II. Physical Economy

LAROUCHE PAC WEBCAST

Lunar Settlement 'Before Decade Is Out' Trump Channels Kennedy, LaRouche

This is the edited transcript of the La-Rouche PAC Friday Webcast of April 5, 2019. A video is available.

Matthew Ogden: Good afternoon! It is April 5, 2019. My name is Matthew Ogden, and you're joining us for our LaRouche PAC weekly broadcast here at larouchepac.com. With me in the studio is Bruce Director, a colleague of mine; and we have the honor of having Kesha Rogers join us via video from Houston, Texas. Hi, Kesha, how are you?

Kesha Rogers: Good morning!

Ogden: For our viewers who may not know Kesha, she ran for Congress twice in Texas, achieved the Democratic nomination for House of Representatives twice, two elections in a row. She also ran for Senate and forced the Senate election in Texas to a run-off vote. Kesha has championed the return of man to the Moon and to Mars, and the revival of the manned space program in the United States, for years. We're here to have a very exciting and fun discussion about the prospects for

that. As Kennedy said, "before the decade is out," maybe this time we will have a manned colony on the Moon.

Political developments over the last two weeks have been very exciting, and have moved very rapidly. Obviously, everybody knows that the summary report of the



Bruce Director



Kesha Rogers

Mueller investigation has come out of the Attorney General's office, and William Barr has said definitively, no collusion, no obstruction. What did Trump do as soon as that news came out? Well, he boldly moved to initiate a new era in space exploration in the United States, to channel the optimism unleashed with the end of this Mueller investigation into a new era of optimism for science, technology, and space exploration here in the United States and abroad.

White House Fact Sheet: 'Boldly Go'

Here, just very quickly before I introduce Kesha, this is what President Trump had to say. On March 26, the White House issued a <u>fact sheet</u> titled, "President Donald J. Trump Is Boldly Putting Americans Back on the Moon." I'll just read it:

This time, we will not only plant our flag and leave our footprint, we will establish a foundation for an eventual mission to Mars and perhaps, someday, to many worlds beyond.

—President Donald J. Trump

The details follow:

ACCELERATING AMERICA'S SPACE EXPLORATION: President Donald J. Trump is setting a bold goal to put Americans back on the Moon by 2024.

- President Trump has received five recommendations, unanimously approved by his National Space Council, to accelerate America's space exploration program.
- President Trump also received four recommendations on streamlining export control regulations that followed a year-long review.
- The NASA Administrator will provide an update on the implementation of Space Policy Directive-1 (SPD-1) and the recommendations at the next Space Council meeting.
- The United States will seek to land on the Moon's South Pole by 2024, establish a sustainable human presence on the Moon by 2028, and chart a future path for Mars exploration.
- · NASA's lunar presence will focus on science, resource management, and risk reduction for future missions to Mars.
- NASA will create a Moon-to-Mars Mission Directorate and make all necessary efforts to achieve Exploration Mission-1, a foundational uncrewed mission around the Moon.
- Exploration Mission-1 will take place no later than 2020 and a crewed mission around the Moon, Exploration Mission-2, will take place no later than 2022.
- NASA will unleash American industry, including through public-private partnerships, to enhance innovation and the sustainability of its space activities.
- To implement SPD-1, NASA will continue to improve its structure and management, and improve cost and schedule performance, seeking legislative authorization as necessary.
- The United States will engage with international partners to enable a sustainable lunar exploration and development program.

DARING AGAIN: President Trump is building a space program worthy of our great Nation and the American spirit.

- An American has not walked on the Moon in 47 years, but President Trump is working to change that.
- To achieve this goal, President Trump is taking action to ensure that American astronauts get to their destination quickly and sustainably.

REIGNITING AMERICA'S SPACE LEGACY: President Trump is keeping his promise to restore America's proud legacy of leadership in space.

• These recommendations follow President Trump's bold call for America to go back to the Moon and establish a foundation for an eventual mission to Mars.

- In December 2017, President Trump signed SPD-1, "Reinvigorating America's Human Space Exploration Program."
- The President's Space Policy calls for NASA to lead an innovative space program with commercial and international partners.
- Americans will return to the Moon for long-term exploration, followed by missions to Mars and beyond.
- President Trump has signed three additional SPDs to restore American leadership in space.

So, Kesha, what do you think about that?

Space Cooperation or Else a War Policy

Rogers: I am extremely excited. This is a breakthrough development, and as someone who has been a strong proponent and advocate for our manned space program here in Houston, and as someone who has been working for many years in promoting the return of our space program to greatness, I am ecstatic about the developments and the direction we're going in.

We saw in the past administration under the war policy of President Obama, the policy of "been there, done that, we don't need to get back to the Moon." All of that has now become a thing of the past. This President has redirected the country in the direction of a real mission orientation, that the space program is going to be the driver for international cooperation and for the future progress and development of mankind throughout our Solar System. Going back to the Moon is going to be the proving ground.

In a dramatic follow-up to his 2017 Space Policy Directive 1, President Trump declared that we were going to go back to the Moon within five years and establish a sustainable human presence on the Moon by 2028. We're going to return astronauts to the Moon for the first time since 1972.

Going back to the Moon in five years is a big undertaking, but at the same time, we've done this before. NASA technology, the technology from our international partners, from our commercial partners, is absolutely there, and we can accomplish this goal. It's going to take vision, mission, and determination as the NASA administrator James Bridenstine recently said in a discussion with NASA employees on the question of "Can we meet the deadlines? Can we meet the goals of funding, financing?" This is also going to take bipartisan leadership, it's going to take a commitment. You can't have a stalemate in Congress, you can't have a Continuing Resolution.

Slides from NASA Video









As Kennedy said, resources and the talents must be channeled to meet these goals. Today we have an even bolder initiative, but I think given the moment we're in right now, this is where our nation and the world should be going in terms of cooperation.

As you said, Matt, on the political situation, we are really at a turning point. There is a crossroads before us. Either we're going to go with this war policy of nuclear annihilation—which has been promoted by some such as NATO Secretary General Jens Stoltenberg, who just recently spoke with Trump and said our enemies are Russia and China,— We shouldn't be working with these people.

Contrast that to the recent remarks of Dmitry Rogozin, the Director of Roscosmos, the Russian space agency, who said, Roscosmos has a great relationship and partnership with the United States in space development, and that positive relationship needs to continue. So, despite those who want to push war and do not want to see this cooperation for human progress, we have to make a determination that our future is going to lie in something greater and something more positive for the next generations. This is the way to go, most definitely.

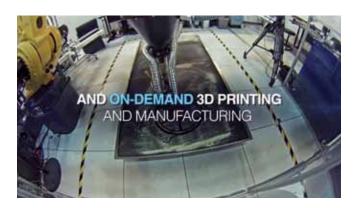
Timeline of NASA's Moon-Mars Mission

I want to take a few moments here to give you an outline of the timeline that's being proposed right now for these next five years for developing the platform for getting to the Moon by 2024. I want to quote from Bridenstine again as he developed the plan to escalate the President's call to get to the Moon by 2024. He said:

President Donald Trump has asked NASA to accelerate our plans to return to the Moon and to land humans on the surface again by 2024. We will go with innovative new technologies and











systems to explore more locations across the surface than was ever thought possible. This time, when we go to the Moon, we will stay. And then we will use what we learn on the Moon to take the next giant leap—sending astronauts to Mars.

NASA is so excited right now; they're putting out quite a number of beautiful videos to inspire people, showing the innovative technology that's already underway right now to get us back to the Moon. I want to show you an example right now. It's a 1-minute, 45-second NASA video, "We Will Go Forward to the Moon with Technology." [Plays the video.]

Rogers: That is very inspiring; it brings tears to your eyes. This is not just something that is just happening right now—I'm inspired because this is a result of a life of work by Lyndon LaRouche, what he dedicated his life to, to a science-driver mission orientation for the nation. We're going to speak more about this. Consider the work that Mr. LaRouche has done for a Moon-Mars mission orientation over the decades, and now that Mr. LaRouche has passed on, you can see that his works are being realized.

The idea of a Moon-Mars mission has to be centered in scientific and technological progress to advance all facets of our economy and our society. This is the direction we see the world going if we continue to commit ourselves to that direction, contrary to the policies of zero-growth or policies that stifle human progress. So, this is very inspiring.

SLS, Orion and the Gateway

I recently had a chance to tour the NASA Johnson Space Center's Orion program and some of the other programs. I just want to use some of the pictures I took

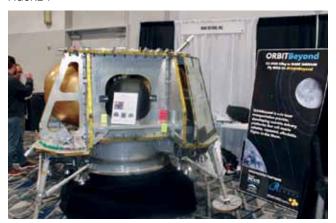


to illustrate the timeline for this 2024 mission.

What you're seeing here [Figure 1] is from the Lunar and Planetary Conference that I attended with my colleague Megan Beets. After the 2017 announcement by President Trump, reigniting a Moon-Mars program and his issuing Space Policy Directive 1, the first activity will involve commercial Moon deliveries in 2019. NASA has issued contracts to nine commercial companies to carry payloads to the Moon ahead of a human lunar landing. ORBITBeyond is one of those companies. So that's the first step.

Next, we have a picture [**Figure 2**] of the Space Launch System (SLS), the rocket that's going to carry the Orion spacecraft with the astronauts in it. The Orion spacecraft holds up to four astronauts.

FIGURE 1



In 2020, you'll have an Exploration Mission, or EM-1; that's going to use the Space Launch System and the Orion for the first with an uncrewed mission to lunar orbit. The second time SLS goes up, in 2022, it will be with a crewed Orion spacecraft.

This is a mock-up of the Orion [Figure 3], which will sit on top of the Space Launch System. That will take the astronauts to the Moon. So the second launch will take our astronauts aboard the Orion spacecraft around the Moon for the first time in 50 years.

This was quite exciting—and fun. This is me inside the Orion mock-up at NASA [Figure 4]. We got a demonstration of how this works. It's the two of us on the lower level, and then right above us, you might see some shoes; there are two people above us there. That's the inside of the Orion mock-up.

The next step, in 2022, will be the launch of the first Gateway element. The Gateway is a platform that will have an elliptical orbit around the Moon. It is not a space station; it is smaller than the space station. But it will be a docking point for the Orion. Once there is a Moon lander, it will have an ascent module—a propulsion system—so the astronauts don't get stranded on the Moon. The ascent module will have a small rocket that takes them up to an orbiter, or to the Gateway, from any position on the Moon.

We experienced a virtual reality demonstration of the Gateway project, by putting on goggles that put you directly in the prototype of the Gateway—so that you

FIGURE 2



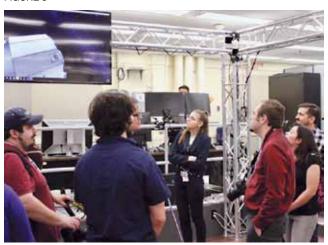
FIGURE 3



FIGURE 4



FIGURE 5



can see what's going on inside of it.

The technologies and the advancements that we have right now, that allow us to look at what is going on and have it demonstrated to you, are quite incredible. Visitors, ordinary people, can get right inside of these projects and see exactly how the Gateway will work. It's pretty fascinating.

On the screen is a simulation of a lander [Figure 5] that I had a chance to get into and do a test docking. It shows you how the spacecraft will dock, how it will land. These are some of the projects they have going on at NASA.

The Vision of LaRouche and Ehricke

Here you see, "The Development of Cislunar Space" [Figure 6], which illustration was created by Megan Beets and the LaRouche science team. We've used this to show the development of cislunar space as we start to send up commercial flights into lunar orbit; taking payloads, as we put up satellite systems; as we put the Gateway around the Moon and start to develop more technologies. This is what we're heading towards; this is what it's going to look like. This was the vision of Mr. LaRouche, of Krafft Ehricke, the great space pioneer. This is a schematic of what we should be doing in space.

Finally, the Gateway itself, just to finish the timeline here. The first elements of the Gateway—the





power and propulsion elements—will be launched by a private rocket in December 2022. This is the timeline; it might move up, but it's going to run on solar electric power.

Finally, in 2023, prior to landing astronauts on the Moon by 2024, NASA is going to put up "mobility platforms"—science and exploration rovers that NASA is working on with commercial partners and industry. These rovers will be going to the location on the Moon that we're going to focus on, that the President has commissioned, and that was just announced by Vice President Pence at the National Space Council—the South Pole of the Moon.

We already know that there is water there, volatiles

on the Moon that would help us to have longduration sustainability on the Moon; water for oxygen, for drinking, for food sources, and so forth that we could use to develop on the Moon. As Administrator Bridenstine said, the exciting thing that was announced by the Trump administration is that when we get back to the Moon in 2024, we're going to be sending our first woman astronaut to the Moon, and our next man to the Moon. So, that's very exciting, and as I said, this is for long-term duration and stay.

We have a very optimistic vision in front of us right now.

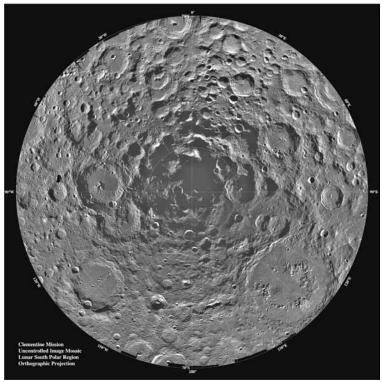
Ogden: You mentioned that this is really the fruit of what Lyndon LaRouche worked for, for 30 years or more: scientific progress, progress for mankind.

A Return of Optimism for Progress

Bruce Director: As Kesha was talking, what struck me was that it's been 47 years since man has been on the Moon. No one under the age of 55 or so—the vast majority of the world's population—has a living memory of the Moon being the province of mankind, other than an

object we observe from a distance. Think about when that Moon walk took place—1972. That was right after the collapse of the Bretton Woods system where free trade money came into existence, but also all the crazy ideas that are plaguing us today—environmentalism, zero-growth, population reduction, the notion of man as an unnatural intervener in the environment. We have had generations now of people who really have not lived with the kind of optimism and progress that was really unleashed by the Kennedy mission to put a man on the Moon.

This optimism was not limited to the United States. We're going to be celebrating in just a few months the anniversary of the first manned landing on the Moon in July 1969—the most-watched and listened-to event in world history. It wasn't just in the United States that people paid attention to it, but in every little village and town, even the remotest locations in parts of the world which were completely underdeveloped at that time, people gathered around their radios and televisions to follow the coverage of a man landing on the Moon. This was a global event; it was an achievement for all mankind.



NASA/JPL-Caltech

The existence of significant amounts of water at the lunar South Pole was a discovery crucial for establishing a permanent presence. Shown here is the South Pole as imaged by the Clementine Mission in 1994.

We've had some reprieve from the pessimism in the recent period with the initiatives of China and its success with the Chang'e mission Moon landing. Also, the continuing collaboration between the United States and Russia in space, but also the entry of other countries.

Water on the Moon is Crucial

Just to put a point on that, why are we going to the South Pole of the Moon? Because the South Pole is where there's water. Until 2007 or so, it was believed that there was no water on the Moon, that the Moon was bone dry. How did we find water on the Moon?

Evidence of water was first discovered by NASA's Lunar Prospector in 1999, but Indian scientists, who sent up the Chandrayaan-1 probe in 2008—it exposed sub-surface soil at the lunar South Pole—confirmed it. Then in 2009, NASA's Lunar Crater Observation and Sensing Satellite (LCROSS), discovered that water was not scarce at the South Pole, amounting to about one percent of the regolith! So that changed the whole conception of what we could do there. This is an international effort, and I was very happy to see that in

Trump's statement, he mentioned international cooperation.

Going back to the 1960s and 1970s, when the commitment to space exploration and lunar development was being dumped by President Jimmy Carter and the pessimism was sneaking in, LaRouche realized that that had to be reversed. The strategic situation at that time was far different than it is today, being dominated by the Cold War between the United States and the Soviet Union, which was being manipulated by the British Empire around the idea of Mutually Assured Destruction.

The way to keep world peace, it was thought, was to make sure that between the United States and the Soviet Union, each side could annihilate the other. That gave the British the opportunity to launch all kinds of regional wars and so forth. That, I think, also contributed a lot to the pessimism. Especially in my generation, we grew up with the idea that a nuclear war within an hour's time could annihilate all of civilization. It doesn't exactly engender a belief that you should have a big commitment to the future.

LaRouche addressed that, and he addressed it in the way that was quite unique at the time. Instead of trying to rail against what was bad, he proposed what was good. It eventually came into this idea of the Strategic Defense Initiative, which was to put the scientific capability of the United States, and ultimately in collaboration with our adversary at the time, the Soviet Union, to develop new defenses based on new physical principles which would make nuclear war obsolete. This was adopted by President Reagan in 1983, and in the ensuing period, LaRouche put out many proposals, one of which was a 1984 memorandum for cooperation between the United States and the Soviet Union based on mutual cooperation in the development of space.

LaRouche's Ideas on Space Now in Play

Ogden: Let's look at Mr. LaRouche's 1984 "<u>Draft Memorandum of Agreement</u> Between the U.S. and the USSR."

In Article 1, General Conditions for Peace, he states:

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.

The most crucial feature of present implementation of such a policy of durable peace, is a profound change in the monetary, economic, and political relations between the dominant powers and those relatively subordinated nations often classed as 'developing nations.' Unless the inequities lingering in the aftermath of modern colonialism are progressively remedied, there can be no durable peace on this planet.

Insofar as the United States and Soviet Union [or Russia, today] acknowledge the progress of the productive powers of labor throughout the planet to be in the vital strategic interests of each and both, the two powers are bound to that degree and in that way by a common interest. This is the kernel of the political and economic policies of practice indispensable to the fostering of durable peace between those two powers.

Concluding Article 6, he says explicitly that this has to be done with space exploration:

To lend force to this policy, the powers agree to establish new institutions of cooperation between themselves and other nations in development of these new areas of scientific breakthrough for application of exploration of space.

To this purpose, the powers agree to establish at the earliest possible time, institutions for cooperation in scientific exploration of space, and to also co-sponsor treaty agreements protecting national and multinational programs for the colonization of the Moon and Mars.

At some early time, the powers shall enter into deliberations, selecting dates for initial manned colonization of the Moon and Mars, and the establishment of international space stations on the Moon and in the orbits of Moon and Mars; stations to be maintained by and in the common interest and use of space parties of all nations.

The powers jointly agree upon the adoption of two tasks as the common interests 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 and all nations of this planet during

a period of not more than 50 years; and (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 general point of reference for erosion of the potential political and economic causes of warfare between the powers.

Solutions Exist Only at a **Higher Level**

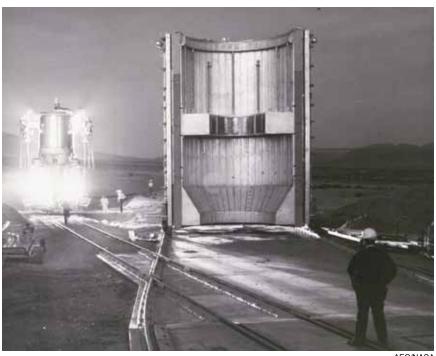
Director: That's quite beautiful. You can see that LaRouche, in true statesman-like fashion, proposed a solution to what at that time was an

existential crisis for mankind. He didn't try and address it within the parameters that were being set by the cause and the perpetrators of that existential crisis, which was the imperial system associated with the British Empire. He proposed to get out of that completely by establishing a basis for cooperation among the two leading nuclear powers at that time for a new development on a much higher level.

In a sense, it's typical of the greatest ways to approach policy of the American System. Think back to Alexander Hamilton. In the early days of the republic, the nation was confronted with major crises. Each solution he proposed was not a solution to any particular crisis, but the solution was found in establishing a general principle that would make such crises impossible, or nonexistent. That was the same approach that Lincoln took, and Franklin Roosevelt in the Depression and the war period.

That's what LaRouche was doing in his Memo. He was, of course, very active at the time, not just in the United States, but also in Europe, Japan, India, throughout the world. Organizing scientific leaders, military leaders, industrial leaders behind this idea.

A year later, in August 1985, he proposed a new program called, "A Private Initiative for Moon-Mars Development," that was just reprinted in EIR. I



AEC/NASA

The NERVA-XE, the first ground experimental nuclear thermal rocket engine undergoing testing in 1967.

strongly recommend that people read it in conjunction with his 1984 Memorandum, because he lays out exactly how this can be done, which includes, most importantly, a mobilization of private industry in the United States for development of space and the relevant technologies.

This is very important right now in terms of the current proposal by President Trump. If you set a mission and a deadline, as Trump has done, by cutting the timeline for putting a man on the Moon in half from ten years to five, at this point, it up-ends all the usual bureaucratic and procedural impediments to getting something done.

We have a wealth of capability, not just in the United States, but also in other countries—especially Russia and China, but also India and Japan and other countries which have developed advanced technologies, to research and develop and create new capabilities—new materials, new types of propulsion systems; most emphatically a fusion propulsion system, on which there is already research being done in the United States and other countries; nuclear-powered rockets, other types of technologies in terms of miniaturization technologies and so forth which just create the ability to do today things which would have seemed impossible.

Go to the Air and Space Museum here in Washing-



The Lunar Module Eagle on the Moon in July 1969 as part of the Apollo 11 mission.

ton, or in Houston, and look at what our astronauts went to the Moon in. The capsules they went to the Moon in look like a bunch of tin cans held together by rivets. There's more computing power in your cell phone today than was available to all of NASA during the entire Apollo project. We sent men to the Moon using slide rules. Now that's a testament to creativity.

Ogden: They were up there navigating with sextants because their navigation systems went out.

Director: I know! That's a testament to their creativity, but that's not to say that we should not use advanced technologies right now. Although, it's probably a good idea to be trained in the use of the sextant in case you need it.

Mobilize the American People!

So, we're really on the cusp right now. If we have a mission orientation, we can break through all these impediments. And you can see this just in the last week or so. Since Trump's announcement, NASA Administrator James Bridenstine held a town meeting for the NASA employees, and tried to cut through the justifiable pessimism that may exist. Referring to the famous Peanuts cartoon, Lucy has pulled the football away from them too many times; and they want to make sure we're really going to do this. He said, yeah, we're really

going to do it, because President Trump wants to do it.

It helps us that President Trump is pretty passionate about this; but we have to mobilize America around this. That's really our job here at LaRouche PAC. We're getting reports, by talking about this program, that there's a huge amount of support for it. People are really hungry to have a mission like this. And comparing it to John F. Kennedy was an important reference by President Trump.

You mentioned the supportive statement by the Director General of Roscosmos, the Russian NASA, Rogozin. We have already a potential for collaboration with China, which would require getting rid of this ridiculous Wolf Amendment, which prohibits NASA from working directly with the Chinese. Already there are some back-channel and back-door ways that collaboration is

going on, but the outright prohibition should just be swept aside.

With a mission like this, as LaRouche said back in the 1980s, you can reorganize world affairs. It's only with a mission like this that you can do it. So, we should stop trying to tinker here and tinker there on the lower level of problems that get in the way, and really just put the whole country behind this concept.

Cooperation with Competition

The other thing I'd say is that there's a certain amount of competition at play here. Pence says America is going to be first in space. Well, the Russians want to be first in space, and the Chinese want to be first in space, and the Indians want to be first in space. It's not bad that everybody wants to be first in space; you can get a little bit of competition going here. It provides the basis for collaboration, because in case you hadn't noticed, space is pretty big. There's really enough room for everybody and I don't see any borders on any map you want to draw—a two-dimensional or three-dimensional map of space. I don't see any borders, and you can't extend the air space of a terrestrial country beyond the atmosphere.

So, there's plenty of room out there, and plenty of need, and I really think this is the basis on which we could knit together a completely new set of relations among nations. **Ogden:** That 1985 article by LaRouche, "Private Initiative for Colonizing the Moon and Mars," was followed by a broader <u>paper</u> that he wrote for *Fusion* magazine in 1986, "The Scientific Technology Needed to Colonize Mars." He begins the 1985 article by saying:

It can be safely estimated, that during the coming fifty years or longer, all scientific and technological progress will be shaped primarily by the interrelationship among three presently well-defined frontiers of scientific research: (1) Controlled thermonuclear fusion, (2) coherently directed electromagnetic impulses, and (3) optical biophysics. Advances in other classifications of technological progress will be indispensable auxiliaries to the application of the three primary classes of developments, but the overall technological progress of mankind will be directed and bounded by the advances effected in these three cited, primary classifications.

The implications of these primary technologies are shown most immediately, most clearly, and most exhaustively, by examining the interdependent role all three perform together in interplanetary colonization.

He said that's what we should now define as "science." When we say the word "science," we should mean Moon-Mars interplanetary colonization. He said that maybe later we can get to terra-forming of Saturn's largest moon, Titan. In this paper—in 1985—LaRouche set 2010 as a goal for colonization of Mars. We missed that goal, but later in the article he says, "Today, we can foresee the clear possibility that colonies totaling millions of persons will exist on Mars by the middle of the coming century."

Director: Let me just point out two things. One is that LaRouche was optimistic there in terms of time-frame, and the official NASA timeline for programs back in the late 1960s, during the Apollo program, was even more optimistic than that. Yet it's 47 years since we've been on the Moon; we're really way behind where we could have been.

The other thing I'll point out here, which is I think a perfectly good irony, is that LaRouche made this a major part of his Presidential campaigns, both in 1984 and in 1988, most famously making a half-hour nation-

wide television address called "The Woman on Mars." LaRouche's enemies were quite freaked out about that. The population really responded to it well—especially young people. But he was ridiculed, and slanders and attacks ensued on LaRouche and the legal cases. One of the big slanders was, "LaRouche, he's against the Queen of England, and he wants to colonize Mars." He was ridiculed in the mass media for saying this. Now, you can see the real small-mindedness of the people who attacked LaRouche on these grounds. Today, Mars colonization is what any competent nation or person would want to do.

Stories Our Grandchildren Will Tell Us

Rogers: I was just thinking about what NASA Administrator Bridenstine said to the NASA employees. It was the attitude that "failure is not an option"; that not getting this done is not an option. This is going to be a story that we're going to tell to our children and grand-children. And with all of the questions about budgets and so forth, and achieving this goal when we've seen so many projects that have been put on hold and have been stopped. He was very optimistic about the fact that we have a President who is determined to provide leadership and a vision.

He said that we have to put everything we have into going full-speed ahead with this objective, to meet this objective and make it a reality. That's the 2024 return to the Moon with American astronauts; our first female and our next male astronauts on the Moon. We have to make this commitment. Bridenstine said that we don't know where the world will be in 2024; but what we do know is that we have an objective and we have a mission to meet. The reality is that this is the direction that the world should be going in, in 2024; and you just think about it, as he says, we're going to have an amazing story to tell our children and our grandchildren. They will have an amazing future to look forward to.

Director: If we do this, not only will we have a lot of stories to tell our grandchildren, but our grandchildren will have a lot of stories to tell us!

Ogden: Absolutely! So, thank you so much, Kesha and Bruce.

Rogers: Thank you! I'm just an ordinary citizen doing this. More citizens have to take up this fight and this mission.