

LaRouche: Dispel the Nightmares, Develop Helium 3 Russia Pursues Diplomacy But Prepares for War Obama Violates Constitution Again—with War in Iraq

China's Lunar Program: Key to Mankind's Survival



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From the Editors

 \mathbf{R} eal change on this planet, for the better, is underway, as you will learn in this issue. Led by China and its allies Russia and India, the campaign for thermonuclear fusion power development, combined with a lunar program to mine helium-3, shifts the entire standard of value for the world economy. The so-called values of the dying trans-Atlantic system, represented by President Obama, the vulture funds, Wall Street and the City of London, are exposed as fraud and bluff, as the prospect of real scientific progress for all mankind comes into view.

Lyndon LaRouche returned to the podium at the Aug. 8 La-RouchePAC webcast to underscore this point (Feature). Yes, the world is dangerous—but the British Empire can be defeated if mankind relies on the "power of the Moon," the real potential for helium-3-based fusion power, as the new platform of energy-flux-density for the world economy.

In a presentation with overtones of FDR's "The only thing we have to fear is fear itself," LaRouche introduced the subject which will determine the future, the Chinese lunar program, and its drive to mine helium-3. The article by Cody Jones, and transcript of Ben Deniston webcast presentation provide you with a substantial review of those crucial subjects.

Our news sections deal primarily with those nightmarish threats we have to get out of the way. In International, we update the Empire's war drive against Russia—a drive that it can't win, but could destroy us all. Note carefully that the Russians keep offering a way out, a pathway based on that alliance of BRICS nations, the same alliance of China, Russia, and India that is leading the helium-3/Moon drive. Helga Zepp-LaRouche addresses the problem specifically from the German perspective, telling her fellow citizens to get out of NATO now.

In *Economics*, we turn to the African situation, which, as shown in Obama's recent Africa summit, again demonstrates the bankruptcy of the trans-Atlantic system, in the face of the BRICS/fusion power alternative now being put on the table.

In *National*, we turn to the Obama problem directly, in the context of his latest unconstitutional war, and the lessons to be learned from the drive to impeach Richard Nixon, 40 years ago.

We urge you to take advantage of the relative brevity of this issue, to study intensively the crucial *change* in the world strategic situation on which the future of all of us depends: our Feature on the power of helium-3.

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CNSA

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LAROUCHE AT WEBCAST

Dispel the Nightmares—Join China in Developing the Moon

Aug. 9—Following a broad exposition by *EIR*'s Dennis Small of the latest strategic developments, in which the British Empire's drive for war is rapidly leading toward thermonuclear confrontation, Lyndon LaRouche made the following remarks, at the Aug. 8 LaRouchePAC Webcast:

Well, now you've heard all the nightmares, let me tell you they don't exist; they're only nightmares. They have no reality to them whatsoever.

See, the problem here is, people are so sucked into believing what they're told, that they don't know what is going on in their own minds. What you're faced with, in effect, is a doom of the United States in its present economic form. You're threatened with threats to the existence of the European economies, again similarly.

Now, why do people believe these threats? Why do they believe these silly stories? Because they don't know any better. Because they don't know how the Solar System works. They're talking about itty-bitty things in itty-bitty corners in itty-bitty this and that. They're saying *this* is the system. It is not! Obama's a fool; he's the worst of all possible fools. He's doomed. He's not going to win anything; don't believe that.

Now, how do you understand all this? Well, the first thing is, you've got to know where you're living. You're living in the Solar System. The Solar System of relevance is what? It's the Moon; it's the Moon! The power is that of the Moon. The economic power of the planet Earth is of the Moon.

So what are you worried about? Yes, there are tactical questions you have to consider, but when you get worried that this crap that you've been dosed with is somehow reality that you have to fear, it's the fear itself that destroys you. Because you believe in that fear.

What's the basis for the existence of mankind as a human species within the Solar System? What is the basis for the existence of the Moon? What is the importance of the Moon?

Well, the Moon is the source of all the original powers which define the viability of the Solar System. It depends upon the Moon, and intelligent people depend upon understanding that. So, this piece of idiocy of this belief that this kind of thing [the British war drive] is going to work—it works only if you're stupid enough to believe in it.

What do you think is the most powerful force within the Solar System? It's the Moon, buddy! It's the power which reposes in the Moon; that is the thing.

China Defines the Challenge

For example, what mankind is going to have to do is simply go out there and do what the Chinese are doing. Now China is doing the job. We in the United States are *not* doing the job, but we are people who understand what China is doing. We understand what India is threatening to do; we understand other things of that nature. And therefore we say: All right, we are not the number one people. We in the United States did not make the discovery of the solution to the Moon problem; we didn't do

that. But, what happened is, our friends, our neighbors, did. They have defined what the challenge of the Moon is.

For example, you want power. You want electric power; you want all kinds of power. Where are you going to get it? Well, you're going to go out to the Moon. You're going to tie yourself to the fact that our Moon is a factor which we can rely upon if we act intelligently. If we act upon those factors, those factors will work for mankind.

Now, we are not the best at it.... China is the leader of the world. Why? Because they took on the question of the Moon and how we can use the Moon. What are we dealing with? We're dealing with all these specific powers; we're look-

ing at new kinds of power, which were never used before.

We know that we can dump this whole piece of crap, simply by pulling our heads together, and doing what we know we should do. So, all these fears—forget them! It is the fears themselves that are the threat! It is the belief in the fears, that is the threat.

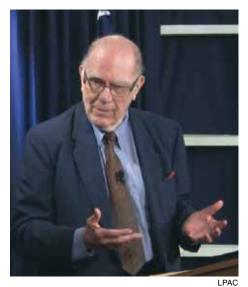
Obama? You think Obama impresses me at all? Do you think Obama ever impressed me with anything? What was I calling him from the beginning from the first time I saw this piece of crap running loose in our country?

Why are we intimidated by Obama? Yes, well, a lot of Americans are intimidated by Obama. Why? Because they're dumb. They're dumb Americans! Well, we don't curse them as "dumb Americans," we just try to put it the other way around: We say, "Well, you don't *have* to be a dumb American. All you have to do is learn some high-technology processes, and you, too, can be a genius—maybe, maybe." But, that's where we are.

So, the basic problem, which we face right now at this point, is that.

Forget Your Fears

But, the point is, the idiots, the street idiot, the ignorant person, who never learned anything, who never learned any lessons, they all say, you have to fear this; you have to fear that. Yes, we can get shot. Many people like me have gotten shot before. But, that's not the



"The issue," LaRouche said, "is to understand the fact that the power to develop mankind's power on Earth, depends upon mankind's devotion and power to utilize the power immediately above, in the Moon."

point. The point is, the power to deal with the challenge of the Solar System, especially the Moon system as such, lies within the means of mankind.

China has been a leader, already, in its first venture, in defining the great power of the Solar System. We can tap that, and we must.

The problem here is the farce of believing in what people are told, because they say you have to fear. And I say you don't have to fear. Yes, you can get killed, but getting killed is not a good reason for fearing. The point is, if you can not stand up and reject frauds like this, if you give in to those frauds, you are your own worst enemy!

And those of us standing here, do not believe in that. We know

that the greatest power in the Solar System, accessible to us, now, the greatest power available to mankind in the Solar System, now, is what? It's the Moon. It's the helium-3 on the Moon. That's the greatest power.

Now, what if we should decide to take this great power, which is there, the Moon power—it's more powerful than anything on Earth. The Moon is more powerful than anything on Earth! And, China's working with the Moon! What are *these* idiots working with? What's their story?

When I think about my old friends in Russia—yes, they are my old friends in Russia—I don't always agree with them; I didn't always agree with them—but when I look at this pack of fools in Western Europe, what I see coming out in Western Europe, I say these guys are geniuses, compared to that bunch of fools. The problem with our European friends is the fact that they're fools. They want to believe in submission to the British Empire. You know, I hate the British Empire. I despise the British Empire. It's one of my favorite pastimes.

That's what the issue is! The issue is to understand the fact that the power to develop mankind's power on Earth, depends upon mankind's devotion and power to utilize the power immediately above, in the Moon. This is the answer.

So, don't worry about all these foolish people. They are dangerous because *you* believe in them. If you didn't believe in them, they wouldn't be dangerous.

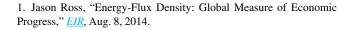
China To Industrialize Moon; Realize Promise of Thermonuclear Fusion

by Creighton Cody Jones

While the economy of the United States stands at the verge of collapse, hobbling along under the dead weight of the London-Wall Street money system, China is on a trajectory upward, propelled by its orientation toward an "American System"style, science-driver economic policy, and a defense of national sovereignty. China's dedication to the future development of mankind is exemplified by its commitment to elevate and upgrade its space program, to a mission of exploring, developing, and mining the Moon, with a special emphasis placed upon the ultimate use of the chemical isotope helium-3, which is found in relative abundance in the Moon's regolith (lunar soil), as a fuel for thermonuclear fusion-powered energy production—the next frontier in technology revolutions.

By "American System," we mean the explicitly anti-free-trade economic policy that was fully developed by our first Secretary of the Treasury Alexander Hamilton, and has been employed by such great Presidents as Abraham Lincoln and Franklin Roosevelt. Under the American System, real wealth is measured not in terms of monetary values, but in terms of increased standards of living and quality of life, as this is expressed through the increasing of rates of increase of the productive powers of labor (i.e., increased power to transform nature), driven by the use of higher energy-flux density technologies.¹

This is achieved through a government-directed, long-term credit policy, aimed at the promotion of front-end technology-driven, large-scale infrastructure





China is leading the way into deep space, as can be seen in its manned space and lunar probe missions. Premier Li Keqiang described their purpose as "to explore the origin of the universe and mystery of human life; and second, to make peaceful use of outer space...." Here, an artist's concept of mining (helium-3) on the lunar surface.

projects, and science-driver national missions. In the history of the U.S., this policy has been typified by such projects as the Transcontinental Railroad, the Tennessee Valley Authority and Rural Electrification Project, the Manhattan Project, and the Apollo missions, to name a few. For China today, this means, at the science-driver level, a unified policy of vastly expanding its space program, while simultaneously progressing upward with the development of fusion power and related technologies.

This upshift toward the achievement of fusion power and industrial development of the Moon by China comes in the context of having already completed, in the last two decades, the largest dam in the world, the Three Gorges Dam, and having laid the greatest amount of magnetically levitated (maglev) high-speed rail of any nation. In addition, China has built hundreds of new

cities in the past 30 years, and has committed itself to building hundreds more by decade's end.

China currently has 28 nuclear reactors under construction, and plans to more than triple its nuclear capacity by 2020; it has begun construction of the world's longest quantum-optics based communication line, from Beijing to Shanghai, to give further credence to its place as a world technology leader. Furthermore, it announced, in May 2011, a policy to graduate 2,000 new fusion scientists and engineers by decade's end.

On an international level, China is playing a leading role in the motion of such multinational alliances as the BRICS, which at its recent summit (July 14-16, 2014) in Fortaleza, Brazil, announced the formation of a \$100 billion "New Development Bank" (NDB), to be headquartered in China, for the purpose of financing infrastructure and development projects across the globe. The NDB is de facto a step toward supplanting the increasingly discredited IMF and World Bank on the international stage. The BRICS Summit has also provided the backdrop for a number of bilateral agreements among the BRICS member nations (Brazil, Russia, India, China, and South Africa), as well as participant Argentina, for the building of nuclear power facilities and other necessary infrastructure projects on multiple continents, with China playing a leading role. All of this provides the foundation for the development of a 21st-Century deep-space and fusion power economic platform.

While it is true that at the current moment, hundreds of millions of people in China remain in conditions of poverty, and much of the nation still suffers from severe underdevelopment, the intention and the direction are clear: China sees its future in the stars.

The question is: Will America join them?

China's Moon Program and Helium-3

Civilizational progress must be defined by a scientifically lawful vision for the future, and at present, the visionary frontiers for a future-driven society are in the domains of 1) the mastery of processes at the level of the increasingly small, the sub-atomic—namely thermonuclear fusion, and 2) expanded power in the increasingly large, the cosmic level—that is the exploration and development of processes in deep space. Both domains, the subatomic and the cosmic, are unified in that they require mankind's increased control and utili-

zation of principles of much higher energy-flux density than those in use today.

Currently, China is taking a lead role in demonstrating a commitment to this kind of future orientation in space and energy, as a single, unified perspective. This is evidenced by the fact that, for example, the government has recently appointed a sole individual, Xu Dazhe, as, simultaneously, the director of three agencies: the China National Space Administration (CNSA), the China Atomic Energy Authority, and the State Administration for Science, Technology and Industry for National Defense, thus ensuring a unification of intention and direction for the space program and nuclear science.

China's intentions for the future have been further elaborated in discussions among people close to the space-science community, particularly remarks made since China's recent successful completion of its first soft landing on the Moon, which took place on Dec. 14, 2013, with the Chang'e-3 space capsule, and the deployment of its Yutu Moon rover. Famed Apollo 17 astronaut and former U.S. Senator Harrison Schmitt, following the Chinese Moon landing, said, "China has made no secret of their interest in lunar Helium-3 fusion resources.... In fact, I would assume that this mission is both a geopolitical statement and a test of some hardware and software related to mining and processing of the lunar regolith." This is an area of knowledge that Schmitt knows well, having penned numerous papers and books on the prospect of lunar development and helium-3 mining, and having worked closely with the group at the University of Wisconsin which is developing helium-3 fusion technologies.

Reflecting the truth of Schmitt's assessment are the words of the "father of the Chinese lunar program," Ouyang Ziyuan, who began lobbying the Chinese government for a Moon program in the 1990s, and was finally rewarded in 2004 with the announcement of the China Lunar Exploration Project (CLEP), called the Chang'e Project, of which he became the first chief scientist. Ouyang said in a recent interview, "The Moon has huge reserves of metals such as iron," and that "helium-3, an isotope of the element helium, is an ideal fuel for nuclear fusion power, the next generation of nuclear power. It is estimated that reserves of helium-3 across Earth amount to just 15 tons, while 100 tons of helium-3 will be needed each year if nuclear fusion technology is applied to meet global energy demands. The Moon, on the other hand, has reserves estimated at between one and five million tons."

^{2.} In a similar direction, the newly elected President of India ran on a platform of building new high-tech cities throughout the country.



program," began lobbying the Chinese government for a Moon program in the 1990s, and was the first chief scientist of the Chang'e project. He said that, beyond the Earth, "we also need to know our brothers and sisters like the Moon, its origin and evolution and then from that we can know about our Earth." Above, the Change'e-3 rover on the Moon, December 2013.

In addition, Ouyang stated, in a BBC interview of Nov. 29, 2013, that "The Moon is full of resources mainly rare Earth elements, titanium, and uranium, which the Earth is really short of, and these resources can be used without limitation.... There are so many potential developments-it's beautiful-so we hope we can fully utilize the Moon to support sustainable development for humans and society."

Ouyang identified three motivations for going to the Moon: "First, to develop our technology, because lunar exploration requires many types of technology, including communications, computers, all kinds of IT skills and the use of different kinds of materials. Second, in terms of the science, besides Earth we also need to know our brothers and sisters like the Moon, its origin and evolution and then from that we can know about our Earth. Third, in terms of the talents, China needs its own intellectual team who can explore the whole lunar and solar system—that is also our main purpose."

These stated motivations underscore the recognition on the part of China of the role that science-driver programs play in expanding the technology and growth of the nation as a whole. This is something that was once better understood by government layers in the U.S., who would often quote the fact that the Apollo missions yielded a 10-to-1 return on investment, from technological spin-offs and increased production capabilities, as well as firmly establishing many high-

tech industrial firms.

Preparing for a **Manned Mission**

Rightfully declaring the Chang'e-3 mission a success, despite a glitch in the Moon rover Yutu's circuitry, China is currently putting forward a clear statement of the next steps in its Lunar Exploration Program.

Chinese scientists and

engineers are working on designs for a lunar base that will include "new energy development and living space expansion," according to a manager of the Chang'e-3 spacecraft, speaking at the Shanghai Science Communication Forum, as reported in *Peoples' Daily*. Zhang Yuhua affirmed that China's lunar sample return mission, Chang'e-5, is now scheduled for 2017, an acceleration of the original timetable, because of the success of the current mission. He stated that the interim launch of Chang'e-4 will not be a repeat of the current mission, but will incorporate some of the new technologies needed for the highly complex later sample return. Returning the planned five pounds of samples of lunar soil and rocks will allow a detailed analysis of the Moon's minerals, chemistry, and other characteristics, which is a necessary step to precede sending people there. Zhang described the activity of a lunar base as setting up agricultural and industrial production, producing medicines in the vacuum environment, and "energy reconnaissance."

Add to this, the long-term intentions of the lunar program as stated by Luan Enjie (a senior advisor to China's lunar program) who told state media that the ultimate aim was to use the Moon as a "springboard" for deep space exploration, which many experts acknowledge would require a base on the lunar surface.³

While it has not been made official by the government, it is clear to many that a manned landing on the Moon will one day appear on the horizon for the Chi-

^{3.} http://phys.org/news/2013-12-moon-pie-sky-china -experts.html

nese, as part of their continued expansion of manned space exploration. Recently, in an interview with *Science*, Chinese premier Li Keqiang spoke about the manned program, saying, "China's manned space and lunar probe missions have a twofold purpose: First, to explore the origin of the universe and mystery of human life; and second, to make peaceful use of outer space.... Peaceful use of outer space is conducive to China's development. China's manned space program has proceeded to the stage of building a space station, and will move forward step by step.... As human life is precious, we will start with robotic exploration before gradually expanding manned space exploration. Space is all too mysterious. We need to take risks, but not at the cost of human life when conditions are not yet right."

Additionally, there have been numerous articles in the Chinese and international press about the manned Moon mission. *People's Daily*, for example, quoted Zhang Yuhua, who said, "The manned lunar landing has not yet secured approval from the national level authorities, but the research and development work is going on." An article recently published by Australian space analyst Dr. Morris Jones cites well-reasoned evidence that China is planning an unmanned circumlunar flight for the near future, which is a necessary precursor mission for an eventual manned landing.

The reality of this potential is further commented on by a leading British space scientist, Prof. Richard Holdaway, of the government-funded laboratory RAL Space, who has extensive experience working with China. He believes that China could have astronauts on the lunar surface by 2025. "They started from a long way back, but now they're catching up fast—they want to monitor what's happening on the ground, they want to be part of the analysis of climate change and a much bigger program looking at the Moon for mining or as a staging post to other parts of the Solar System."

More recently, China has made a number of announcements which concern both near- and longer-term plans for the Moon. For example, China will conduct simulation tests on the return to Earth of the Chang'e-5 lunar probe at the end of this year.

The longer term goals are made clear by the report of the completion of a 105-day test of the "Lunar Palace

1" (Permanent Astrobase Life-support Artificial Closed Ecosystem), a facility created to test the requirements for a life-supporting Moon base.

As reported on us.news.cn on June 26, "The three 'Moon dwellers' drank recycled purified water, ate worms and food they grew themselves, conducted experiments, and chatted with their family on the internet in the enclosed capsule from February 3 to May 20." Chief designer and lead scientist, Liu Hong, commented, "Lunar Palace 1 is different from Biosphere 2, an Earth systems science research facility in the U.S.

"Biosphere 2 is a duplication of the living environment on Earth, which is a failure we did not want to repeat. The system we made was directed towards the needs of humans. We carefully chose what plants, animals, and micro-organisms would be best included in the ecosystem.

"'Many foreign experts think building a space base cannot be achieved in the near future, so they do not put many resources into research in this field,' says Liu, 'But the length of time needed to understand the complexity of an eco-system is why scientists should start experimenting now.' Liu says, 'it is necessary to build two mini Lunar Palace 1 systems—a monitoring station on the Moon and one on Earth—so the two sets of data can be compared.'"

Mars is also a destination that China has its eyes on, and it is deep into the development phase of a mission to return samples from the Red Planet, with plans to land a probe on Mars in 2020, and to return with samples in 2030. China's "Mars-Plus" plan was further elaborated by Ouyang Ziyuan, at the opening ceremony of the 22nd International Planetarium Society Conference held in Beijing on June 24, where he stated, "China's goal for space exploration is the Solar System." He added that future exploration in the Solar System will include the search for extraterrestrial life, the origin and evolution of the Solar System, solar eruptions, and other phenomena. Ouyang told *People's Daily* that another important goal of the Mars mission is to detect solar systems beyond Earth's reach, and to compare the origins of Earth-like planets with the formation of our Solar System. The most ambitious project of the Chinese space agency is that they hope to "recreate" a planet, based on information obtained through exploration. 7

^{4.} Jan. 8, 2014. http://english.peopledaily.com.cn/202936/8506408.html

http://www.spacedaily.com/reports/Chinas Fast Track To Circumlunar Mission 999.html

^{6.} http://www.bbc.com/news/25141597

^{7. &}quot;China To Search Mars for Aliens and 'Recreate Planet,'" *People's Daily* Online, June 26, 2014. http://english.peopledaily.com.cn/n/2014/0626/c98649-8747066.html

International Collaboration: China and Russia

In the wake of a June 2014 landmark deal signed between Russia and China for the export of \$400 billion in natural gas to China, there has been an intensification of collaboration between the two countries in numerous areas, including space science. As reported in Ria Novosti on June 30, 2014, at the First Russia-China Expo, Russian Deputy Prime Minister Dmitri Rogozin said that Russia is ready to work with China to explore the Moon and Mars. "If we talk about manned space flights and exploration of outer space, as well as joint exploration of the Solar System, primarily the Moon and Mars, we are ready to go forth with our Chinese friends, hand in hand," he said. Rogozin believes that Russia and China could work together to create spacecraft, "a joint base of radio components independent from anyone," as well as cooperate in cartography and communication.

The Russian Federal Space Agency (Roscosmos) and its Chinese counterparts also signed a memorandum of understanding "on cooperation in global navigation satellite systems." Rogozin said that the Russian navigation system GLONASS and the Chinese Beidou will complement each other.⁸ China is additionally moving forward on space collaboration with India and the European Space Agency as well. In fact, the Chinese Academy of Sciences (CAS) and the European Space Agency (ESA) are co-hosting a workshop for "planning for a joint scientific space mission this coming September in Denmark.⁹

Contrast with the U.S. Space Program

The image of China with a clear mission and order of operations for its space program contrasts sharply with the picture one finds in the United States, which has seen NASA, under austere budget constraints and whimsical shifts in mission orientation and established goals handed down by policymakers, groping to maintain its



The deepening of collaboration between Russia and China was recently given voice by Russian Deputy Prime Minister Dmitri Rogozin, who said, "If we talk about manned space flights and exploration of outer space, as well as joint exploration of the Solar System, primarily the Moon and Mars, we are ready to go forth with our Chinese friends, hand in hand," Here, Presidents Putin and Xi shake hands on a huge natural gas deal in May

role as the world leader in space. Moreover, current U.S. law bans collaboration between America and China on space exploration and related technology development.

At the same time, the budget for fusion research, the other side of the advanced technology coin, has not been funded up to necessary levels, and has been further slashed in recent proposals from the Obama White House, leaving the domestic program in an anemic state. This policy leaves the future of the U.S. program much in doubt, as the high-skilled work force continues to diminish in size, and the average age of skilled scientists and engineers continues to climb towards retirement age.

A brief sketch of the recent history of the fate of the U.S. space program, and parallel changes in the fusion energy policy, suffice to illustrate the sputtering trajectory of the United States' scientific and economic future.

As recently as 2005, NASA was operating with a comprehensive roadmap toward developing the technology and capability to return a four-man crew to the surface of the Moon, targeting the icy south pole as an optimal destination. The Constellation program was to replace the Shuttle-centered program, slated to be mothballed in 2010. The shutdown of the Shuttle program was to create the "savings" to fund Constellation

^{8.} The U.S. has refused to allow Russia to set up GLONASS ground stations here, even though we have a few in Russia, which is one reason they are anxious to do this with the Chinese.

^{9.} http://sci.esa.int/cosmic-vision/54130-2nd-workshop-on-planning-for-a-joint-scientific-space-mission/



MASA/MESC

As China surges ahead in space science, the U.S., once the premier spacefaring nation, has seen its space program whittled away to almost nothing. NASA's Constellation program, for example, was doomed by austerity, and lack of funds to maintain even key aspects at life-support levels. Shown: the Ares 1 Upper State Hydrogen Dome Weld (July 2009), part of the Constellation program.

without increasing NASA's overall budget. Though it was known that this would create a time-gap where no American vehicle would be capable of getting astronauts and supplies to the International Space Station, it was accepted in the context of the U.S. embracing a greater mission.

A selection of typical news quotes from that 2005 period gives an indication of what official U.S. policy was, and also reflects where the Chinese space policy discussed above has its origin.

"NASA briefed senior White House officials Wednesday on its plan to spend \$100 billion and the next 12 years building the spacecraft and rockets it needs to put humans back on the Moon by 2018" (September 2005).

"NASA's plan envisions being able to land four-person human crews anywhere on the Moon's surface and to eventually use the system to transport crew members to and from a lunar outpost that it would consider building on the lunar south pole, according to the charts, be-

cause of the region's elevated quantities of hydrogen and possibly water ice."11

"One of NASA's reasons for going back to the Moon is to demonstrate that astronauts can essentially 'live off the land' by using lunar resources to produce potable water, fuel and other valuable commodities. Such capabilities are considered eximportant tremely expeditions human Mars which, because of the distances involved, would be much longer missions entailing a minimum of 500 days spent on the planet's surface."12

Whatever one may think of the specifics of the Constellation program plan,¹³ it was nonetheless an ambitious and robust

strategy relative to the period that followed the shutdown of the Apollo Program. Yet, even at that point, we could have been engaged in a crash program to develop nuclear and thermonuclear propulsion systems, and expanding an otherwise shrinking economy with a science-driver program based on such technologies.

The case of Constellation exemplifies the folly and peril of trying to realize a decades-long mission within the constraints of annual budgets, and without the political leadership to make it happen.

With cost overruns, and in an environment of austerity, NASA was lacking the funds needed to meet its established deadlines, and to maintain even key aspects of Constellation at life-support levels.

As it stood, the Bush Administration had never provided adequate funding for Constellation, as has been

^{10.} See more at: http://www.space.com/1553-nasa-unveil-plans-send-d-astronauts-moon-2018.html#sthash.ZTc50pqd.dpuf

^{11.} See more at: http://www.spacenews.com/article/nasas-moon-and-mars-plan-echoes-apollo-approach

^{12.} See more at: http://www.space.com/1553-nasa-unveil-plans-send-4-astronauts-moon-2018.html#sthash. ZTc50pqd.dpuf

^{13.} Which can be found here: http://www.nasa.gov/mission_pages/constellation/main/index2.html

the case with all NASA programs, from Apollo to the Shuttle, in which the ultimate cost of achieving something that had never been done before, could not be determined. In 2009, the Obama White House set up the Augustine Commission to review the status of NASA's human space-flight program. The conclusion was that, to keep Constellation on track would require an additional \$3 billion per year. The response from the Obama White House was to shut it down. As a result, all that remained was some blustering about going to Mars, and a compromise "heavy lift" rocket, the Space Launch System (SLS), with no clear mission in site. This is not to take away from the value of the upcoming missions of Orion, but relative to where we were 40 years ago, one could hardly say that it represents a revolutionary leap forward.14

The Orion capsule is set to make its first unmanned test flight, atop a Delta IV rocket, sometime after December, with the intention to "evaluate launch and high speed reentry systems such as avionics, attitude control, parachutes and the heat shield," according to NASA. So, more than 40 years after we last landed on the Moon, the U.S. is again embarking on a deep-space mission, though a clear long-term pathway has not been established. Orion is ultimately intended to be launched atop the SLS, with phase I to be tested in 2017, with a 70-ton payload capacity, to be followed some time later by the phase II SLS with a 130-ton capacity, which is touted as being the most powerful rocket ever developed, finally surpassing the Apollo Saturn V.

Although the fact is that the Orion and SLS combination has advanced capabilities, above the Saturn V rocket and the Apollo Command Module, and the fact that it has a deep-space capability that the Space Shuttle was never designed to achieve, nearly 50 years beyond our first deep-space mission, nearly two generations, we are still relying on chemical rocket technology. The problem is better understood when viewed in the context of NASA's nuclear rocket program (NERVA), which was canceled in 1973, despite its meeting all of its development goals up to that point. Also, laboratories in the U.S. have carried out over 40 years of research and design for the development of fusion-powered rockets, with near-zero government funding and promotion. This failure to adequately support next-generation technology has thus ensured that no principled advance has been made in the area of deep-space propulsion.¹⁵

Some sense of where the U.S. space program currently stands can be gleaned from a recently released report from the National Research Council (NRC), 16 which was the result of a congressionally mandated 18-month study of the future of human spaceflight. The report states that to continue with the currently budgeted path "is to invite failure, disillusionment, and the loss of the longstanding international perception that human spaceflight is something the United States does best." Said Mitch Daniels, the former Indiana governor and co-chair of the committee, "Absent a very fundamental change in the nation's way of doing business, it is not realistic to believe that we can achieve the consensus goal of reaching Mars."

The NRC report presented three potential pathways to Mars, with the two most favorable involving a return to the Moon. It states that a lunar landing and habitat development would be instrumental in developing technologies to be later used in a Mars mission. In contrast, the report saw the third path, which includes the currently ill-defined asteroid capture and return mission, as least favorable. The report stated that the asteroid capture mission involved the development of a large number of "dead end" technologies that have no application for a future Mars landing. The committee also raised safety concerns with the current pathway, stating that it "cannot provide the flight frequency required to maintain competence and safety."

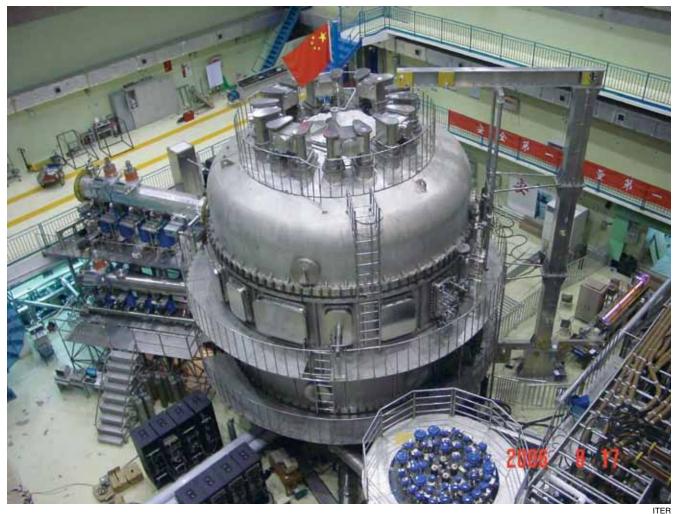
China's Fusion Program

At the top of China's long-view intention is the development of thermonuclear fusion power. Not only is China a contributor to the ITER (International Tokamak Experimental Reactor) project, but it is pushing ahead with its own tokamak reactor program. In fact, the Chinese have, with their EAST (Experimental Advanced Superconducting Tokamak) reactor, a higher-level tokamak than any found in the U.S. As it is, the EAST utilizes superconductive magnets (which no reactor in the United

^{14.} http://www.nasa.gov/content/five-things-we-ll-learn-from-orions-first-flight-test/index. html#.U61_l_ldXCc

^{15.} Ion thruster technologies, which do tap into atomic properties, are, however, limited in application to low-power requirement missions.

^{16.} http://www.washingtonpost.com/national/health-science/nrc-human-spaceflight-report-says-nasa-strategy-cant-get-humans-to-mars/2014/06/04/e6e6060c-ebd6-11e3-9f5c-9075d5508f0a_story.html



China's Eperimental Advanced Superconducting Tokamak (EAST), above, was the first fully superconducting tokamak in the world, and is today, a higher-level tokamak than any found in the U.S.

States currently does), which gives it a superior capability in magnetic confinement strength.

Additionally, on May 19, Chinese scientists at the Institute of Plasma Physics completed a 20-month upgrade to their superconducting EAST tokamak, and will soon begin their 2014 experiment. The goal of this year's experiments will be to extend the duration of fusion production to more than 400 seconds, working toward steady-state operation of a fusion machine.

China is also well on its way to developing an inertial confinement fusion (ICF) facility comparable to the laser fusion facility at the National Ignition Facility (NIF) at Livermore, Calif. Named Divine Light 3 (SG-III), this facility is designed to utilize 48 lasers to compress an isotope fuel pellet to ignite fusion reactions. Although the facility is currently only in the

target design experimental phase, the next phase, Divine Light 4, is scheduled to be running by 2020, with the intention of going for ignition of actual fuel.

In conjunction with this, in the process of building up its laser arsenal, China is developing a top-of-theline, automated robotic machining capability for the construction of such lasers, which will give them a mass laser production capability, which can be applied to other sectors of the productive economy.

Meanwhile, in the U.S., there continues to be a counter-productive penny-pinching approach to fusion funding.

Annual budgets, which include the U.S. commitment to ITER, have fluctuated between \$350 and \$500 million over the last few years. Compare this to the fact that in the period since 2006, the U.S. has spent over

\$100 billion in subsidies and tax-breaks on low-energy-dense "renewable energy." This meager budget for fusion has resulted in unnecessary, and unproductive, competition for money among equally worthy and necessary programs within the fusion community. Just to give a flavor of the squabble over a relative pittance, look at the 2014 fusion budget, which cuts \$22 million from the previously budgeted U.S. allocation to ITER, and diverts it into MIT's tokamak program to keep it going for two more years; the program otherwise faced shutdown after this year, according to the previous 2013 budget.

In reality, both projects are equally necessary and worthy of funding, and should be part of a hyper-accelerated program to realize the potentials of fusion power. Compare this example of the yearly budgeting approach currently employed in the U.S., to the approach taken by South Korea, the other nation operating a superconductive tokamak reactor (KSTAR),¹⁷ and one that has experienced a "miracle" rate of economic growth in the last half century, where fusion budgets are guaranteed by law until 2040.

First-hand reports to this author reflect an unfortunate and common trend in the U.S. toward reducing its fusion commitment. At the University of California San Diego, for example, one of the few universities in the U.S. with a fusion energy program, funding cuts are forcing the science department to shut down the division that deals with the engineering and construction of fusion reactors, thus limiting work to basic plasma research only. This is done despite the fact that nearby San Diego State University is at the center of what was the Ares program, a Department of Energy-funded program that functions to facilitate activity among, and provide a platform for dialogue and data-sharing between, the fusion reactor R&D projects that operate at various labs throughout the United States.

Another example which is indicative of the state of affairs regarding fusion in the U.S., is the status of the National Compact Stellarator Experiment (NCSX) at the Princeton Plasma Physics Laboratory. This new plasma-confinement experiment, known as a stellarator design, was developed to offer an alternate path to fusion energy. The design would produce a kind of

twisted ring-shaped plasma, carefully crafted to integrate the demands of 24 different parameters, and take advantage of the natural contortion tendencies of the plasma. At the point at which the parts had been completed, and only required assembly, the program was shut down, due to lack of funding. Of the \$100 million needed to complete construction, China offered half, if the U.S. could find the rest. After the U.S. could not, China then offered to complete the project in China. This offer was refused based on a glimmer of hope that the funding might one day appear in the U.S. ¹⁸

A Shining Example: U.S.-China Collaboration

Fusion research is an area that currently expresses best what the future might hold, were there to be a true cooperation among nations.

As it is, a number of the most progressive breakthroughs in the fusion world have come about as a direct result of U.S.-China collaboration. These include the record-setting achievement of a pulse-length confinement time of 30 seconds for an H-mode plasma at the Chinese EAST (Experimental Advanced Superconducting Tokamak). This record result was achieved by Chinese scientists beaming a microwave frequency into the plasma, which reshaped the magnetic field lines that confine the plasma, thus reducing the instabilities. This new technique was combined with one developed by fusion scientists at Princeton Plasma Physics Laboratory, which is to coat the plasma-facing wall of the tokamak with a lithium metal, which absorbs the stray particles of plasma, stopping them from disrupting the fusion process.

Another collaborative advance was achieved with the Doublet III-D tokamak at General Atomics in California, where U.S. scientists, along with visiting plasma scientists from the Chinese EAST project, conducted experiments with the DIII-D tokamak that demonstrated that the plasma itself generated a current that was more than 85% of the current in the plasma. This large "bootstrap" current will significantly reduce the amount of external power required for confinement of the plasma. Dr. Andrea Garofalo, General Atomics scientist and co-leader of the joint experiment, commented

^{17. &}quot;Fusion in Korea: Energy for the Next Generation," *EIR*, Dec. 4, 2009. http://www.larouchepub.com/eiw/public/2009/2009_40-49/2009_40-49/2009-47/pdf/28-35_3647.pdf

^{18.} For a deeper understanding of the sabotage of fusion, which has been caged in the "fusion is always 30 years away" cell for the last 30 years, see Megan Beets, "Who Stole Fire from Mankind: The Suppression of Fusion," 21st Century Science & Technology (offprint), May 2014. http://www.21stcenturysciencetech.com/Articles 2014/Suppression Fusion.pdf



ransrapid

China is currently the only nation in the world utilizing maglev for commercial transport. This technology, like many others, originated in the U.S. (and Germany), where its development has screeched to a halt.

on this, saying, "It is often said that a plasma with a high fraction of self-generated (bootstrap) current would be difficult to control. However, these experiments show that a high bootstrap fraction plasma is very stable against transients: the plasma seems to 'like' a state where a large fraction of the current is self-generated." It is likely that insights gained from this experiment with the DIII-D tokamak represent part of what contributed to the previously mentioned breakthrough at the more powerful EAST reactor in China. These breakthroughs and results are likewise likely to contribute further toward the larger international collaboration being done with ITER.²⁰

Ironically, much of the high-end technology being developed by China, and other nations for that matter, has its origin in the United States. The bulk of that technology comes out of the scientific and productive potential built up under the leadership of Franklin Roosevelt, and in the echoes of his legacy, as under the Eisenhower and Kennedy administrations, with, for example, the Manhattan Project, Atoms for Peace, and the

Apollo missions. It was out of these projects that the world got nuclear power, atomic medicine, and deepspace exploration capabilities, with leading scientists from around the world emigrating to America to participate in the advancement of human progress.

Likewise, the next generation of infrastructure technology, in particular, transportation and energy, has also been heavily borrowed from the U.S. For example, maglev trains, which China is currently the only nation in the world utilizing for commercial transport (Japan is currently building one as well). Maglev is based on a technology origi-

nally developed by U.S. and German engineers. The latest design, using maglev trains traveling inside evacuated tubes that can reach speeds of up to 4,000 mph, and which was recently tested at China's Applied Superconductivity Laboratory of Southwest Jiaotong University, originates from the Brookhaven National Laboratory in New York, where it was patented in the 1960s.

Also, China's record-setting superconducting tokamak reactor EAST is based on designs (and scientists) from the Princeton Plasma Physics Laboratory, specifically the TPX (Tokamak Physics Experiment), which was designed to be the next generation of tokamak experiment, but was subsequently dropped in the U.S. due to lack of funding.²¹

Where Is the National Commitment Today?

In addition to analyzing statements regarding ambitious projects and grand visions for the future, we need to look at where the actual physical and economic investment is being directed, as well as analyzing trends in terms of changing rates of investment. One

^{19.} Read more at: http://phys.org/news/2013-11-plasma-self-control.html#jCp

^{20. &}quot;India Looks to Next Energy Frontier: Fusion Power," *EIR*, June 6, 2014. www.larouchepub.com/other/2014/4123india_frontier_fusion. <a href="https://https

^{21. &}quot;Interview: Dr. Yuanxi Wan: China's Ambitious Path to Fusion Power," *EIR*, March 11, 2011. http://www.larouchepub.com/eiw/public/2011/eirv38n10-20110311/46-54_3810.pdf

general area to look for an indication of economic direction is R&D spending. A December 2013 article in R&D Magazine states: "China has increased its R&D investments by 12% to 20% annually for each of the past 20 years; while at the same time, U.S. R&D spending increased at less than half those rates. As a result, China's investment is now about 61% that of the U.S., and continuing to close. At the current rates, China's commitment is expected to surpass that of the U.S. by about 2022, when both countries are likely to reach about \$600 billion in R&D. China is investing heavily to create an innovation infrastructure that will allow it to develop, commercialize and market advanced technology-based products, moving beyond its established position as a low-cost location for manufacturing."

The article goes on to say that, as a result of this policy, "China's middle class will expand from 35% to 75% over the next 10 years—a demographic statistic that reflects economic growth and, to some extent, an innovation-enabled society." The article does go on, however, to state that at present, "global researchers surveyed still consider the U.S. superior to China in basic and applied R&D," and that "U.S. industrial, academic and government R&D are also viewed more favorably than Chinese counterparts."

Nonetheless, the direction is clear.

Also, China's current lag behind U.S. capabilities is being compensated for by the fact that, "about a third of China's advanced R&D is pursued in collaboration with U.S. research organizations, and about a quarter in collaboration with European research organizations."

Economics as Nation-Building

When we say that China is moving with an American System-approach to economics, we refer to the kind of credit-expansion policy, to the tune of \$10 trillion over the past six years, being directed towards high-technology infrastructure growth.

This is something that has recently been spotlighted and discussed by a top economic advisor to Russian President Vladimir Putin, Sergei Glazyev, who, in a May 12, 2014 interview with the Russian financial



kremlin.ru

China is playing a leading role in such multinational alliances as the BRICS, which, at its July 2014 Summit in Brazil, announced the formation of a \$100 billion "New Development Bank" to be headquartered in China. Here, the leaders of the BRICS nations join hands at the Summit. Left to Right: Russian President Putin; Indian Prime Minister Modi; Brazilian President Rousseff; Chinese President Xi; and South African President

newswire rbcdaily.ru said: "During the recovery of the Chinese economy, currency emission rates were exceptionally high. It was the same during the Japanese economic miracle.... If currency issue is given away to banks for speculation, then comes inflation. If it is for refinancing of the real sector and investment in the modernization of scientific and technical potential, it is anti-inflationary."

This is precisely the case with China, for its currency emission since 2008 has indeed been well over \$10 trillion, three times the Fed's total, yet without the level of asset inflation that we find in the West. China's currency emission policy has been ritually denounced by prominent British economic writers as guaranteeing a global crash, hyperinflation, etc. On the contrary, as noted by Glazyev, this issuance has been directed as credit toward the industrial sector, as opposed to speculation, to the effect that now the Chinese are leading the world in the production of high-speed rail, as just one example of their industrial transformation.

This is in the spirit of the kind of policy employed by Abraham Lincoln, for example, in the financing of the Transcontinental Railroad during the Civil War, made possible by his Greenback policy, which itself

was an expression of the revolutionary concepts of Alexander Hamilton as he expressed in his reports to Congress on national banking and manufactures.

Add to this the physical investment being made on the part of China into the continent of Africa, where China is planning another 80,000 km of internal high-speed rail by 2020. In Abuja, Nigeria, on May 8, speaking at the World Economic Forum for Africa, Prime Minister Li proposed connecting all African capitals by high-speed rail, with financing from China and no political strings attached, according to *China Daily*.

Li said China and African countries would jointly launch high-speed railway technology R&D centers while cooperating on railway planning, construction, and operation. China will also help with African highways and airports, and is adding a new \$10 billion credit line for Africa, as well as \$20 billion already offered, and will increase the China-Africa Development Fund by \$2 billion, to a total of \$5 billion. "History and reality make clear to all: China's development gives opportunity to Africa; Africa develops, and China also benefits," Li said.

Most recently, China is moving to concretize agreements to set up an Asian Infrastructure Investment Bank (AIIB) with offers of participation to India, among a number of other nations. As reported by the *Financial Times* Beijing correspondent, "China is expanding plans to establish a global financial institution to rival the World Bank and the Asian Development Bank. In meetings with other countries, Beijing has proposed doubling the size of registered capital for the proposed bank to \$100 billion," and, "Most of the funding for the lender would come from China and be spent on infrastructure projects across the region, including a direct rail link from Beijing to Baghdad."

China and India have already made public statements about collaboration in space, as have Russia and India, who already have a decade of collaboration in space. Such collaborative efforts would only be strengthened by the joining of India, which currently has observer status, to the Chinese- and Russian-led Shanghai Cooperation Organization (SCO), a political, economic, and military forum for Eurasian nations; not to mention the ties being forged among these nations through the BRICS summit.

Add to this the multi-billion-dollar agreements be-

tween China and Argentina for China to export locomotives and build high-speed rail there, financed by the China Development Bank. In addition to this, in the wake of the BRICS agreements, new deals have recently been signed to send nuclear components to Argentina from China.

So China is positioning itself to be a world leader in manufacturing and export of heavy capital goods, and is quickly developing a robust domestic machine-tool capability.

Looking to the Future

The common adage that the progress of the Apollo program, or the massive industrial and technological build up of the U.S. in times past, was singularly and fundamentally driven by competition among powers during periods of hot and cold war is simplistic folly. While international political concerns were, and are, a serious consideration, and often necessitated scientific advancement, this is not the soul of what moved us in the past, and it will not be the motivation that returns America to its role as a beacon of hope for the future. Our mission must again be focused on that which was truly at the heart of what drove us to our greatest heights, which was to achieve the moral scientific high ground for the common good of all mankind.

The space-race for example, is not a race for the sake of sport or geopolitical control; rather, it is keyed by a purpose to preserve the moral authority of this nation, and to do it in collaboration with those nations and peoples who also see a future for humanity that is guided by the creative light of the human mind, and the technologies that express it. To lift the whole of the human race to a standard of living and quality of life which affords to all an opportunity to develop and express their potential, and thereby make an immortal contribution to the whole of human history, is our mission.

We must be driven by a commitment to expand throughout the Solar System and beyond, the potentials of the creative mind. Today this is achieved by committing the U.S. to a wholehearted effort to realize the virtues of thermonuclear fusion and deep-space exploration, done in collaboration with Russia, China, and India. The grim alternative is world war, so this we must do. Who and where are the leaders that will make it happen?

The Power of Helium-3

by Benjamin Deniston

The following presentation was made by Basement Science Team member Benjamin Deniston at the Aug. 8 LaRouchePAC webcast.

I want to take a few minutes to get into the issue of helium-3 fusion that Lyndon LaRouche has put on the table, and the Chinese have put on the table, and that we're emphatically backing and supporting as the most important thing to be done right now. So, in general, fusion power, nuclear reactions in general, fusion and fission, are millions of times more energy dense than any form of chemical fuel, chemical energy, and you get new qualities of energy that allow you to do more types of work than you could possibly do with a lower quality source.

But that being the case, it's still the fact that not all fusion fuels are created equal. And so, to make sure people are very clear on the importance of helium-3 specifically, we should juxtapose that to the current types of fuel being pursued under, say, a first generation, or what I would call a 20th-Century mode, of fusion power.

Now, the current reactions are mostly dependent upon isotopes of hydrogen, and the issue you get with the current fuels being pursued, which are accessible on the Earth, is that most of the energy released comes in the form of what's called a neutron, and the challenge involved here, is that the neutron generated cannot be controlled by a magnetic field, cannot be influenced by electrical fields, and therefore, cannot be contained and controlled by the plasma. And so, what you're left with, with first-generation, or what I'll describe as 20th-Century types of fusion reactions, is you create products that you can't contain within your fusion plasma itself, and your ability to get useful power out of them requires using the heat generated from these products to then boil water, generate steam, and spin a turbine.

If you're familiar with that process, it's because that's how we generate power with coal; that's how we generate power with natural gas; that's how we gener-

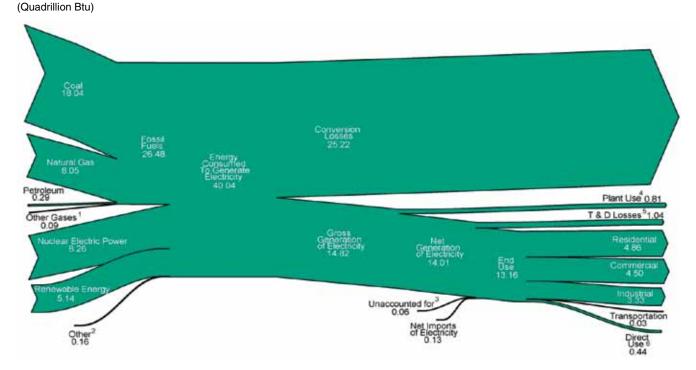


Not all fusion fuels are created equal, said Ben Deniston. With the initiative China is taking toward mining helium-3 on the Moon, mankind can leap from 20th-Century technologies, into a future of unlimited energy resources.

ate power with nuclear fission power. Now, this is a very inefficient process. In general, you get maybe up to 40% of the actual energy created by your fuel reaction that can be converted into electricity, and the rest is completely lost.

So we pull up this first graphic (**Figure 1**). This is an illustration of the electricity generation in the United States in 2011. So, when we say that the current steam/ turbine cycle is only 37-40% efficient, we should look at what that actually means. This is the entire electricity generation, power generation, in the United States. You can see the sources of the power, coming from the left, coal, natural gas, nuclear, what they call "renewable"— although they're kind of lying there, because most of that "renewable" is hydropower, and the second-largest "renewable" is wood. So if you want to look at what they throw around as geothermal and solar and all these other wild ideas, it becomes an incredibly small frac-

FIGURE 1
Electricity Flow, 2011



tion of anything actually used, because it's so inefficient.

But all of these sources of energy, the majority of all the energy generated by these fuels is lost, it goes nowhere. It's not used at all. The conversion loss is the giant section splitting off, up on the top. That's all energy we're generating from our fuel sources, which we have no use of, whatsoever.

So for the total U.S. energy production, it's about 37% efficient; 63% of that energy is completely lost to the conversion process, which is limited by the basic process of heating water, creating steam, using the steam to turn a turbine. You can do a little bit better with certain gas cycles, other than steam cycles, but you're still limited by this fundamental process.

The first generation of fusion fuels is bounded by this same process: If you have a product like deuterium-tritium fuel, which is the fusion fuel that's the first-generation fuel that's being pursued by most fusion programs today, most of your energy is generated in particles you cannot control in the fusion plasma, and you have to stick with basically a 20th-Century mode of power production to get your power from this much higher quality reaction. So that's the current, say, first generation or 20th-Century method.

Second-Generation Fusion Fuels

Now, there have been long investigations by fusion scientists of what you might call second-generation fuels, or advanced fusion fuels. Now, these are fuels that have somewhat potentially higher temperature requirements to get the ignition, but when you get the ignition, the vast majority of all the energy released can still be contained within the fusion plasma itself. You don't have to stick to this neutron cycle, you don't have to go to this steam cycle to generate electricity. You can act on the fusion plasma itself, to do what's called direct conversion: to use the qualities of the fusion plasma to then generate electricity directly, or generate it from various modes of radiation that the plasma will emit.

But the point is, this type of process immediately doubles your efficiency in converting your fusion reaction to electricity, to power, but it puts you in the domain where you're looking at the beginning of a real, advanced fusion economy. We're actually beginning to generate power, not in the mode of the 20th-Century steam cycle, but working with the physical properties of the fusion plasma itself, to begin to generate these powers directly.

And the most advanced, the best available fuel for

that, the fuel that gives you the most energy per reaction at the lowest temperature requirement, to get the ignition, is helium-3. So it's not a new surprise to many serious fusion scientists and others, that helium-3 is the ideal fuel for an advanced fusion economy, for a 21st-Century fusion economy, not a 20th-Century fusion economy.

So, to support the world and support the development of the Solar System, we're going to need this helium-3 source. And the other advantage I'll get into, in just a few moments, is that it opens up completely new potentials in space transportation as well, for the same reason that the reactions of the products you get are completely controlled by magnetic fields, and allow you to use the fusion reaction directly, to completely transform our access to space.

So these are two expressions of the power of helium-3: why it gives you a higher energy-flux density for your economic process, and why it's the best fuel available for mankind, immediately, today.

10,000 Years into the Future

Now, as has been said, where do we have to go to get this? We have very little helium-3 on Earth. But the Sun has been producing this stuff for billions of years, cranking away, spitting this stuff out, and there is a huge amount of it embedded in the lunar surface, in the lunar regolith, in the lunar soil. And the method of extracting this, is not necessarily all that difficult. So, with an ability to get to the Moon, set up serious mining and development operations, we have at hand access to a vast potential of a completely new capability for mankind, a new capability for mankind that will transform the Earth, and transform the Solar System.

Now, studies have indicated there are upwards of 5 million tons of helium-3 on the Moon, and that has been said to be enough to power the entire planet Earth for 10,000 years. Now if you think back, a lot has changed in 10,000 years. So if you're talking about securing power for 10,000 years into the future, we've got a lot of room to work with under that perspective.

But to put this in concrete terms that will help people conceptualize this—how much is 5 million tons? What does that mean?

So we did an example to illustrate one pedagogical expression of what the energy density of the power of helium-3 is, as viewers of the LaRouchePAC website know, we've been very upfront and concerned about

the global water crisis. And there was recently a report on the rapid loss of water in the Colorado River Basin, that, according to studies by new NASA satellites, the rate of water loss has been significantly more than had been realized. And over the past nine years, mostly from groundwater depletion, pumping water out of the ground, the Colorado River Basin, as a whole, has lost about 7 cubic km/year, which is equal to about half the flow of the Colorado River itself! So for the Colorado River to be supplied, that would require increasing its own flow by 50%. But that's the rate at which we've been depleting the water availability in the Colorado River Basin.

So, say we want to look at the water crisis from the standpoint of the Moon and helium-3 fusion. Say we wanted to match this rate of water loss, which is a devastating threat to the Colorado Basin in the entire West, with desalination. Say we wanted to do that with desalination using helium-3 fuel: How much helium-3 would it take per year, to match the rate of loss that's occurring in the Colorado River Basin? Well, if you crunch the numbers, it's one-third of 1 ton of helium-3 per year. That's enough to fit in the back of a pickup truck, and that's enough to power desalination to match the water loss of this entire river basin.

Again, to compare this with other sources, if you wanted to do this with coal, you could power desalination with coal. You could generate electricity and do desalination. But to match the same levels, it would take 6.7 million tons. So, one-third of 1 ton, to 6.7 million tons. Now, again, what does that mean, 6.7 million tons, when you picture 6.7 million tons? If you wanted to put that into railcars, you're talking about 67,000 railcars. If you go to the second graphic (**Figure 2**), that's the equivalent of the length of the I-5, stretching from San Diego to the California-Oregon border (about 800 miles).

I imagine most people have been stopped at a rail-road track, waiting for the train to go by: You better hope it's not this train, because you're going to be in trouble if you're waiting for this many—for 67,000 railcars, stretching the entire length of California along the I-5 Freeway. This is contrasted to the helium-3 fitting in the bed of one pickup truck. That's amazing; that's some power! And if you think about it, you're talking about, with mankind, it only requires one-third of 1 ton/year, for mankind to match the requirements of an entire river basin in the United States.

So that's the kind of power we're talking about;

FIGURE 2
Interstate 5 Across California



and with this level of energy-flux density, mankind can not just solve the problems in one river basin in the West, but we can control the global water cycle. We can solve our water needs, we can solve our fuel needs, we can produce synthetic fuels. We can address these concerns. We can open up entire new resource bases with the higher productive capabilities of hightemperature plasmas in thermonuclear fusion, and we can greatly expand what LaRouche has defined as the science of the powers of labor, the physical powers of labor; that, what you see historically, with the development of mankind, is that the ability of the individual to produce work, is not defined by the muscle power applied, or even the energy applied, but the energy-flux density and the high-technology applied to the individual worker is what creates growth, creates value, creates an expansion of the economy, and that's the type of perspective we have with this helium-3 proposal.

The Helium-3 Age of Mankind

Now, I wanted to just take one other example, to look at the other aspect which LaRouche has put on the table regarding the helium-3 age for mankind: And

that's the application to space, and space propulsion.

I thought it was useful that, just over the last couple of days, there was a remarkable event, which was the European Space Agency rendezvous, the first spacecraft to rendezvous with a comet. We've flown by comets before. We've done a fly-by, taken some pictures and passed on—that's been interesting. But this will be the first time, right now, this *is* the first time we've actually put a manmade spacecraft in orbit around a comet. And in a few months, we're going to descend a lander down onto the comet, and investigate the comet, which will also be a first

So this is exciting stuff, a very impressive mission, very good. But let's be serious and look at what it took to do this. I want to pull up the third graphic here (**Figure 3**), just to illustrate, following this case study, to look at the relation of fusion and helium-3 propulsion to mankind's development of the Solar System. Here you see the orbits of the Earth, Mars, and the comet, 67P. So, now, we generally think about travel as going from Point A to Point B:

The Earth is Point A; the comet is Point B. But, in the realities of travel in the Solar System, especially using chemical propulsion, it's not quite that simple.

We can go to the last graphic (**Figure 4**). You see added on here—it's somewhat messy and complicated—you've got to take some time to unwind the whole thing: This is the actual trajectory that the spacecraft took to reach this comet. And instead of going from Point A to Point B, it went from Point A, Earth, around the Sun, back to Point A, Earth, used the gravity of the Earth to get a little bit of a boost, went all the way around, and two years later, went to Point C, Mars, to get another gravity boost, and then went around for another two years, back to Point A, Earth, to get another gravity boost, send it on a path where, five years after that, it arrived at Point B. So you go A, to A, to C, to A to get to B, in space travel under a chemical propulsion mode.

That took 10 years to do this, to reach this comet. Again, this is an impressive mission, this is very exciting, it's good it was done. But, we can not survive in the Solar System if it takes us 10 years to get to another body. Now, if this were fusion propulsion, and if we used the energy density of fusion, and specifically,

FIGURE 3

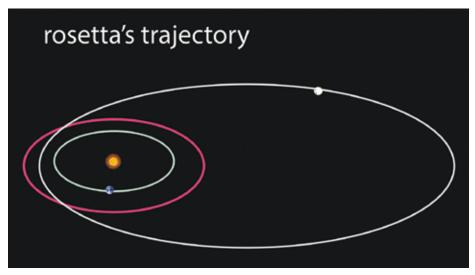
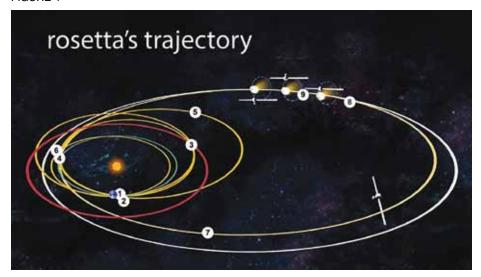


FIGURE 4



helium-3 fusion, again, because of the fact that all the reaction products produced by the fusion reaction can be controlled by a magnetic field, and can be pushed out the back to give you thrust, your propulsion, which you can't do if you have a lot of neutrons in the reaction—you're left with a much less efficient method—with that level of advanced helium-3 fusion propulsion, it would probably take on the order of couple weeks to get to that comet. So, 10 years, maybe down to a week, or a bit slower, a month or so.

So this is just a couple of illustrations, case studies, but the general principle is that this is the basis for mankind's access to the entire Solar System.

The Defense of Earth

Now this covers, obviously, the defense of Earth: Asteroids are going to hit Earth again. comets are going to hit again. If mankind is going to survive, we need the capabilities to get to these bodies quickly, to find them, to know where they are; but it's subsumed by a broader perspective, which is mankind's mission to develop the entire Solar System, mankind's mission to use the Moon as the powerhouse, the power store, the base of operations, to empower mankind, uniquely, mankind wielding this capability: It's mankind wielding helium-3 that can do this, to then bring mankind to the next level of controlling and developing the Solar System as a whole.

And so that's, I think, the perspective we need to have, for what's been put on the table with what China is doing. And what our response needs to be is to get behind this, as the only sane approach. As LaRouche has said: What the planet Earth now depends upon, is the adoption of the helium-3 driver program as *the* basis for policy, as *the* basis for any sane national economy at this point. La-

Rouche said, yes, we recognize it's going to take some time; it's not going to happen tomorrow, but so what? You decide to do it, you make that decision, you set that as the benchmark, the metric, the goal, and that shapes everything you do from there. That means what you do today and tomorrow is now changed, even if you're doing the same thing; it's now changed by the fact that it's contributing to creating that.

So the most important thing now, is to adopt that as the mission, which then defines everything we do from now, until then, and gives mankind the capabilities needed to handle the Solar System, and beyond.

INTERIORAL

Russia Pursues Diplomacy But Prepares for War

by Nancy Spannaus

Aug. 11—For weeks now, but with increasing intensity over recent days, the Russian government has been engaged in non-stop diplomacy with everyone who will talk—the Red Cross, the Kiev government, Secretary of State John Kerry, among them—to try to avert further genocide by Ukrainian forces who are besieging the southeastern Ukrainian cities of Lugansk and Donetsk. The response from Ukraine, the United States, and Britain has been unequivocal: We will consider the delivery of humanitarian aid by Russia to be an invasion. We will continue to level the cities until the anti-Kiev militias surrender.

President Vladimir Putin, who, according to Foreign Minister Sergei Lavrov, is personally on top of the situation, has drawn the lessons of the NATO stance. As early as 2011, in the wake of the assassination of Libya's Muammar Qaddafi, the Russian government made public that it knew that it, and China, were the targets of NATO's "regime-change" offensive, through means, up to and potentially including, thermonuclear war. Since then, Russia has made systematic efforts to avoid direct confrontation through diplomacy—while laying the groundwork domestically and internationally to defend itself against the threatened war.

While beginning a process of both military modernization, and establishing a war economy, the Russians, as well as the Chinese, have consistently offered an alternative to the West, including offers of joint work on

the Strategic Defense of Earth against comets and asteroids, and of economic cooperation in major infrastructure projects, such as the Bering Strait tunnel. Those who take these offers as a sign of weakness and fear do so at their peril. As Lyndon LaRouche has stressed, Russia *will not* capitulate to blackmail—and an ensuing war would be a war of extinction.

Attempting To Stop Genocide

The genocide ongoing in southeastern Ukraine, by both Ukrainian government forces and the freelance Nazi battalions made up of the forces that which helped bring that government to power, should be no surprise. As EIR has documented, along with Russian and other sources, the overthrow of the Yanukovych government last November came at the impetus of British- and American-nurtured Nazi networks, who carried out such genocide in the 1940s, and could be expected to do it again, especially against those identified in any way with Russia. EIR's May 16 dossier on the Ukrainian coup was definitive,1 and the current Kiev government's embrace of Nazi-style "ethnic cleansing" became obvious with its continued stonewalling on the investigation of the immolation of anti-Kiev civilians in the Odessa Trade Union building massacre of May 2.

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^{1. &}quot;British Imperial Project in Ukraine: Violent Coup, Fascist Axioms, Neo-Nazis," *EIR*, May 16, 2014.

The Russian Foreign Ministry has repeatedly documented the genocidal results of the Ukrainian assault in southeastern Ukraine, especially the cities of Lugansk (originally 400,000 people) and Donetsk (originally one million people), and called for an international humanitarian mission. In addition to its own reports, it has cited the United Nations, which has said that over 1,360 people have been killed, and more than 4,080 wounded in the assault, while hundreds of thousands of Ukrainians have fled the region, mostly into Russia.

In a statement issued Aug. 4, the Russian Foreign Ministry offered lurid details: In Lugansk, no water supply, no cellphone communications, damage to natural gas lines, and destruction of several hospitals and clinics. In Donetsk, approximately a third of the population has

fled, and the power station for south side of the city has been destroyed. The Israeli destruction of hospitals and schools in Gaza is paralleled in Ukraine.

At a special session of the UN Security Council Aug. 5, the UN Office for the Coordination of Humanitarian Affairs confirmed the Russian charges.

In response to Russian pleas for an immediate cessation of force and an urgent humanitarian relief effort, the Ukrainian government has responded by urging the entire population of Donetsk, Lugansk, and Gorlovka to evacuate—and the militias to surrender.

The Western capitals are equally craven. Washington, London, and Berlin have all declared that any effort by Moscow to send humanitarian aid would be "unjustified and illegal," and lead to "additional consequences," in the form of sanctions. British Foreign Secretary Philip Hammond declared that Russian action would result in an "increased cost" to Russia, and that if Russia is so concerned about the humanitarian situation in the Donbass region, "it should immediately cease arming separatists so that the Ukrainian authorities can restore law and order."

The Russian Embassy in London responded caustically, that Hammond's statement is "unjust, misleading and unacceptable," that Russia is not supplying weapons to pro-Russian separatists in Ukraine, and that "in-



Creative Commons/YouTube

The usurper government in Kiev has so far refused to respond to Russian pleas for an immediate cessation of force against the civilian population in eastern Ukraine, and an urgent humanitarian relief effort in Donbass region. Shown, a destroyed house in an unidentified Donbass city, July 22, 2014.

stead the UK should do something to make the Kiev regime stop killing innocent civilians, prevent an appalling humanitarian catastrophe and start inclusive real political dialogue with all Ukrainian parties."

As of the present writing, neither the U.K., the U.S., nor other major Western powers have acted so constructively. Rather, they have upped their rhetoric claiming that a Russian invasion is imminent.

Girding for a War Economy

While pressing for international action, Russia has begun an economic policy process which leading Russians themselves describe as necessitated by "war" against Russia. While the West chortles that its sanctions will shut off sources of credit and monetary support, what the Russians are looking at is their nation's ability to physically survive. Like a competent military commander, they are asking: "Where are we going to get our supplies, our food, our energy, the electronics for our operations?" And they are systematically putting such a system in place.

This approach was clearly evident in Russia's opening negotiations with the Chinese for replacing electronics imports now being blocked by EU sanctions, and in its announcements of new arrangements with various South American nations to replace meat, dairy,

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fruit, and vegetables which Russia itself declared, on Aug. 6, it will no longer import from nations which have declared sanctions against it.

The most definitive voice on how the Russian government sees its policy has been that of Russian Academician Sergei Glazyev, an economist and official advisor to President Putin. Speaking with Bloomberg news on Aug. 8, Glazyev defined Russia's approach:

"Task no. 1 is to block those threats to economic security that are now coming from the U.S., neutralize them by reducing the dependence of our external economic activity on the mercy of American politicians, whose aggressiveness threatens the entire world.

"What could serve as our chief response is the implementation of a plan for fast-track development of the Russian economy.... This plan includes a transition to a sovereign monetary system underpinned by internal sources of credit, an active policy of innovation and support for progress in science and technology."

Bloomberg adds: "To further insulate its economy, Russia should abandon the use of the U.S. dollar as a reserve currency, according to Glazyev. Russia, whose international reserves are the world's fifth-biggest, needs to diversify its holdings to include China's yuan, India's rupee and Brazil's real." Glazyev emphasizes the importance of Russian economic cooperation with China, noting, Bloomberg wrote, that "the U.S. is trying to grow stronger at the expense of others, thwarting integration across Eurasia and checking China's clout."

Glazyev, the wire states, "perceives the world shifting to a war footing. There's a war waged against Russia with economic sanctions and military conflicts roiling Ukraine to Iraq, according to Glazyev." There is also an "economic war" under way, including the current sanctions against Russia, but these will backfire, according to Glazyev. Bloomberg writes: "The trading bloc stands to lose about EU1 trillion (\$1.3 trillion), an estimate he [Glazyev] says includes the possible bankruptcy of several European banks and companies toppled after the cutoff in financial and economic ties. An energy crisis in Europe will bring a sharp spike in prices and a loss of competitiveness for European producers. Meanwhile, Turkish, Chinese and East Asian nations will fill the void left by the departure of their European rivals from the Russian market. The fallout will cost EU250 billion for Germany alone while pushing the three Baltic states to the brink of an 'economic catastrophe,' he said. Lithuania and Latvia will lose the equivalent of half of their entire economic output, and the cost for Estonia will reach 50% more than its gross domestic product, Glazyev said."

Glazyev's strategy, the Bloomberg interviewer concluded, is to build bridges with the international community to rein in America's "aggressive, paranoid political leadership."

Military Measures as Well

In recent years, Russia has devoted considerable resources and attention to modernizing and upgrading its military defenses and arsenal, in order to deal with the NATO threat. Russia conducted an unusually high number of military exercises in 2013, including of its strategic nuclear forces, and the process of military preparedness—much of it undertaken under the watchful eye of President Putin himself—has continued apace.

Exemplary is an announcement Aug. 7 that the Russian Defense Ministry intends to double the size of its Airborne Forces to 72,000 troops over the next five years, and develop its own rapid reaction force—in a direct symmetrical response to NATO's announced plans for expanding its rapid reaction force.

"A considerable airborne troops build-up was discussed at the Defense Ministry back in 2012-2013, but at first nobody was in a hurry to translate it into reality," retired Gen.-Col. Victor Yesin, a former chief of the Strategic Missile Forces, told Itar-TASS Aug. 10. "The latest decision was prompted by the current political situation in Ukraine and the need for reacting to actions by our counter-partners, such as NATO member-countries."

On Aug. 11, a Russian Airborne Forces spokeswoman announced command and staff exercises of about 3,000 paratroopers in two districts of Russia's Pskov region in northwestern Russia, as part of command and staff exercises of the 76th Air Assault Division, starting Aug. 11. Over 3,000 personnel will be airlifted by 15 IL-76 planes, the spokeswoman said, to a region right on the border with Estonia, which NATO is turning into a forward base against Russia.

These measures are only a small slice of what Russia has done over the past years to be prepared for the worst.

It remains to the Western nations to decide whether they will shift gears to join with Russia and China's economic thrust, by dumping the British Empire—or whether we will head into a conflict with a Russia prepared for World War III.

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Get Out of NATO, Before It's Too Late!

by Helga Zepp-LaRouche

Aug. 8—Quite the opposite to what is suggested by the demonization of Russian President Vladimir Putin in the regimented Western mass media, it is the British and U.S. governments, NATO, and the EU, who are escalating a confrontation strategy towards Russia, at the conclusion of which will be a thermonuclear world war and the extinction of mankind—if this is not stopped. The fact is, that there is only one way out for Germany: It must withdraw from the Alliance immediately, if it doesn't want to dig its own grave, and be complicit in the preparations for a war of aggression.

The infamous scenario is to find a way to overthrow Putin, one way or another. There is still not the slightest evidence that the eastern Ukrainian rebels or Russia were responsible for bringing down the Malaysian Flight MH-17, but instead, according to the respected investigative journalist Robert Parry, circles within the U.S. intelligence community now assume that it was the Ukrainian government or battalions of Ukrainian Nazis, egged on by the West against Russia. No one says a word about how Kiev has launched a massacre of its own people in Donbass, that is just as bad as the one Israel is carrying out in Gaza. The intention is obviously to increase the suffering of the oppressed, predominantly Russian population so that Putin, in light of the "unacceptable humanitarian situation," is forced to intervene militarily, or lose the support of his own people.

At the same time, the absolutely unjustified sanctions against the Russian economy are supposed to make it "grind to a halt," as Obama put it, and behind the sanctions is the intention to have Putin brought down by the Russian population because of the engineered privation. In a few weeks, as Wolfgang Münchau recently wrote in *Der Spiegel*, this financial nuclear bomb is supposed to blow away Vladimir Putin. If he opts for the military support of the pro-Russian population, which is at risk of genocide in

eastern Ukraine, then this provides the pretext for the intervention of NATO, and then we are at war in Europe, which cannot remain limited due to the nature of nuclear conflict

Cameron Takes the Lead

At the same time, preparations are in full swing, at the Sept. 4 NATO summit in Wales, to replace the allegedly outdated 1997 NATO Treaty with Russia, with a new one that will allow a forward stationing of weapons systems and troops to the Russian border, which under that treaty was expressly forbidden.

The British government has taken the high command, primarily because of the beleaguered state of Obama. British Prime Minister David Cameron is spreading propaganda, in the best tradition of Tony Blair's lies prior to the Iraq War, about an alleged threat to the Baltic States coming from Russia. British Deputy Supreme Allied Commander, Gen. Sir Adrian Bradshaw, called on Aug. 3 in the Wall Street Journal for the creation of a rapid reaction force against Russia: "What is required, effectively, is an air-land package that provides a clear message that any incursion into NATO territory will result in a significant engagement with all of NATO." If Russia, at any time in the future, were to put significant pressure on a NATO member country by assembling conventional troops on its border, this country would be "reinsured" by such a NATO intervention force.

The fact that Russia has not the slightest intention to invade the Baltics, and that it has shown amazing restraint despite the genocide against the pro-Russian population in eastern Ukraine, is completely buried by the Goebbels-style propaganda.

But, according to Cameron, and as Secretary of Defense Chuck Hagel also made clear during his recent visit to the U.S.-European Command in Stuttgart, the NATO activities in Ukraine should be strengthened, although Ukraine is not a member of NATO, and with its

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Presidential Press & Information Office

There is an alternative to the U.S.-NATO drive for war with Russia: Germany (and the U.S.) should join the BRICS in building a new, just economic order. But it may take a lot of convincing to bring Chancellor Merkel on-board. She is shown here with President Putin at the 70th anniversary commemorations of D-Day in France, June 6, 2014.

current government, it is as far removed from the socalled "Western community values" as is the Earth from distant galaxies.

In reality, NATO's goal, since the fall of the Soviet Union, has been the encirclement of Russia, and the creation of a strategic situation in which Russia is no longer defensible. The soon-retiring NATO Secretary General Anders Fogh Rasmussen has meanwhile declared himself in favor of NATO (which has long departed its role as a defensive alliance for the North Atlantic) also assuming tasks in the Pacific, thus joining the policy of the "Asia pivot" of the U.S.A. in the encirclement strategy toward China.

Locked into Confrontation

Leading European military, active duty as well as those in retirement, see themselves in a structure that has changed its character step by step. Nothing remains of the former Bundeswehr concept, which was based on *Auftragstaktik* ("mission tactics"), where officers were briefed on the overall mission, but encouraged to think for themselves, a model for civil society. Now, from the NATO structure, it is made brutally clear that independent thinking and strategic discussion is not in the job description of its military leadership, who are only to carry out orders. This is exactly

what Samuel Huntington, promoter of the "Clash of Civilizations," describes in his book *The Soldier and the State*, as the function of the imperial army.

The topic of an exit strategy, of how to get out of the confrontation with Russia, is not being discussed at any level, either within NATO or in the EU. The escalation of NATO's and EU's eastward expansion, induced regime change through socalled "color revolutions," economic sanctions, and ultimately, war, are therefore not accidental drifting, but the intent. The aim is not only regime change in Russia and China, but the complete absorption of their entire territories. Or, as former U.S. Secretary of State Madeleine Albright and former German Foreign Minister Joschka Fischer had once expressed it: Russia controls far too many raw

materials for the West to allow.

This imperial greed is fueled by the collapse of the trans-Atlantic financial sector, which brings the same geopolitical calculus into the game that had already stirred up the momentum against the "Eurasian heartland" prior to the First World War. But to imagine that it were possible, in the age of thermonuclear weapons, to eliminate unpleasant opponents through war, and then build an imperial hegemony afterward, is suicidal illusion.

The expressed intention of Münchau, to sweep away Putin in a few weeks with the help of the "financial nuclear bomb," is likely to prove to be hallucination-driven wishful thinking, and a boomerang. Because Russia, thanks to the BRICS and good cooperation with Latin America (see EIR, July 25, 2014), is by no means isolated. The Russian Space Agency Roscosmos is already working with the Chinese military complex to replace the American electronics which are being withheld, and sees this as the first step of a new technology alliance of the BRICS countries. Latin American and the Central Asian states, as well as India, are already happy to be able to supply Russia with agricultural products. And now all these states are drawing their own conclusions from the blatant campaign of lies and provocations from the West.

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Germany's Way Out

For Germany, it is an existential question: how to avoid being drawn into a thermonuclear war with Russia, and probably China, where, because of Germany's geographical location, not a single citizen would survive. If Germany were to agree to the proposed new charter at the upcoming NATO summit in Wales, it would be an absolute kamikaze operation. We call upon citizens now to support the exit from NATO!

There is an alternative. China has offered a form of economic cooperation with the New Silk Road program, which is open to all states. The BRICS countries, Latin America, and other nations are going to build a new just world economic order, and it is in Germany's fundamental interest to participate in it. This is true as well for the U.S.A., where some leading politicians are committed to precisely this cooperation.

China also has the most ambitious space exploration program in the world, with the intention of mining helium-3 on the Moon (see this week's *Feature*), where it is available in large quantities, as a fuel for a future fusion economy on Earth. Thermonuclear fusion based on helium-3 is the absolutely necessary next stage in

the progression toward higher energy-flux densities which humanity must achieve, in order to secure energy and raw-materials security on Earth, as well as the energy source for space flight, and to overcome the dangers which threaten us from space.

Germany must take part in the attainment of these common aims of mankind. Only when the cooperation between nations has reached that level, as is taken for granted by the astronauts on the ISS Space Station, or with the European Space Agency's Rosetta space probe, will we overcome the infantile phase of humanity's development, and establish our identity as the only creative species, as the basis of our actions. And only in this way will we survive.

Peace can only be inclusive. It is impossible in this world, which is in such a disastrous state, that only some states enjoy security and cooperation, while the rest of the world is sinking into chaos. Instead of confrontation, we must finally put the promise on the agenda that was squandered during the lost opportunity of 1989: We need a blueprint for lasting peace in the 21st Century!

Translated from German by Daniel Platt

EIR Special Report

The British Empire's Global Showdown, And How To Overcome It

In the face of a potential thermonuclear World War III, a confrontation being engineered from London by a desperate British-centered financial oligarchy operating through the vast—yet often underestimated—powers of the British monarchy, EIR has produced a 104-page Special Report, documenting both the drive for war, and the war-avoidance efforts of patriotic military/intelligence circles in the U.S., and the Russian and Chinese leaderships. The British hand behind the warmongers, and the concrete economic and strategic programs which can defuse the threat, are elaborated in depth. These include the Russian proposal for collaboration on the Strategic Defense of Earth (SDE), based on Lyndon LaRouche's original Strategic Defense Initiative (SDI).

The Global Showdown report is available in hard copy for $^{\$}250$, and in pdf form for $^{\$}150$, from the EIR store.

Call 1-800-278-3135 for more information.

The British Empire's Global Showdown, and How To Overcome It

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PRNational

IMPEACH NOW!

Obama Violates Constitution Again—with War in Iraq

Aug. 12—With its overwhelming July 25 vote declaring that "the president shall not deploy or maintain United States Armed Forces in a sustained combat role in Iraq without specific statutory authorization for such use," the U.S. Congress reasserted its constitutional authority to decide on questions of war and peace by passing House Concurrent Resolution 105, which, in compliance with the War Powers Act, mandates consultation. On Aug. 8, President Barack Obama thumbed his nose at the Congress and the Constitution, and announced a campaign of bombing in northern Iraq.

Rep. Alan Grayson (D-Fla.) has been the only federally elected official to unequivocally condemn Obama's unconstitutional, unilateral re-bombing of Iraq. He immediately sent out a tweet declaring, "There is no such thing as humanitarian bombing, in Iraq or anywhere else." He followed up with an op-ed published Aug. 11 in *USA Today*, entitled "Mr. President, When It's Our Money, and It's Our Blood, Then It's Our Decision."

Citing recent opinion polls showing fewer than 40% approve the bombing, and 55% oppose, Grayson says he is siding with the American people, and against the President. "We all know the history: U.S. soldiers invaded and occupied Iraq, looking for 'WMDs' that weren't there. That 10-year war cost us the lives of 4,425 American soldiers, left roughly 250,000 with permanent brain abnormalities from IEDs, etc., and cost us \$2 trillion—approximately 2.5% of our national net worth, accumulated over 200 years. Isn't that enough?"

Obama's decision "makes a mockery" of the so-

called "Powell Doctrine," Grayson said, since "no national security interest is threatened, we don't have a clear strategy, we're not using overwhelming force, and we have no way out."

But neither Grayson, nor any other Congressman, has called for Congress to reconvene to assert its authority in the only way which would be effective—impeachment of a lawless President. Apparently, it's the American people, who overwhelmingly reject Obama, who will have to light a fire under their elected representatives to get them to do so.

No Justification

For months prior to this decision, Obama had declared that he did not need to have Congressional authority to take military action in Iraq. The Narcissist-in-Chief meant what he said.

In his public statements on the reasons for the bombing, Obama declared that he was authorizing airstrikes both in order to defend American personnel in the Kurdish regional capital of Erbil, and to avert a humanitarian disaster ("genocide") among the Yazidis, an ethnic group which is under mortal threat from the spread of the Islamic State (ISIS) jihadis. Obama also reiterated that he did not believe that a solution for Iraq could be achieved by military intervention, and that he had absolutely no intention of putting "boots on the ground."

Yet, Obama already has approximately 1,000 "boots on the ground," and the U.S. airstrikes, of which there have now been at least nine, are a de facto

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In response to Obama's unconstitutional bombing of Iraq, Rep. Alan Grayson stated: "There is no such thing as humanitarian bombing, in Iraq or anywhere else."

initiation of a U.S. war in the region.

The intervention fulfills the condition of HCR 105, in being "sustained combat." In his Aug. 9 press conference on the South Lawn of the White House, Obama declared: "I don't think we're going to solve this problem in week. I think this is going to take some time," prompting the *New York Times* to headline its coverage, "Iraq Strikes May Last Months."

Indeed, military experts have noted that the "pinprick" bombing strategy being carried out by U.S. forces appears to presage greater U.S. military involvement down the line, as the strikes were followed by a simple repositioning of the Islamic State forces, often with more people and weapons.

Regime Change

Obama has also made clear that another major objective of his new war in Iraq is regime change, which he characterized as forming an "inclusive government" in Baghdad. A new Iraqi prime minister, Haider al-Abadi, was nominated over the weekend by the new President, thanks to U.S. pressure.

After initial threats to oppose the nomination militarily, Prime Minister Nouri al-Maliki has backed down, and merely threatened to challenge the appointment in court.

"Regime change" has been the watchword of Obama Administration and British war efforts—including in Libya, Syria, Ukraine, and Russia itself, where the major target of U.S./NATO hostility to President Vladimir Putin. In the first three cases, the Obama

Administration has succeed in sparking a "humanitarian" civil war of barbaric dimensions, as is now taking place in Iraq, in part, due to the administration's support for the Saudi sponsorship of Islamic terror.

When Will Congress Act?

Despite the dominance of warmongering idiots in Congress (such as Senators John McCain and Lindsay Graham), and of pro-war talks in the dominant media, Congress is fed up with Obama spitting in its eye. But it needs to be forced to act.

Rep. Jim McGovern (D-Mass.), initiator of HCR 105, released a weak statement hours after Obama dropped the first bombs on Iraq, saying that Obama's action "goes beyond protecting our military and diplomatic personnel. I am concerned that we are already seeing these different missions blur into one in the press and in Congress. That is deeply troubling."

McGovern didn't call for the military action to stop immediately, but said the "strikes do involve the United States directly in hostilities, regardless of how limited they are and regardless of whether there's a humanitarian purpose involved." Therefore, he added, Congress must act according to the powers of its office if the combat is still going on when Congress returns in September. That is much too late.

He also reiterated that "370 Members of the House voted for my amendment last month [in which] we made it very clear that we believe Congress has a significant constitutional role to play."

Rep. Colleen Hanabusa (D-Hi.) was more direct. "Getting involved in airstrikes moves us a dangerous step closer to direct involvement in Iraq's sectarian civil war, an entanglement we must avoid." the *Wall Street Journal* reported her saying. "[W]e cannot allow a humanitarian crisis to draw us into a war that would again cost the Iraqi people far too much in destruction and lives lost."

The current state of murderous chaos in Libya, where the U.S. has been forced to pull out of its embassy, is a constant reminder to the Congress that Obama's unconstitutional wars of regime change and so-called humanitarian intervention are disasters. The author of a petition calling for Congress to make the decision on this war, Robert Naiman, noted that the Libya war was also launched during a Congressional recess.

Congress should have listened to LaRouche and stayed on the job. But they still have the mandate to act, before it's too late.

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Obama Tells African Youth: Pay Your Debts!

by Douglas DeGroot

Aug. 11—President Obama's performance at a Microsoft- and MasterCard Foundation-funded meeting with African youth leaders in Washington July 28 removed any remaining doubts that an already skeptical African leadership may have had, that the Aug. 4-7 summit called by the U.S. President would lead to a shift in U.S.-Africa policy, to one of a development thrust to begin to fill Africa's enormous infrastructure deficit.

Instead, as revealed by the demands Obama made, the U.S.A. will continue to defend the bankrupt British global financial empire, and work to prevent African nations from developing in collaboration with the system being set up by the BRICS nations (Russia, China, India, Brazil, and South Africa), the only sane survival option the world now has. The global financial empire will lose Africa as its private resource preserve if the continent industrializes with the cooperation of the BRICS.

Covering up the real reasons Africa has not yet developed, in response to questions from the young leaders, Obama retailed the line that the problems that are impeding African development are internal, and, ludicrously, he said that African development will take place once these internal problems are dealt with. He was especially brutal on the the question of debt relief, saying point-blank, that African nations had to stop complaining about their usurious debt burdens, and just pay them.

That leaves the combination of China and the BRICS grouping as the only option open to Africa for infrastructure development. Chinese investment in Africa this past year was over than \$200 billion, more than double that of the U.S.A.

Since the July 14-16 BRICS summit in Brazil, a \$50 billion New Development Bank, plus \$100 billion in the Contingent Reserve Arrangement—for countries that get in trouble—is now being geared up, and one of its goals, which has been in planning for some time, will be infrastructure in Africa. A regional office for the BRICS bank is to be located in South Africa.

Large-scale electricity production, roads, and rail-roads are only part of what would be on the agenda, if the BRICS are successful. A reported 70% of the African population have no electrical power or only irregular power. These kinds of topics did not enter into Obama's performance at the meeting of the young leaders.

On the Debt

The following poignant question on African debt was posed to Obama by Kenyan participant:

"Africa is losing her people to starvation and diseases, which are otherwise curable. And this is largely because our governments are establishing very huge debts to the G-8 countries. As a global leader in the family of nations, when will the U.S. lead the other G-8 countries in forgiving Africa these debts so that our governments can be in a position to deliver and provide essential services, like social, health care, and the infrastructural development services to our people?"

Obama avoided the issues of food shortages and disease altogether, and claimed there had been advances in health care, without taking into account how lifespans are shortened by the fact that the majority of the population does not have sanitation and potable water.

He went on to say: "I will challenge the notion that the primary reason that there's been a failure of service delivery is because of onerous debt imposed by the West.... At some point, we have to stop looking somewhere else for solutions, and you have to start looking for solutions, internally....

"But do not think that that [debt] is the main impediment at this point to why we have not seen greater progress in many countries, because there's enough resources there in-country, even if debts are being serviced, to do better than we're doing in many cases."

Through the special features of "bankers' arithmetic," such as enforced currency devaluations, while significant portions of African debt has been repaid, large amounts are kept on the books, as *EIR* has documented in the case of Argentina.¹

Obama's Grievance List

The British financial empire-designed campaign, outlined by Obama, will serve to undermine the poten-

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^{1.} See Dennis Small, "Will Argentina Be First To Bolt from Bankrupt System?," *EIR*, June 27, 2014.



White House/Pete Souza

President Obama wagged his finger at African youth leaders at their recent summit in Washington, ordering them to "suck it up," and pay the predator banks.

tial for the successful implementation of the desperately needed infrastructure projects.

Obama presented a list of what he said were the impediments preventing African development: bad governance, no rule of law, corruption, and female oppression. These are all problems can only be solved effectively by economic development.

The British Empire's time-worn tactic is to use these types of issues as a grievance list to mobilize people against their governments, without providing any means to solve the problems.

Coming from Obama, the demand to eliminate corruption is especially outrageous, given the corruption of the millions of George Soros drug dollars channeled into his 2008 election. One African source noted that the amount lost to African corruption is measly, compared to illicit funds earned legally or illegally, and then illegally transferred out of an African nation by Western companies. He also said that if an African government tries to effect legislation for projects, it's charged with corruption. But nobody bats an eye at the billions of dollars that are funneled through K Street, which by the same logic, should be called corruption, but is instead called lobbying.

As for the issue of female oppression crippling African development, Obama should consider that women arduously till the soil with age-old hand tools to pro-

duce 70% of the food in Africa, while men attempt to eek out some money from the cash economy.

Obama urged the youth to pressure their governments to ensure that his list of complaints be rectified—without development—hoping to rope them into future destabilization projects, à la the so-called Arab Spring. Africa has the largest youth population in the world.

Security Blackmail

The creation of numerous conflicts and destabilizations across Africa by the anti-government militias and terrorists which are proxies of the British Empire, is another tactic that will be used to sabotage the development of

Africa, now that the BRICS opportunity is there. These conflicts were not mentioned by Obama in the meeting with the youth, but have been often referred to by the administration, and were discussed during the summit itself. These proxy forces are used to provide the pretext for U.S. and French military aid to, or intervention into, the countries under attack, to eliminate the peaceful environment needed for infrastructure development.

These type of operations have expanded greatly throughout big parts of Africa, since the Obama/NATO overthrow of the Libyan government by the use of militias, in conjunction with an extensive bombing campaign in 2011. The Qatar-financed arms networks are still running arms into militia bases in Libya that are active throughout the Sahel, as well as into other regions of Africa.

Some examples include:

- The radical militia takeover of northern Mali in 2012;
- The ongoing attacks against the government and population of Nigeria by Boko Haram;
- The Shabaab jihadi threat in Somalia, which is also being used to threaten Kenya to undermine large-scale infrastructural projects in a group of eastern African nations.

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40 Years After Watergate:

Impeachment Then, and Now

by Nancy Spannaus

Aug. 9—By now the story is well-known. When Richard Nixon resigned and left the Presidency 40 years ago today, he did it with the knowledge, conveyed to him by three powerful Republican lawmakers on Aug. 7, that he would inevitably be impeached, and convicted, if he did not leave office. He chose not to conduct the fight.

To some today, especially cowardly Republicans, this reality means that they should not launch impeachment proceedings against President Barack Obama until they can promise the same kind of surety. That argument is a dangerous fraud, which keeps us on the pathway to World War III.

When the impeachment proceedings were initiated against Nixon, seven months before his resignation, no such certainty existed. In fact, there were the very same charges of "partisan attack" from the Republican Party against the effort, charges which the Democratic Party mouths today. But over the ensuing months, new evidence, unearthed by the impeachment investigation, changed the minds of a lot of people, including in the American political establishment. Many such figures became alarmed about the reality they saw emerging: that Nixon was attempting to consolidate an FBI/CIA police state in these United States. They decided that Nixon had to go.

In short order, some of the most egregious of those fascist police-state measures were exposed, and at least nominally halted, with the Church Committee hearings and ensuing legislation, the most important of which were the establishment of an oversight procedure through the creation of the House and Senate Select Committees on Intelligence, and the passage of the Foreign Intelligence Surveillance Act (FISA) to eliminate warrantless wiretapping.

'Small Potatoes'

Yet today, in light of the process initiated by the British Empire-instigated 9/11 atrocity, and carried out

by Presidents George W. Bush and Barack Obama, the violations of Constitutional liberties by the Nixon Administration have to be characterized as "small potatoes" in comparison.

In his remarks on the Aug. 9 web-radio LaRouche Show, LaRouche movement political leader Tony Papert stressed this point. Yes, Obama—even more than Bush—is violating the Constitution by spying on Americans, usurping the prerogatives of Congress, and conducting illegal wars. Even Nixon, for all his virulent anti-communism, did not have the criminal insanity to put the U.S. on the course for war against a thermonuclear power, the Soviet Union. By contrast, Obama has put the U.S. on a course for thermonuclear war against Russia—a war which could result in the extinction of the human race at virtually any point ahead.

As LaRouche Show host Harley Schlanger noted, Obama is openly doing today what Nixon had to do covertly.

Attorney Douglas Caddy, who was involved in Watergate as an attorney for E. Howard Hunt and G. Gordon Liddy, and appeared as a guest on The La-Rouche Show, agreed that the "imperial Presidency," which was a widespread charge against Nixon then, is an actuality today. The difference, he said, was that there was actually a democratic process in 1972-74, which is why Members of Congress were able to deliberate, and convince Nixon to voluntarily resign.

Today, the institutions of government appear paralyzed, and unable to do what is necessary to save the nation from destruction.

Voices of Reason

While the LaRouche movement has been fighting for Obama's impeachment for at least five years (see "The Case for Impeachment of President Barack Obama," *EIR*, Jan. 15, 2010), Congress has been extremely slow to move on it. Both the Democratic and Republican leaderships in the House and the Senate have done their utmost to stymie any action, and to try to turn the discussion into a political game. This was on display during the recent House debate on Speaker John Boehner's proposed lawsuit against Obama, when the Republicans refused to give time to supporters of impeachment, and the Democratic leadership spent its allotted time telling Boehner to "take impeachment off the table" the way Nancy Pelosi had done for Bush and Cheney.

If the Democrats had had the guts to go ahead with

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the well-justified impeachment against Bush and Cheney at that time, the world would not be in the kind of imminent danger of conflagration it is today.

Among the Congressmen now coming forward strongly for impeachment is Rep. Walter Jones (R-N.C.), who has collaborated with Democrats during both the Bush and Obama administrations, to try to stop the train of senseless wars.

Jones gave an interview on impeachment to the North Carolina "Talk of the Town" program on Aug. 4, in which he laid out his reasoning. Jones said that Alexander Hamilton had given us the remedy of impeachment; that Speaker Boehner's lawsuit would cost taxpayers \$2-3 million; and that he's seen from his involvement in two lawsuits against Presidents that they do not work.

"I am one that believes sincerely that the Constitution says that when a President, be it a Republican or a Democrat, exceeds his authority, and you can't stop the President from exceeding his authority, then we do have what's called impeachment," Jones stated. "Thank Alexander Hamilton. He felt that the Congress needed to use this process to get the attention of a President. And if the President had lost the public trust, then move forward in that area. We recently had a vote to go to Federal courts. I did not vote for that. I was one of five [Republicans that did not]."

Hamilton's Argument

Hamilton laid out his thinking on impeachment in *Federalist Paper* no. 65:

"A well constituted court for the trial of impeachments, is an object not more to be desired than difficult to be obtained in a government wholly elective. The subjects of its jurisdiction are those offenses which proceed from the misconduct of public men, or in other words from the abuse or violation of some public trust. They are of a nature which may with peculiar propriety be denominated POLITICAL, as they relate chiefly to injuries done immediately to the society itself. The prosecution of them, for this reason, will seldom fail to agitate the passions of the whole community, and to divide it into parties, more or less friendly or inimical, to the accused. In many cases, it will connect itself with the pre-existing factions, and will inlist all their animosities, partialities, influence and interest on one side,



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In August 1974, Nixon was told by GOP leaders that his impeachment was nigh, and convinced him to resign. Will members Congress follow their example today, and convince Obama to follow Nixon's example? Here, the co-chairs of the Senate Watergate Committee, Howard Baker (R-Tenn., center), and Sam Ervin (D-N.C.), hold hearings in May-June 1973.

or on the other; and in such cases there will always be the greatest danger, that the decision will be regulated more by the comparative strength of parties than by the real demonstrations of innocence or guilt."

To deal with the dangers of impeachment, Hamilton thus argued for the model of the charges being brought forward in the lower House, and the trial being conducted by the Senate—rather than some other body. The Senate, one should recall, had been explicitly constituted so as to minimize being buffeted by transitory public opinion, and thus be more conducive to rational debate.

The debate as to whether the Chief Executive should be subject to impeachment was considerable, and went hand-in-glove with Hamilton's additional argument that there should be a single executive, not a government council. Having a single executive, subject to impeachment for abusing his authority, would prevent the concealing of faults and responsibility, Hamilton said, which is necessary to clearly discover the "misconduct of the persons [in the public] trust, in order either to their removal from office, or to their actual punishment in cases which admit of it."

In other words, the intent was that the Executive not be able to hide from his accountability. In his usual ironical style, Benjamin Franklin said that the Executive should look at the impeachment clause favorably, because where it were not available and the chief mag-

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istrate had "rendered himself obnoxious," recourse was had to assassination.

Obama has certainly "rendered himself obnoxious," as well as endangered the very existence of the Republic. It's time for him to go.

Documentation

House Judiciary Examines Impeachment

Aug. 12—An official report was prepared by the Committee on the Judiciary of the House of Representatives (93rd Congress) in February 1974, titled "Constitutional Grounds for Presidential Impeachment," in the context of the impeachment inquiry against President Richard Nixon. Relevant excerpts follow.

"The debates on impeachment at the Constitutional Convention in Philadelphia focus principally on its applicability to the President. The framers sought to create a responsible though strong executive: they hoped, in the words of Elbridge Gerry of Massachusetts, that the maxim would never be adopted here that the chief Magistrate could do [no] wrong. Impeachment was to be one of the central elements of executive responsibility in the framework of the new government as they conceived it....

"The framers intended impeachment to be a constitutional safeguard of the public trust, the powers of government conferred upon the President and other civil officers, and the division of powers among the legislative, judicial and executive departments."

Under a subsection called "The Purpose of the Impeachment Remedy" the report declares:

"One of the first decisions of the delegates was that their new plan should include a separate executive, judiciary, and legislature. However, the framers sought to avoid the creation of a too-powerful executive. The Revolution had been fought against the tyranny of a king and his council, and the framers sought to build in safeguards against executive abuse and usurpation of power."

The Congressional report concluded:

"Impeachment is a constitutional remedy addressed to serious offenses against the system of government, ... constitutional wrongs that subvert the structure of

government, or undermine the integrity of the office and even the Constitution itself, and thus are high offenses.... The framers understood quite clearly that the constitutional system they were creating must include some ultimate check on the conduct of the executive. While insistent that balance between the executive and legislative branches be maintained so that the executive would not become the creature of the legislature, dismissible at its will, the framers also recognized that some means would be needed to deal with excesses by the executive. Impeachment was familiar to them. They understood its essential constitutional functions and perceived its adaptability to the American context....

"The emphasis has been on the significant effects of the conduct—undermining the integrity of office, disregard of constitutional duties and oath of office, arrogation of power, abuse of the governmental process, adverse impact on the system on government. Clearly, these effects can be brought about in ways not anticipated by the criminal law. Criminal standards and criminal courts were established to control individual conduct. Impeachment was evolved by Parliament to cope with both the inadequacy of criminal standards and the impotence of courts to deal with the conduct of great public figures (emphasis added)....

- "...[T]he crucial factor is not the intrinsic quality of behavior but the significance of its effect upon our constitutional system or the functioning of our government.
- "...The duty of a president to 'preserve, protect, and defend the Constitution' to the best of his ability includes the duty not to abuse his powers or transgress their limits, nor violate the rights of citizens, such as those guaranteed by the Bill of Rights, and not to act in derogation of powers vested elsewhere by the Constitution.
- "...The facts must be considered as a whole in the context of the office, not in terms of separate or isolated events. Because impeachment of a President is a grave step for the nation, it is to be predicated only upon conduct seriously incompatible with either the constitutional form and principles of our government or the proper performance of constitutional duties of the presidential office."

The findings of this Congressional report ultimately informed the articles of impeachment that were drawn up against President Richard Nixon, which charged him with acting "in a manner contrary to his trust as President and subversive of constitutional government, to the great prejudice of the cause of law and justice and to the manifest injury of the people of the United States."

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Exercise Economics

U.S.-AFRICA SUMMIT

BRICS New Bank Provides A Pathway to Development

by Lawrence K. Freeman

Aug. 11—South Africa's President Jacob Zuma, speaking at the National Press Club on Aug. 4, the first day of President Obama's U.S.-Africa Summit, discussed the importance of the New Development Bank (NDB) initiated at the July 14-16 summit of the BRICS nations (Brazil, Russia, India, China, and South Africa) in Brazil. Contrary to Obama's private-sector-only approach to investment in Africa, the NDB's dedication to lending money to build infrastructure in developing nations, will provide Africa with an alternative institution to finance energy, water, and transportation projects desperately needed throughout the continent. There was a buzz of excitement at the Washington Summit of almost 50 heads of states, as news of the new BRICS bank was brought to the attention of those participating, by both President Zuma and EIR over the course of the week's events.

In his speech at the Press Club luncheon, Zuma spoke directly about the NDB, when asked to compare it to the International Monetary Fund and World Bank. He replied that the two existing banks have not been successful in helping developing countries. Zuma pointed out that unlike these "older institutions," the new BRICS bank and reserve fund come from developing countries. "There is a general consent that the other banks have not been doing their job," he said. "The BRICS bank will have a different approach. And it will avoid the problem of having to bail out the banks." These comments were made in the context of his re-

marks about South Africa's commitment to make poverty "history" for the 16 million living in deplorable conditions in his country.

Immediately after Zuma's remarks, this author stood outside and handed out *EIR*'s feature article from its July 25 issue reporting on the BRICS Summit, "Half of Humanity Launches a New World Economic Order." Over 100 copies were distributed during the course of the summit.

Obama Offers Little to Help Africa

It was known in advance that the United States was not going to provide any new programs at this summit that would materially improve the living conditions for hundreds of millions of Africans living in poverty on less than two dollars per day. When one representative of a leading African nation asked President Obama what he had budgeted for Africa, in terms of what are called "deliverables," the reply was: Nothing.

It was understood by most of the participants, that President Obama needed this conference for his legacy—i.e. that he could say that he was the first American President to convene a U.S.-Africa summit. African leaders were "persuaded," and felt obligated to attend, even though little more than a "photo-op" was expected. The Obama Administration felt pressured by the Africans to respond to China's dramatic increase of trade with Africa, and its aggressive program to build infrastructure on the continent. More than one African

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leader pointed out that China's trade with Africa in 2013 was \$210 billion, while trade with the U.S. was only \$85 billion.

Although President Obama and his State Department have obliquely criticized China's economic dominance in Africa, his anti-Africa National Security Advisor Susan Rice was more blunt, when speaking on Morning Edition of National Public Radio: "Typically, the nature of China's engagement," she said, "is it brings in thousands of Chinese workers and uses Chinese to build roads, build buildings, rather than giving jobs and opportunity and capacity building for Africans, which is a real distinction between the American approach and the Chinese approach. The American approach is not to bring in a bunch of foreigners to take jobs from Africa, but it's actually to build African capacity."

In reality, Obama's approach is to have the U.S. build nothing in Africa, but to convince the private sector to make inadequate investments, and claim credit for aiding the Africans. Obama's Summit has been referred to as a glorified trade mission, and a costly one at that, with each African leader accompanied by a large delegation, whose airplane tickets, accommodations, and travel in D.C., are an enormous expense.

As expected, Obama announced his support for programs from previous administrations: the African Growth and Opportunity Act, established under the President Clinton; President George W. Bush's PEPFAR (President's Emergency Plan for AIDS Relief) program to reduce the spread of HIV-AIDs in Africa through antiretroviral treatment, albeit with reduced funding; and Bush's Millennium Challenge Account, which is a limited program for small-scale infrastructure. Otherwise the President announced at the Summit, \$34 billion in pledges by major U.S. companies for new investment in Africa, although largely unspecified.

Obama's commitment to provide \$110 million per year over five years for military training was the only actual new money authorized to be spent by the U.S. government for Africa. Compared to other countries around the world, the U.S. is doing little to assist Africa, especially in infrastructure, and Obama's fakery to obscure this truth did not go unnoticed by many Africans, both from Africa and those living in the U.S.

Miraculously, Obama conjured up an additional \$12 billion in private investment and loan guarantees for his Power Africa program, which allegedly will provide electricity to 60 million Africans, a far cry from his claim to double access to Africa's 600 million without

electricity. This author's critique of President Obama's "Powerless Africa" initiative was widely read and circulated before and during the Summit, to the delight and agreement of many of those attending (see below).

Obama managed to antagonize and insult the African press attending the Summit, who traveled from all over the U.S. and the world, by keeping them waiting over an hour for his press conference following the Summit, and then only calling on one member of the African press, leading one journalist to ask, "What did we come all this way for?"

Africa Wants and Needs Nuclear Power

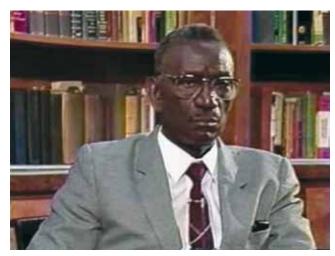
In addition to the concept of the BRICS Development Bank being raised at the Summit, the demand that African nations have nuclear energy as part of their power supply was made as well. This is very important for African countries, which have allowed themselves to be conditioned to believe that they can't have nuclear energy to power their economies because it is too "advanced" for them; that they should be satisfied with less powerful forms of energy, including those that are outright ineffective, such as so-called renewables, like wind and solar energy.

President Zuma, speaking at the U.S. Chamber of Commerce on Aug. 4, described his country's commitment to the future, outlining his support for a South-North rail corridor from Durban, South Africa, to Dar es Salaam, Tanzania, continuing to Cairo, Egypt; and South Africa's intention to spend 840 billion rand over the next three years on infrastructure and energy, including nuclear power. Even though it appears that not everyone in his government is fully committed to nuclear energy, at the luncheon that afternoon, Zuma spoke of the role of nuclear power, and how it can help "solve all of southern Africa's energy problems." He also continued to express South Africa's support for the Grand Inga Dam project in the Democratic Republic of the Congo that could provide over 40,000 megawatts of electrical power to the continent.

Issoufou Mahamadou, the President of Niger, who spoke at the German Marshall Fund Aug. 5, also made a strong case for his country's right to have nuclear energy. In an excellent presentation on how his Sahalean country, 75% desert, intends to reduce food insecurity and eliminate famine, Mahamadou advocated

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^{1.} See David Cherry, "South Africa Bucks British Opposition, Goes Nuclear, *EIR*, July 25, 2014.



Senegalese scholar Cheikh Anta Diop was one of many African leaders who advocated for nuclear energy in the 1960s and 70s.

nuclear energy, telling his audience that it was the least costly next to hydropower, and dismissing solar energy as more expensive.

In response to a question from this author, the President of Niger reiterated his support for nuclear energy, building the East-West railroad, and rehabilitating Lake Chad.

Outstanding African leaders have historically demanded nuclear power. Senegalese scholar Cheikh Anta Diop, in the 1960s and 1970s, advocated for African economies to be powered by nuclear energy, and thermonuclear fusion energy, and wanted to establish training centers for Africans to master these technologies.

Diop wrote in 1978: "However, if that source of energy [fusion] control were to become available, with effective control of thermonuclear reactions, the energy needs of the planet would be answered for a period of a billion years—repeat, 1 billion—years. The future instruments that produce this energy, whether called thermonuclear reactors or tokomaks ... will be fed in their final and truly operational stages by heavy hydrogen, obtained basically through electrolysis of sea water."

He demanded that thermonuclear fusion energy be studied in Africa, calling for the creation of "a pilot fusion center in an appropriate African country, open to all qualified African researchers willing to follow this line of pursuit."

More than a decade earlier, Diop identified both fis-

sion and fusion energy as primary energy sources for Africa, underscoring the potential of fusion: "Once the thermonuclear reaction has become adapted to industry, mankind will without doubt, as scientists foresee, have an abundant new source of energy." In discussing the type of research required in African universities, he put the need for "an institute of nuclear chemistry and physics" at the top of his list of scientific research institutions to be created in Africa.

When asked, in a 1977 interview with *Afriscope*, "What is the mission of culture?" Diop replied, "Survival and creativity. Man must create to survive. To create he must insure his survival." Later, he added, "Man's mission is creation," reflecting his own scientific thought process.

China, a founding member of the BRICS, is today leading the world to the next higher level of energy-flux density with its lunar program to industrially mine the Moon for helium-3, an advanced fuel for fusion energy that is far more powerful than the deuterium-tritium fuel cycle that Diop was studying.

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Documentation

Obama to Africa: We Don't Do Infrastructure

The following statement was distributed by Lawrence Freeman at the Aug. 4-6 U.S.-Africa Leaders Summit.

Aug. 3—Speaking at the Atlantic Council in Washington, D.C. July 31, Linda Thomas-Greenfield, Assistant Secretary of State for African Affairs, made it clear that the United States, as a matter of policy, will not build infrastructure in Africa. She stated that the purpose of President Obama's U.S.-Africa Leaders Summit was to reaffirm the U.S. partnership and friendship with Africa for 50 years, not give out billion-dollar goodies. She said other countries can build infrastructure, but warned Africa to be cautious in their relations with other economic powers.

Without infrastructure there will be no economic development in Africa, which has the largest infrastruc-

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^{2.} All the quotations from Cheikh Anta Diop, are from his book, *Black Africa: The Economic and Cultural Basis for a Federated State*, Africa World Press: Trenton, N.J., 1987.

ture deficit per capita and per square kilometer of any continent. The spreading lethal Ebola virus is itself a marker of the failure to develop healthy economies in Africa. The Ebola outbreak in West Africa is appropriately threatening to become the number one concern at the African Summit. Energy is crucial and indispensable for the development of any country, which is why President Obama's signature policy—Power Africa—is such chicanery.

Africa Needs Electrification

With between 550 and 600 million Africans living in sub-Saharan Africa having no access to electricity—over 50% of the population living in the dark— President Obama's so-called signature policy for Africa, his "Powerless Africa" program, is either an outright fraud, a cruel joke, or done by someone who doesn't know how to simply add and divide. The initiative to generate 8-10,000 megawatts of power over five years, divided among several countries—Nigeria, Liberia, Ghana, Tanzania, Ethiopia, and Kenya—to provide electricity to 20 million additional users, will not double the access to electricity. Presently, Sub-Saharan Africa has about 400-450 million users of electricity, albeit at very low watts per capita. However, this did not prevent President Obama from making false claims of "doubling" twice when he spoke in South Africa in 2013, which his administration has repeated ever since.

The Sub-Saharan African continent generates the least amount of electricity in the world, and has the lowest number of watts per capita as well. Globally the world generates about 5,200 gigawatts (GW) of electricity—that is, 5,200 billion watts of power. Sub-Saharan Africa consumes about 70,000 megawatts (MW) that is 70,000 million watts of power, which gives the Subcontinent less than 1.5% of the world's total. Is it any wonder why it is called the "Dark Continent?" Even if we doubled or tripled Obama's "Powerless Africa" program every five years, Africa would still be in the dark. One blogger estimated that if Africa's total electrical power were shared equally, each household would be able to power one light bulb per day, per person, for 3.5 hours, Obama's program would add 18 minutes to each light bulb.

Take the case of Nigeria. At best, Nigeria generates 4,000 MW of power, not counting several thousands more MW produced by costly household diesel generators, which doesn't change the country's massive

energy deficit. With 177 million people, and at best, 4,000 MW of power, Nigerians average less than 25 watts of energy per capita, and some estimates are as low as 12 watts per capita. For Nigeria to enjoy American standard of energy consumption of 1,400 watts per capita, which they deserve, Nigeria would require 248,000 MW or 248 GW—approximately 60 times its current power generation. And Nigeria's population is expected to increase to 250 million in the next 20 years, thus requiring even more power. Obama's "Powerless Africa," if and when completed, will provide Nigeria with a mere 2,000 MW in five years.

For all of sub-Saharan Africa's nearly 1 billion people to enjoy an American standard would require 1,400,000 MW or 1,400 GW of electrical power. This can only be accomplished with nuclear power, which is the most efficient, cost effective, and most powerful in terms of its energy-flux density.3 That is why South Africa's commitment to build six nuclear power plants, with 9,600 MW of capacity, is exciting for all of Africa. South Africa, which already has the highest energy per capita on the Subcontinent, will be generating an equivalent amount of energy to Obama's total "Powerless Africa," and it will be far more productive than solar energy and wind farms. It doesn't matter that they are renewable; they are too inefficient, too low energy-flux density to power a modern agricultural-industrial economy. Russia has already discussed with South Africa a proposal to build and provide favorable financing for the construction of these nuclear plants.

With nuclear energy, and then fusion energy, Africa will have the energy-flux density to power transportation, to power pumping for irrigation, to construct new waterways, and nuclear power plants, with its energy and high-temperature steam ideal for desalination. Why not start building the equivalent of a new Nile River with desalinated water? We know Egypt and the Horn of Africa need it. With this type of high energy-flux-density program, the people of Africa can finally be freed from the deplorable conditions of life caused by a lack of energy, food, clean water, and sanitation.

Not surprisingly, of the 72 nuclear plants currently under construction worldwide, 47 of them—65%—are in BRICS countries.

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^{3.} Energy-flux density is the organization and power/heat intensity of a form of energy to accomplish work.

Editorial

The Lessons of August 15, 1971

Lyndon LaRouche's first long-range forecast, and the most famous one by far, came in the mid-1960s. As he described it in 1994: "that near or shortly after the middle of the 1960s, we would see the first of a series of major monetary disturbances, leading toward a collapse of the existing Bretton Woods agreements. I forecast that this collapse would see increased looting of what were then termed developing sector nations, and that the breakup of the Bretton Woods agreements would lead rapidly to austerity measures modelled upon those of fascist regimes, in international economic relations and in the U.S. domestic economy."

In conjunction with this forecast, as with all his others, LaRouche laid out a programmatic perspective to overcome the impending disaster—a program of reindustrialization based on a science-driver program led by thermonuclear fusion power. The failure of the world's political leaders to adopt it, and LaRouche's subsequent proposals in that same vein, has brought us to the disastrous condition which billions of the world's population suffer today—and to the threat of thermonuclear war.

The fact that LaRouche's forecast has been so vindicated, should alert any thinking individual to pay very close attention to what he has to say today.

LaRouche has launched a new initiative of the utmost urgency, calling on world governments, most especially including that of the United States, to join with China, Russia, and India in a crash program to develop the Moon, with the intent of mining helium-3. China is leading the way, setting a standard for developing the next stage of mankind's power over the universe, through the use of helium-3 for thermonuclear fusion power. Contrary to idiots in the West who are determined to

"go green," the Chinese leadership has determined to achieve the next level of energy flux-density which mankind as a whole needs to bring the world out of poverty, and on a path to progress as a whole.

"Helium-3 is the greatest power that we on Earth command," LaRouche said on Aug. 10. "China, and its allies India and Russia, are working on realizing the development of that power by mining the Moon, and the only hope for those who want to bring the world out of crisis, is to work with them."

The time has come for mankind to reach agreement on a new standard of economy, which helium-3 represents, LaRouche said. Under the present rules, mankind is basically committing suicide, and we are headed for extinction warfare, triggered by a British Empire which insists on maintaining its levers of control.

The British Empire, and its tool Obama, don't have much going for them. They are hoping to bluff their way through, to get the nations which are now resisting—Russia, China, Argentina, and so forth—to capitulate to their fakery. Most critically, they are also depending on intimidating the American people into capitulating.

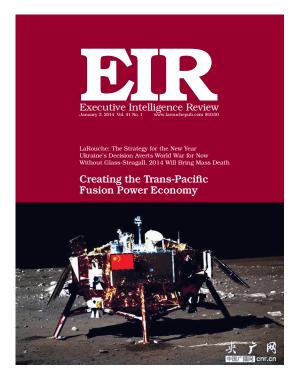
But once Americans and others recognize the power that China and its allies are wielding—the power of helium-3—and get a sense of how that power can solve mankind's problems, the British Empire with its austerity and wars can be dispensed with, as the bluff it is.

LaRouche was right in 1971—and too many people didn't listen. He's right again today, and you still have a choice. It's the helium-3 orientation, or extinction. Rally behind LaRouche's call for action, and win a future worth living!

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