

An American Vision

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My vision for America is a nation which admits the veracity of scientific methods to solve real problems in the real world, including and especially our social, economic, environmental and political problems. My vision for America is a nation which also teaches scientific and engineering principles at the elementary, secondary and high school educational level, and which then exercises the demonstration of those scientific and engineering principles at the national level within our institutions - NOAA and NASA.

My particular vision is for a pair of modern free electron laser (FEL) facilities at the University of Wisconsin (UW WIFEL) and at the Massachusetts Institute of Technology (MIT FEL/Bates Laboratory), to complement our existing light sources, which for well into the future will provide the type of scientific breakthroughs a day we now enjoy with our synchrotron radiation facilities. These breakthroughs in condensed matter physics also demonstrably fuel the national technological engine, and which also thus drives our national economic expansion, an economic expansion which is now necessary to pay off our accumulated social, economic and environmental debts.

My particular vision is for a space colonization program at NASA, which is not the embarrassment to the nation. Reusable, high flight rate, cryogenic hydrogen space flight, and solar powered, low earth orbit, closed ecological life support systems and space stations, will demonstrably benefit directly from the same scientific and engineering breakthroughs delivered by our modern free electron lasers, and will also demonstrably produce those same scientific and technological solutions necessary to solve evolving and severe environmental, economic and social problems which we now face on planet Earth, as a direct result of 500 years of economic expansion - an economic growth which can no longer be limited to planet Earth.

You may review papers I have recently written on these subjects at the URL :

<http://webpages.charter.net/tsiolkovsky/>

You may review the NSF proposals available at the individual FEL websites.

Thank-you for the opportunity to participate in the democratic process.

Thomas Lee Elifritz - Madison Wisconsin, USA - 8/11/2008

Redacted version submitted to <http://change.gov>.