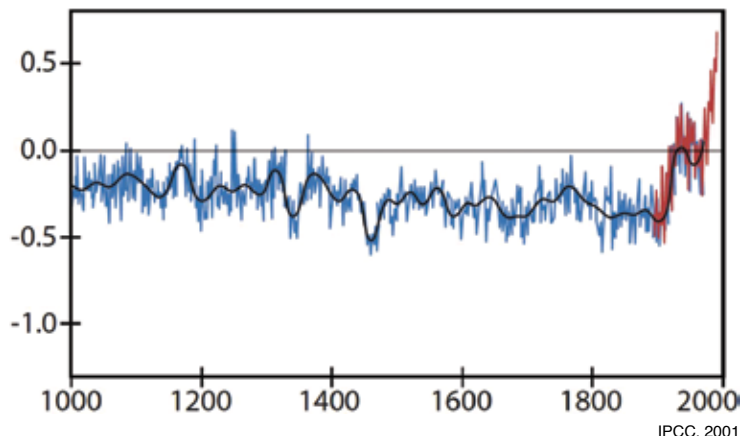


FIGURE 3

**'Hockey Stick': Global Temperature Change Over Past 1,000 Years**



sponded to higher levels of CO<sub>2</sub>. However, it has never been proven that the CO<sub>2</sub> is causing that change in temperature; and it's never been proven that that isn't simply a natural variation of the Earth's climate.

This [Figure 3] is a rather famous fraudulent graphic which was used to attempt to push the climate change scare onto the population. This is the supposed temperature of the planet over the past 1,000 years. You see what appears to be a relatively stable level of temperature until the last 100 or 150 years, when all of a sudden, the temperature shoots up; which corresponds to humans emitting CO<sub>2</sub> emissions. This was used to claim that the natural climate does not vary much at all, and therefore any changes that we're seeing now must be due to human activity.

However, it was shown that this entire study was fraudulent. They used a methodology that would guarantee this type of graph would be produced. More recent studies of this same time period have shown that the natural variation of the climate over the past 1,000 years is far more varied than what was previously claimed. The recent periods of temperature change and climate change are completely consistent with what we know about the natural history of the Earth.

I want to highlight one last piece of evidence. This [Figure 4] is a comparison of projections of global temperature according to climate models, compared with what actual temperatures have been recorded. The black line shows what the models would predict, based on the CO<sub>2</sub> emissions, while

the red and blue lines show actual measurements of temperature from satellite measurements.

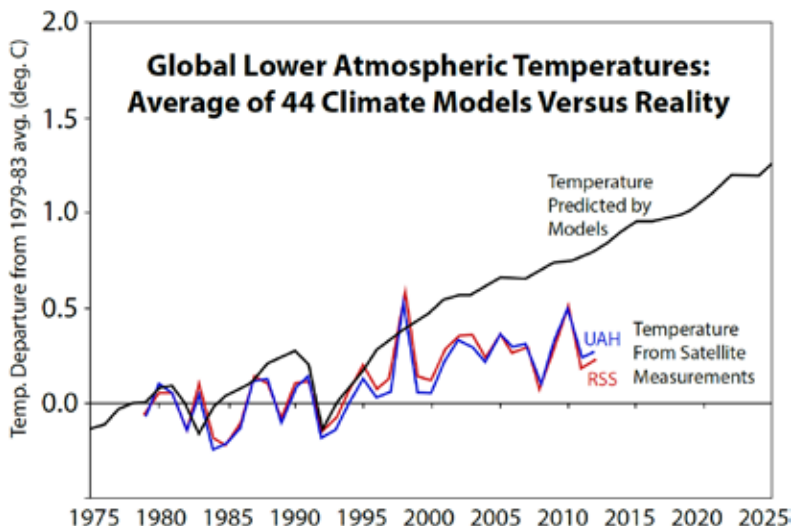
If you contrast the scientific realities of CO<sub>2</sub> and climate, against this never-ending barrage of claims that we're heading into a climate crisis, it really forces the question of what is really behind this policy. The climate historical and geological records do not show that CO<sub>2</sub> is a major driver of climate, and the models that have been used to claim that we're heading towards a crisis, have been shown to be fraudulent—or inaccurate, to put it nicely. We've been given studies and data which have been presenting completely incorrect pictures of what's actually been happening.

**The Oligarchy's Agenda**

Think back to what Margaret Mead said. She said, you, the scientist—she was speaking to scientists at the 1975 conference—need to give us plausible estimates that we can exploit to scare people into going with what we want to push. If you have that in mind, everything we're seeing now is completely clear. The science doesn't add up with the scare stories being run in the media. We've been repeatedly told we only have five years to act, or ten years to act; that's been going on for 30 years now. There is no crisis from CO<sub>2</sub> emissions—but we do have a serious problem with the people who have created and pushed this whole scare story.

I want to return to Prince Philip, who openly spoke about how it was bad that we eradicated malaria, because he thinks diseases should be allowed to run rampant to reduce world populations. He was a leading figure in a

FIGURE 4



group of people who created the modern environmentalist movement in the 1950s and 1960s. It was not about protecting water or soils or the Earth; it was about suppressing the economic development of countries around the world. Together with Prince Philip, you had Julian Huxley, also of the United Kingdom, and Prince Bernhard of the Netherlands. These were three leading figures who created the World Wildlife Fund, which became one of the most prominent and leading environmentalist organizations, along with a whole array of other institutions to push this genocidal perspective.

Julian Huxley was a leader of the British Eugenics Society, both before World War II and well after World War II. Even after the world was exposed to the horrors of Hitler's eugenics program, Huxley continued to promote eugenics, including in his position [as the first Director-General] at UNESCO [in 1946]. Prince Bernhard of the Netherlands worked as a member of the Nazi SS intelligence unit. He only resigned from the Nazis in the mid-1930s for political reasons of his marriage [to Queen Juliana]. After the war, he was the director of KLM airlines, when it was actively flying Nazi war criminals out of Germany to escape prosecution.

Then we have Prince Philip, who had similar relations with pro-Nazi elements in the British establishment in the 1930s. He became a co-founder of the World Wildlife Fund and continued to express his views about population reduction very clearly, as we saw from that 1981 quote.

The point is, we had leading proponents of eugenics, pro-Nazi forces, and leading forces of British imperialism, who came together after World War II, and they created a new way to implement their policies of population control, control of nations, control of resources under the name of "environmentalism," and more recently, "climate change." Obviously, many of the general population who have been scared into supporting the climate change issue, don't necessarily believe all of these things. But they're being duped to follow a policy that was created by these imperial forces.

Even today, Mark Carney, who is Governor of the Bank of England, is now creating this Green Climate Fund by which they have pulled together 130 of the world's largest banks, and they're going to say, we're going to refuse to invest money in any project that doesn't cohere with their CO<sub>2</sub> reduction program. That means no economic development is going to be allowed under that policy.

## **LaRouche: There Are No Limits to Growth**

Now, look at what China has done over the past 25 years. They've lifted hundreds of millions of people out of poverty. But to do that, they had to develop a lot of power; almost a ten-fold increase in their power consumption over the past ten years. A major increase in energy-flux density. That came with a lot of CO<sub>2</sub> emissions. If other nations are denied the ability to emit CO<sub>2</sub>, they're going to be denied the right to develop. That's the underlying political objective behind the climate change scare. The intention is to promote a policy of limits to growth, world population reduction, and a new form of imperialism. That's what we have to defeat. That is the system that is collapsing.

We must replace that with Lyndon LaRouche's policies of No Limits to Growth, durable peace implemented through shared technological and scientific progress—such as lunar industrialization and human colonization of Mars. The Moon is covered in the best available fuel for fusion power that we know of. There are simply no limited resources; only limits on our science and technology. If we go to the Moon and develop the fusion resources from the Moon, we can not only power the entire Earth; we can power mankind's expansion through the Solar System. That is the policy of durable peace, durable survival that we are really on the verge of implementing in the current world situation.

With that, I would be happy to take any questions, and I would love to hear what you have to say.

## **Excerpts from the Discussion Following Ben Deniston's Presentation**

**From Argentina:** I'm greatly impressed by the policies and programs of the Schiller Institute, based on its founder Lyndon LaRouche, especially the proposal for the New Silk Road. Now we have just heard a well-documented presentation on Project Artemis, for international cooperation of the world's leading powers for a Moon-Mars mission. Is this part of the Schiller Institute's strategy, and its political activity, to change the current predatory paradigm and establish collaborative projects for the benefit of all mankind?

**Benjamin Deniston:** Yes, that's exactly it. I would



just like to reference Mr. LaRouche's memorandum for the U.S. and the U.S.S.R., his LaRouche Doctrine from 1984. And that's exactly what he said: If we want the powers of the world to cooperate, we can't just say "war is bad"; we can't just try to stop conflicts. If you really want to address the underlying issue, you have to create the conditions, as Mr. LaRouche said, for durable peace, which has a very specific requirement for mankind, for human beings. Because it is our nature to progress, to develop. No animal species is like mankind. Animals have fixed ecological relations to the environment, they can't change that.

Only mankind has demonstrated something completely different, something completely unique, where we go through what seems to be almost like an evolutionary change, but it's purely cognitive, it's purely creative in its origin and its source. And so, mankind, when it's being natural and healthy, is always moving from one stage to the next.

Mr. LaRouche was clear that empire and oligarchies that try to suppress and stop that development, are the real threat, that we might have conflicts and disagreements, but as long as we are moving forward as one mankind towards a common objective that encapsulates the whole population, we can have the conditions to ensure we can move through any challenges and create sustainable peace.

Absolutely, space exploration, space development is key to the future cooperation and peace among the leading powers on this planet. I would reference the situation in the United States, where Trump is under attack because he is trying to move in this direction. He's not perfect on every issue. He has many issues that we might not all agree with. But the core fight in the United States, right now, is that Trump wants to change the U.S. foreign policy away from conflict with Russia, and away from these wars, like Afghanistan, Iraq and Libya, which have been devastating for the world over the last two Presidential regimes. That is what's behind the attempt to impeach him, to try and remove him from power around exactly this issue.

At the same time, the global financial system is showing signs of a new crisis, and we see the reemergence and accelerated push of this climate change fraud. I see all of these as part of one process. This old, imperial, oligarchical paradigm is failing, and there is a real potential to replace it with LaRouche's program, and the space program serves as a leading point of that program.

I would also like to thank the first person for their

remarks: I appreciate them very much. I think his points are absolutely valid, and I'm glad he made them.

### **Patriot and Citizen of the World**

**From Mexico City:** I'm a student of international relations. I'm sort of struck by this, because I'm one of those people who has a moral problem, because I don't know whether or not to believe everything they tell me is true. I really thank Mr. Deniston for having enlightened us with this information. How can we fight against this fear? How can we unite to benefit all humanity?

**From Mexico City:** I'm also a student of international relations. You said we could go to the Moon. What impact would that have on the equilibrium of nature? I'm concerned about that.

**Deniston:** Regarding the second question, I think we need to develop the Moon. I'm not sure of any negative impacts that would have. If we take a big-picture look, this Solar System is not going to last forever, the Sun is not going to last forever, whether it's a few billion years from now, four or five or two, we can know with scientific certainty, at some point, the entire Solar System is going to be uninhabitable. The only form of life that we know of, that has any potential to continue life's existence beyond the Solar System, into the galaxy, is mankind.

That doesn't mean we have to destroy environments as we do that: Human progress can improve environments and make things better. For example, what the climate change scare promoters do not say, is that the Earth has been getting greener, with more plant life, year after year after year, for the last four decades. Some of it is due to human irrigation and management of water systems; some of it is due to the increased CO<sub>2</sub> levels in the atmosphere, ensuring that plants are more productive. As we develop and advance technologically, we can improve the environment and improve the planet in a harmonious way, and we should look at that as our mission, our unique characteristic as human beings. As far as we know today, we're the only form of life that can ensure that process of growth continues into the long-term future.

The biggest environmental problems we have come from poverty and lack of development, so we need to push forward with new technologies and uplift living standards, if we want to improve things. That's what I would say.

**From San Juan del Río, Querétaro, Mexico:** Why should we colonize space?

**From Mexico City:** I'm a university student studying robotic engineering. My understanding is that nuclear plants basically produce steam as a by-product. What would happen with fusion? Do you use uranium and plutonium? And if the idea is to travel to the Moon to get helium-3, is helium-3 an element like plutonium?

### A Spiritual Sense of Science

**Deniston:** To take those questions in reverse order, we would harvest helium-3 from the lunar surface, and then we could transport the helium-3 back to Earth, to be used in fusion reactors on Earth. It could also be used to power spacecraft, which can depart from orbit around the Moon with fusion-powered drives.

The reason we are interested in helium-3 is that it is a unique type of fusion reaction, which allows a much more efficient conversion of all of the energy produced when you fuse the elements. You can be far more efficient in utilizing that energy that's produced: For electricity generation you can produce more electricity, and for rocket systems, for space travel, you can produce more thrust, more push for your rockets. So, we would want to use helium-3 to power the Earth, and to power mankind's travel throughout the Solar System. The amount of energy in 1 kg of fusion fuel, like helium-3, is a million times more than 1 kg of coal or oil.

This is critical for space travel, because you can take the equivalent of far more fuel with you, and you can do completely new modes of travel through space. Currently it takes about eight months to go from Earth to Mars, which is a very dangerous trip for astronauts, because of the zero gravity and the high radiation environment. With fusion-powered systems, with helium-3, you could get there much faster, potentially as fast as two to three days, so you're transforming an eight-month trip to one that would take less than a week. This would completely revolutionize mankind's access to the Solar System. We could have manned missions to Mars, to other places, and we can really investigate the Solar System in completely new ways.

At the same time, the helium-3 can be used again back on Earth, to provide immense amounts of power. If people imagine the old U.S. space shuttle, the spacecraft we used to use to send people into Earth orbit, if that cargo bay was filled with helium-3 that would produce enough power to power the entire United States



CC/Lorenzo Caccianiga

*The control building of the Pierre Auger Observatory, designed to detect and measure ultra-high-energy cosmic rays, located in Malargüe, Argentina.*

for about a half-year—one cargo bay load. It's really an incredible amount of power, provided by fusion.

Why do we want to colonize space? Because it's a big universe out there. We're on this one little planet, and the whole Solar System is sitting there, waiting for us. We have new things to discover, new adventures to take, and entire areas to develop throughout the Solar System. It's not about abandoning the Earth, or forgetting about the Earth, but it's a natural process of human development and expansion. If you want to look at it in a practical way, we have all kinds of dangers posed to life on this planet, asteroids and comets—so in that sense, we absolutely need to go into space, and we need to become a species that has some control over the Solar System, to prevent these kinds of threats from ever becoming catastrophic tragedies.

But in a more spiritual sense, this is humanity's destiny to develop and expand and grow. Any society that just repeats the same activities, generation after generation after generation, degenerates. We need to progress, we need to move into new frontiers. We need to give younger generations new challenges and new missions that will inspire them, drive their imagination, and give them the sense of a positive contribution to mankind as a whole, and space is one of the leading areas for that.

### Cosmic Rays and Rockets

**From Argentina, Air Commodore (ret.) Horacio Ricciardelli:** Back in the 1960s, Argentina had a number of international agreements, one of which was with the Max Planck Institute of Germany, in which

various rockets were launched containing a chemical compound, a plasma, which used the electromagnetic lines of the Earth and it took a little over eight minutes to travel from the South Pole to the North Pole. Since we are talking about developing space and shortening the time it takes to travel, there is a lot of research about using electromagnetic energy to travel. And even in the vacuum of outer space you could create your own electromagnetic field on the space vehicles.

A second question is that in the Argentine province of Mendoza, there is an institute that for many years has carried out experiments having to do with capturing cosmic rays. There are two such sites in the world: the other is in St. Louis, in the United States. Tanks are used which have special instrumentation and triple distilled water, in which the cosmic rays which are captured are capable of producing enough electricity to power a city of more than 20,000 people....

**Deniston:** I appreciate the question. The idea of capturing energy from cosmic radiation is new to me, so I'd be interested to look more into that, and I appreciate your bringing it up. The one thing I'm more familiar with is the role of cosmic radiation in the Earth's climate system, which is a very interesting area of study, and coincides with some of our discussion about climate change. We have many records that show that cosmic rays coming from our galaxy play a critical role in affecting clouds and cloud formation, which then has a major effect on climate.

And some rather amazing studies have shown, based on this relation, that the biggest driver of climate change throughout the long-term geological history of the Earth has been the travels of the Solar System through different parts of the galaxy as it orbits the galactic center, which have higher and lower levels of cosmic radiation, which opens up a rather fascinating investigation, where we can look at the history of the Earth's climate, which can tell us things about the nature of our galaxy, going back billions of years, all provided by this role of cosmic



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*A mockup of Argentina's Tronador (Thunderer) II, a liquid-fueled rocket designed to lift payloads into Low Earth Orbit.*

rays. It also shows you how little we currently really know about these larger questions of our relation to our galaxy.

Some of these questions about frontier technologies for space travel, alternative ways of powering spacecraft or providing energy, these are all things that need to be investigated in the context of this kind of Moon-Mars mission orientation program.

I also want to emphasize one additional element of Mr. LaRouche's program, what he discussed in the 1980s as the LaRouche Doctrine. He was emphatic that while the United States and the Soviet Union, at the time, should be collaborating and driving these frontier areas of scientific investigation in

space, that they also need to be engaged in exporting machines, tools, capital goods, throughout the developing world, to rapidly accelerate the development of all the economies of the planet, such that it's a global program to uplift the productive powers and the living standards of all nations. At the time, he discussed it as eliminating the relics of colonialism.

This is how we should look at the program today, where the United States, and other countries, like China, Russia, nations in Europe, are collaborating in these areas. There's room for all the nations to participate. The policy on Earth needs to be geared towards providing the infrastructure, technologies, and productive capabilities, required to uplift the global economy.

### Helium-3 and Fusion

**From Mexico City:** I'm majoring in aeronautical engineering, and I'd like to know: How would you go about transporting helium-3 from the lunar surface to Earth? How do you make sure no one country controls all resources? Would an organization be created to regulate these kinds of projects?

**Deniston:** I would refer you to the work being done at University of Wisconsin. They have an institute that has been studying this issue in great detail for many

years. The leaders of this grouping are a leading fusion scientist, who's studied fusion for decades, and especially focussed on the use of helium-3 fuel for fusion; and the other leader is a former Apollo astronaut, somebody who walked on the Moon, Harrison Schmitt. And they're two key figures in this institute and they've done, in collaboration with graduate students and other researchers, many, many studies on these questions.

They have designs for proposals for the mining apparatus, where you would need to provide a certain amount of heating to the lunar soil to release the helium-3, along with other gases which are also going to be useful for various uses; and then how to capture that, separate it, put it into the relevant containers, and then launch it into orbit for shipping back to Earth.

This is a highly complex endeavor, but with the right level of investment, it's certainly possible.

The important thing about fusion fuels, including helium-3, is they are incredibly energy-dense. So again, one space shuttle, one spacecraft worth of helium-3 fuel, could power the entire United States for a half-year, which is incredible. You don't need huge volumes; if you had a system set up for maybe 10, 20 shipments a year, that could provide a very substantial part of the world's power requirements. It doesn't have to provide all of them, but it would be an important contribution to the global energy needs, which would also be provided by hydropower, other forms of fusion, with other fuels, nuclear fission and so on. So helium-3 wouldn't be the sole source of energy for the global economy, but it would be an important contribution.

This would also be the opportunity for the fuller industrialization of the Moon. We can also produce all kinds of resources and equipment that we can use for our expansion into space, and this was the basis for Mr. LaRouche's collaboration with Krafft Ehrlicke, who was a space visionary from the Apollo era, a very eminent scientist and engineer, whose work is still being used today in some of the rocket systems used by NASA and other agencies.

They looked at everything you can do to develop infrastructure, manufacturing, and similar capabilities on the Moon itself, so we can create a situation where we don't have to launch everything up from the surface of the Earth, which is a very difficult and energy-intensive process. For example, we could be producing water and oxygen from the Moon, and providing that to space stations around the Earth, more cheaply and easily than lifting that up off the surface of the Earth. We could be producing components for spacecraft from the material

from the Moon itself, which would be far easier to then lift up from the Moon, because the gravity is so much lower, and you could build your spacecraft for going to Mars and other places, from material on the Moon.

Krafft Ehrlicke estimated that it was less than one-tenth of the energy and cost, to provide resources from the lunar surface, all the way down to Earth orbit, as compared with launching those resources from the Earth itself. It becomes far easier to develop the capabilities needed for mankind to really expand into the Solar System, if we develop the Moon in this way.

## Viewing the United States

On the other question: There is a very interesting, and somewhat complex situation in the United States. President Trump was elected, I think, not only because of who he is, but because of the state of the American people: Many of the people that voted Trump into office are people that both of the political parties had ignored, had forgotten about, didn't care about. These are people that have been treated very poorly by both parties in the United States, and their vote in 2016 signalled a real desire for revolt, for change in the U.S. political system, and that is still an ongoing fight.

At the very heart of the attempt to impeach Trump is his disagreement and conflict with the idea of trying to have a military confrontation with Russia, through the situation in Ukraine. So it just shows you that there's an ongoing fight, where Trump has emerged, to some degree, as a leader of people who are tired of the U.S. military policy of Obama and Bush, and have a desire to end that policy, and begin investing and rebuilding the United States economy again.

Trump represents a certain natural revolt against what had been very bad policies. And our activity in the United States, but also in collaboration with others—what's being done in all the locations on with us here, tonight, in Europe, in Asia—is critical. Because, as LaRouche always insisted, the most powerful thing we have are valid ideas. It's not the amount of people you have out in the streets, it's not how much money you have; it's that, do you have ideas, concepts that will work in unique situations, and that people will gravitate towards because they realize this is correct, and this is what needs to happen?

That's what we have right now. We have a situation where our leadership in providing these ideas is key. We're dealing with a situation where the existing system is breaking down and people are looking for alternatives to replace it. So let's do it!