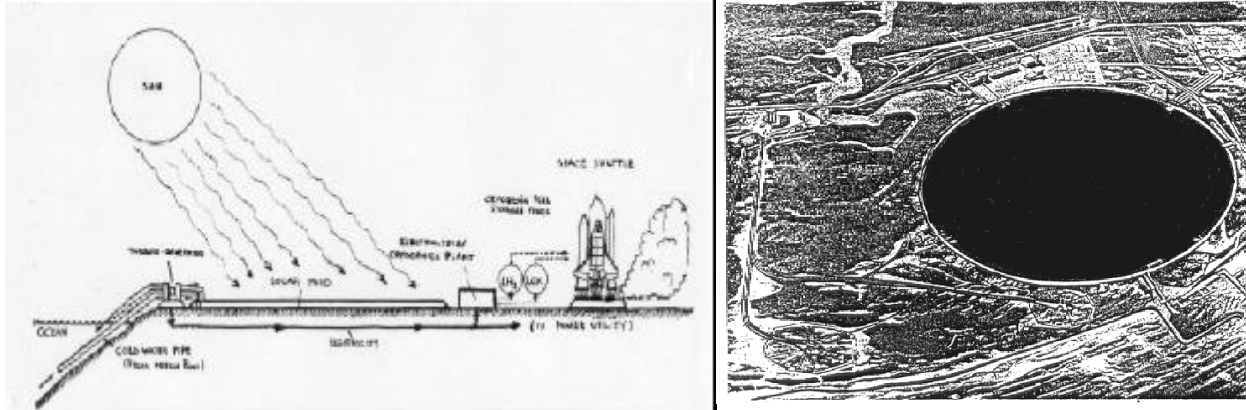


## "A Solar/Hydrogen-Powered Space Shuttle Launch Site"



This energy-producing megastructure consists of a shallow geodesic structure 3-miles in diameter, 3-feet deep, with a surface area of 9.5 square miles, and an annual production capability of 1.85 billion kilowatt-hours.

### ***The Solar/Hydrogen Energy-Equation***, by John Ross (1976)

The universe we now inhabit is believed to be 14.5 billion years old, while Earth is a mere 4 billion. After the first 30-minutes of cosmic time, 75-percent of the matter-energy left over from the "Big Bang" explosion became hydrogen, the most abundant element in the universe. Hydrogen emerged from what was only moments before, an inconceivably dense field of electromagnetic and gravitational energies of immense magnitude. On Earth, hydrogen can be separated or electrolyzed from the awesome one quintillion four hundred thirty trillion (1,430, 000,000,000,000) tons of water (H<sub>2</sub>O) contained in the oceans, by utilizing wind, solar, and ocean thermal energy conversion systems and several thermo-chemical processes. When hydrogen is combusted with oxygen the end product is water vapor, thus hydrogen becomes eternally renewable by returning to the oceans through hydrologic cycles such as rainfall.

NASA rates hydrogen safer than gasoline, and because it is a gaseous or liquid fuel, it can power any existing engines - including jet turbines - which are currently powered by the nonrenewable, highly polluting fossil fuels.

Because hydrogen is a high-grade fuel and exceptional energy storage medium, it is a critical component of a solar energy technology base.

The most energetic systems using hydrogen as fuel are the stars. There are over 200 billion stars in the Milky Way Galaxy, which is just one such star system among the one billion one hundred million observed in the visible universe. Over a period of several hundred years, using the resources within the solar system, a sphere could be constructed around the Sun consisting of individual space habitats each up to 12-miles in diameter and millions of solar power satellites tapping as much as  $8.33 \times 10^{25}$  (to the 25th power) kilowatt-hours of electromagnetic energy daily. This enormous structure (some 93 million miles in radius) will not run out of energy for several billion years!

The energy made available and the opening of space for human habitation from an expanding solar/hydrogen energy-economy will reorganize worldwide resources, technologies, and institutions to provide for 100% of humanity all of its life support needs with an ever improving quality of life. -jr

Received (2) Recommendations from R. Buckminster Fuller - (December 14,1976 and March 23, 1983)

- Learn more about Fuller's work at his web site: <http://www.bfi.org>