One Year After Chelyabinsk: The Strategic Defense of Earth

by Harley Schlanger

Feb. 16—The Kesha Rogers for Senate campaign sponsored a forum in Houston, Texas, yesterday, on the first anniversary of the asteroid impact over the city of Chelyabinsk, Russia. Rogers is campaigning for the Democratic nomination for Senate (the Texas primary is on March 4).

The invitation to the event described it as "the only public forum addressing this critical issue in the United States of America. This is an open invitation to all members of the scientific community, and the science-minded public: We need to bridge the gap between politics and reality.

EIRNS/Sylvia Spaniolo

Candidate Kesha Rogers addresses the forum in Houston.

"The scientific community knows our nation and planet are unprepared for mitigating any serious threat from extreme space weather, asteroids or comets, and galactic shifts in climate. Instead of heeding this reality, most politicians are making the tragic mistake of continuing to cut NASA's budget while giving away trillions to cover worthless Wall Street debts. Kesha Rogers is currently the only candidate in the United States who is publicly discussing the need for NASA to take up a robust planetary defense program in collaboration with Russia, China, and other nations, and also is taking on those who are blocking this effort.

"It is time to permanently take the lid off scientific progress, and put all of NASA at the front of our national priorities. Everyone knows that space exploration creates the new technologies that improve all other areas of society, and does so at a faster rate than every other field of research. That is why politicians beholden to Wall Street's short-term profit motive have been told to put a lid on it. If we had actually followed through with what President Kennedy envisioned for the future, by today, we already would have developed the technologies we need, to protect Earth from such threats as asteroids, comets, and geomagnetic storms. We would have already ended the tyranny of mere money, controlling human progress."

Why Chelyabinsk?

Kesha Rogers set the tone for the day-long conference in her introductory remarks, in which she addressed the question of why a candidate for Senate is hosting an event to commemorate the asteroid strike on Chelyabinsk, Russia. There are two reasons, she said: one, to reflect on what happened, and what we can do to prevent a future, unexpected strike; and two, to address the broader crisis facing mankind, the danger of nuclear war. As Rogers developed this, it became clear how these two points are related, as collaboration between the United States and Russia, and others, to develop a defense of Earth from future such events, is also the way that nations can end the danger of war, by engaging in pursuit of the common aims of mankind.

This means we must back the initiatives laid out by Lyndon LaRouche, she said, to get rid of Green policies, and we must restore Glass-Steagall at once, as the first step in implementing an American System credit policy. Taking these steps will enable us to return to the optimistic outlook of President John F. Kennedy. My campaign, she said, is showing that the leadership exists to do this, and that we must not be held hostage to Wall Street.

Among the well-wishes to the conference came greetings from Harrison Schmitt (see box), who stressed the importance of the event and its attention to the asteroid discussion. An Apollo 17 astronaut, Schmitt wrote

the book *Return to the Moon*, served in the U.S. Senate, and has undertaken many other leadership tasks.

LPAC-TV

Marsha Freeman

Marsha Freeman, Managing Editor of *21st Century Science & Technology* and Technology Editor of *EIR*, discussed "Krafft Ehricke's Extraterrestrial Imperative," via videoconference. That he could see the future very clearly, was demonstrated in his 1970 book, *The Extraterrestrial Imperative.* She stressed that while the late Krafft Ehricke was an excellent engineer and forward-looking space scientist, he was, most importantly, a visionary. If civilization follows the pathway of no growth, and a "closed world," he wrote, it would lead to geopolitical power politics, extreme poverty, mass starvation, epidemics, ecological crises, and nuclear war—exactly what we face today. A pathway of growth, on the other hand, based upon advancements in science and technology, exemplified by the imperative to explore and develop space, will create an "open world," global industrial revolutions, enlightened education, and extraterrestrial industrialization. Ehricke's first target in this program was our nearest neighbor—the Moon.

The growth pathway, long abandoned by the United States, Freeman said, is now the chosen route for China, as evidenced by its project to explore and develop the resources of the Moon. She reviewed the Chinese history of, and motivation for, exploring the Moon, which began in earnest with the gift of a very small piece of a Moon rock, collected on the Apollo 17 mission by Harrison Schmitt, which was given to China as a gift. She quoted the father of China's lunar program, Ouyang Ziyuan, on the need to survey and catalogue the resources of helium-3 on the Moon, to fuel the fusion power plants of the future.

The next panel featured the need for collaboration by the United States and Russia for the strategic defense of Earth. Kirill Benediktov, a prominent Russian historian and writer, sent greetings to the conference. He is currently a consultant on strategy and program development for the Russian Government's Military-Industrial Commission. The video of his presentation on planetary defense to the Schiller Institute conference in Frankfurt, Germany, last year, was played. In that presentation, he had highlighted the proposal of Russian Deputy Prime Minister Dmitri Rogozin for collaboration on the Strategic Defense of Earth, which he had made before Chelyabinsk. What happened at Chelyabinsk showed that we "flunked the test," and that there will be more such events, because we have only identified 2% of asteroids thus far. Either we develop a systematic strategy, or we face increasing danger, he said.

EIRNS/Stuart Lewis

Ben Deniston

This led into a report by Ben Deniston of the LaRouchePAC Science Team, "Ten Million Chelyabinsks and What To Do About Them." He reiterated the need for strategic cooperation, saying we need "a century perspective," which goes beyond defense of Earth, to develop our planet and beyond. Deniston used a chart that showed the density of asteroids and other objects in our Solar System, to emphasize that there will be other close encounters with these objects, some of which are much larger than the one that hit Chelyabinsk, and much more threatening to civilization. In addressing what can be done, he used the example of how mankind has, at times, managed rivers. Today, facing threats from "rivers of asteroids," we must develop the science to "manage the systems of these rivers of asteroids."

U. of Texas

Dr. Ramón López

The next panel focused on "Space Weather Dynamics" and featured two scientific experts in solar and space physics, Dr. Ramón López, from the University of Texas at Arlington, and Dr. Daniel Baker, Director of the Laboratory for Atmospherics and Space Physics at Colorado University in Boulder. They spoke of the importance of understanding the role of the Sun for Earth, and why electromagnetic events must be studied more aggressively. López emphasized that we must learn to predict space weather (he later said space weather should be part of the weather forecast on local news!), and we must be prepared to deal with it.

Baker made the point that natural hazards, such as those that originate in space, know no national boundaries, and that is why international cooperation is essen-

tial. We are increasingly vulnerable to the effects of "electromagnetic events," such as coronal mass ejections (CMEs), he said. He used the example of a CME in 2012, which fortunately went away from Earth. This should have been a wake-up call, he wrote in a paper at that time. Had this hit Earth, it would have had an impact twice that of the Carrington Event of 1859, and could knock out electrical grids, causing massive devastation.

U. of Colorado

Dr. Daniel Baker

The final presentation, by this author, was titled "How To Pay for It." He opened by saying the question is not "Can we afford it?" but, "Can we afford not to do it?" He explained Lyndon LaRouche's work on physical economy, to show that we can indeed forecast the future. He contrasted Alexander Hamilton's approach to national credit to the "credit" policies that followed the death of President John F. Kennedy. Hamilton's concern was with the future, and how to increase productive value. Today's Wall Street approach to credit produces worthless paper, which is turned into "buying power" for the wealthy, paid for by looting governments and the population. This system is on the verge of a final disintegration, and Glass-Steagall must be implemented at once, to turn it around. As in the case of asteroid strikes, it will be too late to address it after it happens, he said.

A Call to Action

The conference continued with a dinner, then a stirring call to action by Rogers. She again counterposed the intent of Kennedy, in approaching the crises of his time, to the failures of political and institutional leaders today. Given what we have heard from our panelists today, she said, we cannot tolerate the gutlessness and ignorance of our so-called leaders. My campaign is a vehicle for you to act, as a citizen of our republic. With the immediate danger of nuclear war, and a global financial meltdown, there is nothing that should hold you back.

She then called on the panelists to lead a discussion on the lessons of Chelyabinsk.

The questions were very pointed, and provided ample room for deliberation. For example, a question about the value of President Obama's plan to land on an asteroid provoked general hilarity. There was also a question about whether we are entering a "little Ice Age." López quipped that it's better to be warm than cold, and Baker reviewed evidence of decreasing activity of the Sun.

Schlanger discussed the destruction of cognitive thinking and the importance of an education process which recognizes the innate wonder in children, their hunger for real ideas. This provoked an enthusiastic response from those in attendance, including Drs. López and Baker, who emphasized that textbooks are killers of young minds, and young people must be engaged in hands-on science, outside the confines of the present

Apollo 17 Astronaut Schmitt Greets Conference

Greetings to you all. I am sorry that I cannot be with you and join in the exciting discussions I know will take place during this conference.

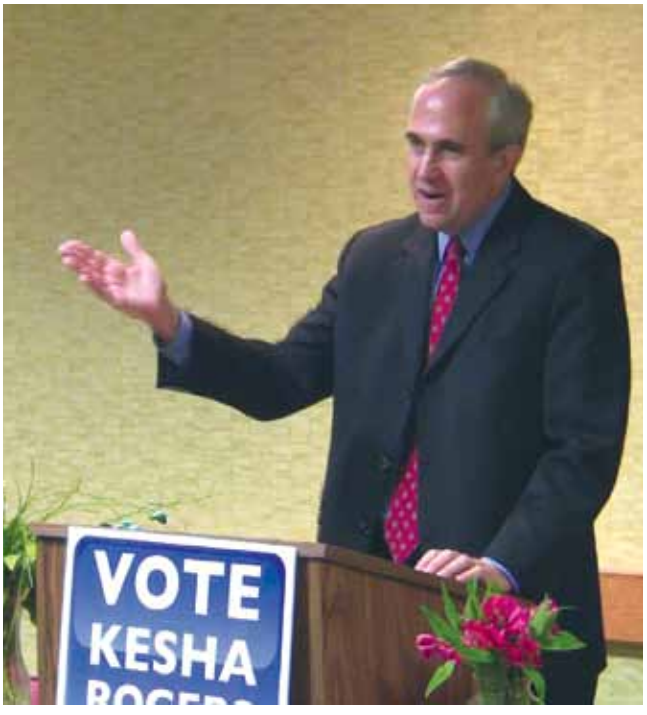
Deep space, from the Moon outward, is the equivalent of Earth's wildernesses of the 1800s. Deep space's enormous influence on lives, science, and the future of humankind has just begun. Lunar science and energy enable a far broader range of human activities, including lunar and Martian settlement, planetary protection from impacts, and a rejuvenation of human freedom.

Good luck in your deliberations.

NASA/Debbie McCallum

Former astronaut and U.S. senator Harrison Smith at NASA's Goddard Space Flight Center, 2009.

Best regards,
Harrison H. Schmitt
Apollo 17 Astronaut
Former U.S. Senator
Author, *Return to the Moon*



LPAC-TV

Harley Schlanger addresses an earlier event. "The question is not 'Can we afford' space exploration, but, 'Can we afford not to do it?'"

classroom approach. López said he has been part of a process developing new books for science education, which are written to feed that curiosity in young people, rather than just provide "answers." Baker lamented how we are losing capabilities because we have moved away from the boldness and adventure required in investigating the frontiers of science. He spoke of his frustration at training young Chinese-American scientists, because they cannot get jobs in the United States, but are offered labs and funds to pursue frontier work in China.

As the discussion continued, the scientists blasted both the cuts in funding, and the process by which research grants are determined. Baker said the best way to get a grant, with peer review, is to "play it safe." This is not science, he said; that requires boldness and innovation. You cannot be afraid that if an idea you have doesn't work, you will be penalized—it is in the unknown, as explorers, that we make breakthroughs.

"NASA used to be about dreams," he added, "about adventure and excitement.... Let the routine things be funded by private industry," while government should fund the most experimental approaches.

López added that he believes there are three categories of knowledge. First, is the "stuff you know"; second is the "stuff you don't know"; and third, and most exciting, is to discover "the stuff you didn't know that you don't know."

In the end, Baker said that once Rogers is elected, he will be the first in line to get some grants, when she expands the space budget.

Greetings from Russia's Kirill Benediktov

Kirill Benediktov is a Russian historian, well-known science-fiction author, political analyst, member of the editorial board of the Terra America website, and regular commentator for the daily Izvestia. He currently serves as a consultant on strategy and program development for the Russian Government's Military-Industrial Commission. He sent these greetings to the Houston conference.

Dear conference participants, dear colleagues and friends,

Exactly one year has passed since the explosion of a meteoroid over Chelyabinsk, once again, reminded mankind of our extreme vulnerability to forces from outer space.

The history of our species has been marked by a number of global catastrophes of outer-space origin. I'll mention just one of them: the disappearance of the Clovis culture, which flourished in North America 14,000 years ago. It is likely that the demise of this culture was linked with the impact or explosion of a large object from outer space, on or above the ice fields in what today is Canada, approximately 12,900 years ago. The strike was so powerful that probable fragments of this celestial body have been located in New Mexico and South Carolina. The unusual form of these fragments—microspherules, nanodiamonds, and fullerenes—has led some to suggest that a large comet or swarm of comet fragments collided with the Earth.

That catastrophe interrupted the development of the American Indian tribes for a long time, but it did not annihilate mankind, because people were scattered across great expanses of the Earth's surface and were not in close communication with each other. Paradoxically enough, today's global, technogenic civilization is more vulnerable and offers a bigger target.

EIRNS/Christopher Lewis

Russia's Kirill Benediktov addressing a Schiller Institute conference in Germany, April 13, 2013.

This problem can be solved, but in order to solve it, we must overcome the profound crisis of mission-definition, of goal-setting, the lack of which has acted as a brake on man's expansion into space since the end of the Cold War.

For four decades, the Soviet Union and the USA fought for leadership in space research. Even though it lost the "Moon race," the USSR maintained its leading positions in the exploration of near-Earth space, rocket design, long-term orbital space stations, and the development of manned space programs.

This period ended with the collapse of the Soviet Union and the loss of its industrial infrastructure, along with a significant portion of the skilled manpower employed in that industry. The space industry plunged into deep crisis, with dramatic reductions in financing for space exploration.

The Lack of Mission Orientation

The simple question, "Why do this?" has blocked the development of cosmonautics, ever since the end of the space race between the USSR and the USA. Not only in Russia, but, importantly, also in the USA, the space program continues to advance only by inertia, since the motivations of the 1960s and 1970s no longer hold any weight.

Without well-conceived long-term plans, the sector is doomed to running in place. The existing capacities, technologies, and financing will continue to be used for emergency objectives or for seeking answers to randomly arising challenges.

This crisis of a lack of mission orientation afflicts not only the Russian space program, but also, to a significant degree, the American. The U.S. space program today is far from having a global meaning or purpose. It suffers from disorderly planning and ad hoc financing. This is less noticeable in the unmanned programs (insofar as robotic missions are rather less expensive, they can achieve tangible results even if the financing is chaotic), but in manned space exploration the crisis is clearly at hand. Even a superficial look at NASA's "constructive criticism" website gives you a sense of the dimensions of this crisis. At the present time, the main objective of the U.S. space program is merely to maintain the sector as a whole, preserving jobs and not reducing employment in the older manufacturing programs. In other words, it chiefly fulfills a social function.

The space programs of India and China may be more mission-oriented. They are, however, structurally (albeit, not in terms of the technologies) at a stage of development corresponding to that of the Soviet and American space programs of the 1960s. Evidently, it is easier to define strategic goals for a national space program in its early stages of development. After achieving a certain level, however, such as the launch and operation of a habitable orbital space station, the goals and missions become vague, leading to a systemic crisis of the sector.

Both the USA and Russia need a clear, simple, and comprehensible mission for their space programs, answering that question of "Why do this?" in a way that is obvious and acceptable for everybody.

We think that the creation of a global early-warning system for the asteroid and comet threat could be at least one such mission. This system could be implemented as a supranational project under the aegis of the United Nations Organization. But the function of driver for the project should be taken on by the two powers whose achievements in space exploration can never by disputed by anyone: the United States and Russia.

I sincerely hope that this conference in Texas will be another step toward the future cooperation of our countries in mastering outer space and ensuring the security of our planet.