

Obama Proposes To Kill Science, Space Exploration, and Your Future

by Marsha Freeman

April 23—For more than a year, the Obama White House has waged warfare against the nation's leading science and exploration capabilities in our space program. Although that fight has centered around the effort to end the nation's human space exploration program, now *every* field of NASA's research is slated for destruction. If the President is not removed from office, the nation's scientific capabilities, essential for our future, will be lost.

Earth-observing satellites, critical to providing the data for understanding and eventually forecasting short-term threats, such as severe weather, volcanic eruptions, and earthquakes, are being shut down, and new projects cancelled. Astronomical observatories to shed light on the effect of long-cycle galactic events that, in the longer term, threaten our continued existence on our planet, are being scrapped.

Planetary exploration probes, which provide a window into the early history of the Solar System, and a comparison to the development of the Earth, will be delayed, or "descoped."

Most critical, the talents of the teams of thousands of skilled technicians, engineers, and scientists who have created a half-century of new frontiers for humanity are being disbanded. Once gone, these capabilities will take years to rebuild.

The White House plan for NASA, released a year ago, proposed to end the Moon/Mars program, and replace NASA's space transportation programs with amateur rocketeers. Increases proposed in the agency's budget were to go for these private efforts, and for a missionless technology development program, taking us on the road to nowhere. That was bad enough. But the FY12 budget plan released by the White House on Feb. 14 proposed a flat budget for NASA, for each of the next five years, eliminating the promised increases.

Then, one month later, the "compromise" the White House made on April 14, with the faction of austerity-driven budget-cutting fanatics elected last November to

Congress, propose to shut down *every* cutting-edge scientific program of the space agency.

About \$250 million from the FY10 funding level has been cut in the Congressional/White House budget deal, for the remaining months of FY11. For next year, the Administration's flat NASA budget, at \$18.7 billion, means more than half-a-billion dollars in cuts from what had been projected for FY12, just six months ago.

It is not the absolute amount of money that is critical. The idiotic argument has been made that NASA "got away lucky" because other Federal agencies' budgets were cut even more. Leaving aside diminished actual buying power, due to hyperinflation, if the budget of the space program is not significantly *increasing*, under the Obama budget, new programs cannot be started. Otherwise, NASA is left with just one insane "option"—to shut down fully functioning spacecraft, stop collecting data and making new discoveries, to make room for new projects.

Without a dramatic and immediate return to a space program which is limited, not by resources, but only by the pace of our scientific breakthroughs, there will be no future. With President Obama removed from the White House, and a return to an economic policy based on the "common aims of mankind," which was the basis for the creation of NASA more than a half century ago, we can start to tackle the challenges ahead.

Looking at Earth With Eyes Closed

There will be "very serious consequences to our ability to do severe storm warning, long-term weather forecasting, search and rescue, and good weather forecasts" for the polar regions, if Joint Polar Satellite System (JPSS) funding is not put back in the budget, National Oceanic and Atmospheric Administration (NOAA) Administrator Dr. Jane Lubchenco told the Congress on April 13.

Polar data is also critical to understand that highly



NASA/Crew of Expedition 22

If Obama is allowed to have his way, NASA's spacefaring program will be eliminated, and 50 years of spectacular achievements will come to an end. Shown: The Space Shuttle Endeavour, whose last flight is scheduled for April 29, was photographed on Feb. 9, 2010: the troposphere (the orange layer), where weather and clouds are generated, with the Stratosphere and Mesosphere above.

dynamic polar region, which helps drive weather and climate, due to its special relationship to the interaction between, at least, the Earth and the Sun.

Lubchenco told members of the Senate Committee on Commerce that the current budget provides no administration support for the JPSS. Already, she stated, even if the needed funds are included in the FY12 budget, for NASA to start to build the satellite for NOAA, there will be a 18-month gap in data collection in polar regions.

Lubchenco further stated that for every dollar that was not spent this year, it will cost \$3-5 more "down the road," to bring the program back up, than it would have been to continue it, because contracts have to be cancelled, and "very skilled people" will be let go. It would cost \$528 million to keep the project on track for the remainder of this year.

Lyndon LaRouche made the point: "Face it! It will never be launched as long as Obama is President!"

In 2010, two high-priority Earth science missions under development were slated for launch in 2017. In the proposed FY12 budget, the White House Office of Management and Budget told NASA to indefinitely "defer" the missions. NASA's Earth Science

Division stands to receive \$1.7 billion less over the next five years, than the agency was expecting six months ago.

The Climate Absolute Radiance and Refractivity Observatory (CLARREO) is a four-satellite constellation, designed to collect extremely precise data on the critical interaction between solar radiation and the Earth. The Deformation, Ecosystem Structure and Dynamics of Ice (DESDynI) mission is critical for understanding Earth's changing geology and climate.

Do Space Science Missions 'Cost Too Much'?

The evil FY11 budget "compromise" passed by Congress on April 14, and signed by the President the following day, virtually cancels the space science missions deemed the highest priority by the scientists who, through the National Research Council of the Academy of Science, prepare decadal recommendations to the space agency.

NASA's Mars Astrobiology Explorer-Cacher (MAX-C) mission, planned for launch in 2018, is unlikely to happen, considering the projected declining budgets for planetary science, NASA reports. The plan was for the European Space Agency to launch ExoMars in 2018, to look for evidence of past life on Mars, and for NASA to launch MAX-C to collect samples of Martian soil, to be brought back to Earth later. Now, ESA and NASA are looking toward redesigning ("de-scoping") both programs, to combine them into one, rather than two spacecraft, reducing the mission goals, and the cost. The National Research Council recommended that NASA pursue MAX-C if it could be reduced from \$3.5 billion to \$2.5 billion. NASA projects it could only spend about \$1.2 billion on the mission.

NASA's next great space observatory, the Webb Space Telescope, which will peer at the universe in the



NASA/Kim Shifflett

The most crushing blow to America's space mission is the disbanding of the teams of scientists, engineers, and others who have produced the magnificent breakthroughs in space science over the past five decades. They are irreplaceable! Shown: A crew at NASA's Kennedy Space Center inspects the STS-135 Raffaello module, to be carried aboard the shuttle Endeavor to the International Space Station.

infrared, as a follow-on to the Hubble Space Telescope, which functioned in the optical range, may be pushed back to a 2018 launch. NASA had hoped to get it into orbit in 2015, but a review of the program last Fall said it needed an extra \$500 million to meet that timetable. That increase is not in the 2011 budget.

NASA has pulled out of two astrophysics experiments that were collaborative with the European Space Agency. The Laser Interferometer Space Antenna (LISA) was to be the first dedicated mission to search for Albert Einstein's gravitational waves. The International X-ray Observatory was designed to be able to look at the universe through dust and gas clouds. LISA would have cost NASA \$1.5 billion over the life of the project, and the IXO, about \$3.1 billion, now deemed too expensive.

The Human Capital

The most devastating blow from Obama's assault on the space program is the disbanding of the teams

of scientists, highly skilled workers, and engineers, who have created the last 50 years of science and technology breakthroughs. These cadre have the developed skills, and the teamwork, which could have been transferred to any follow-on manned space exploration program. But there being none, their skills are in the process of being lost.

The largest single exodus of skilled manpower is the 9,000 Space Shuttle contract workers who are in the process of being laid off at the Kennedy Space Center (KSC). Smaller numbers of contract workers at other NASA centers will also lose their jobs. The high-technology aerospace companies, such as ATK in Utah, which built and

maintained the hardware for the Shuttle program for 30 years, have already started to consolidate and shutter manufacturing facilities.

United Space Alliance (USA), whose workers train the astronauts, prepare Shuttle payloads, and launch and refurbish the orbiters, announced April 15 the details of the next big round of layoffs at KSC in the Shuttle program. After the last mission, scheduled for June, half of the remaining USA workforce, around 2,800 workers, will be gone. In 2009, USA had 10,500 people working in the Shuttle program.

While the gap between the end of the Shuttle program and the availability of a replacement vehicle was written into the Constellation program in 2004 under President Bush, under Obama, there is not to be *any* national human space exploration program.

Adding insult to injury, the White House announced on April 20 that the First Family will be attending the scheduled April 29 lift-off of Space Shuttle Endeavour, at the start of its final mission.