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## Moon Plan to Give U.S. Control Over Energy Sources

By Vladimir Radyuhin

MOSCOW, JAN. 25. The United States is planning to use the Moon as a source of energy fuel that should help it establish ultimate supremacy on the Earth, a Russian newspaper said.

An ambitious programme to build a manned base on the Moon by 2020 unveiled by the U.S. President, George W. Bush, earlier this month was not a re-election gimmick as American and international media described it, but a strategic economically project, the authoritative Izvestia newspaper said.

A lunar base will enable the U.S. to bring back to Earth shiploads of Helium-3, a valuable fuel for thermonuclear reactors, which is abundant on the Moon but practically absent on the Earth. The newspaper quoted academician, Erick Galimov, as saying that a couple of shuttle spacecraft can bring to Earth enough liquified Helium-3 to meet all global energy needs for 12 months.

"If we had a thermonuclear reactor technology, it would be economically more efficient to deliver Helium-3 from the Moon today than generate power from fossil fuels or uranium," said Mr. Galimov, who heads the Institute of Geochemistry and Analytical Chemistry of the Russian Academy of Sciences. "Using Helium-3 in thermonuclear synthesis may prove the best way to meet global energy needs." The paper draws attention to the fact that the 2020 deadline Mr. Bush set for building a lunar base coincides with the expected construction of a thermonuclear reactor and a global energy crisis. With energy consumption in industrially developed countries growing at a rate of 10 per cent a year, thermonuclear power stations may be the only way to overcome an impending energy crux.

"Helium is ideal ecologically-safe fuel for thermonuclear technology," Mr. Galimov said. "The cost of bringing Helium from the Moon will be a fraction of the price of electric power generated today at nuclear plants." The Moon has an estimated 500 million tonnes of Helium-3 trapped in the upper layers of the lunar rock, whereas the Earth may have no more than a few hundred kg of the isotope, which is moreover embedded deep inside our planet.

The Moon colonisation plan announced by Mr. Bush will "enable the U.S. to establish its control of the global energy market 20 years from now and put the rest of the world on its knees as hydrocarbons run out," the daily said.

However, Mr. Galimov believes that Russia can complete with the U.S. in the race for the Moon. "Russia can well afford an economically profitable and inexpensive project to mine Helium-3 on the Moon," the Russian scientist said. "It will cost a mere \$25-30 millions to extract Helium-3 by warming lunar soil and scraping the isotope from the surface with the help of lunar bulldozers."

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