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**Ad Astra Rocket Company achieves 2006 milestones, prepares for major advances in 2007.**

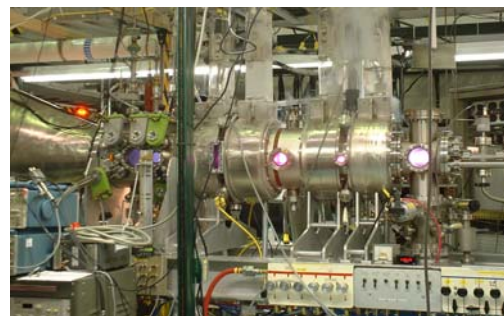
Ad Astra Rocket Company, a new Houston-based company developing the Variable Specific Impulse Magnetoplasma Rocket (VASIMR™) has achieved all its scheduled milestones for 2006 and is now preparing for major advances in 2007.

**2006 MILESTONES**

In 2006, working with the VX-50 VASIMR™ test bed, the company successfully demonstrated efficient operation of the engine with the noble gases Neon and Argon, propellants respectively 1/10 and 1/50 the cost of the traditional Xenon used in most plasma rockets. Intrinsic propellant cost and natural abundance, promises to be an important factor in the large scale economics of future high power plasma rockets. The most recent laboratory data show plasma average exhaust velocity in the range of 40-50km/sec, a value that matches well the optimum requirements for most commercial applications in the Earth Moon environment. The designation VX-50 stands for VASIMR™ experiment operating at 50kw.

In another major milestone, the VX-50 test bed was successfully operated at 50kw with a modified 70kw high power solid state RF transmitter from Nautel Ltd of Halifax N.S., Canada, instead of the much heavier tube amplifier technology employed in the past. Compact and light weight high power RF technology is critical to a successful space application. In addition, the low voltage

requirements of these RF transmitters make them compatible with the voltage output of space-borne solar power arrays, eliminating costly and bulky power transformers and other intermediate power conditioning equipment.



VX-50 VASIMR™ test bed in operation at the Houston facility

In another important achievement, Ad Astra formed a wholly-owned subsidiary, Ad Astra Rocket Company, Costa Rica, which completed construction of a research facility designed to conduct life cycle testing of VASIMR™ components. Construction began in February and was completed in July. Successful plasma operations were achieved on December 13.



Costa Rica Facility, plasma experiment (inset)

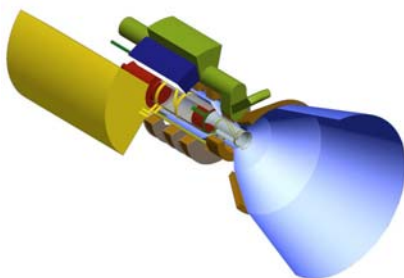
## MAJOR PLANS FOR 2007

Having completed its mission, the VX-50 test bed has now been retired to make way for the more powerful (100kW) VX-100 already in its early phases of test and checkout. This new system will be used in the first half of 2007 to develop the components and critical data set required for the first VASIMR™ flight-like prototype, the 200kw class superconducting VX-200, which will be operating by the end of 2007.



New VX-100 test bed assembly, Houston Facility

The VX-200 is considered by company officials to be the last step before construction of the VF (for VASIMR™ flight) series of two flight engines, planned to be initiated in early 2008: VF-200-1 and VF-200-2. Space testing of these engines is planned to start in 2011.



VX-200 prototype concept

## THE COMPANY

Ad Astra Rocket Company is a privately-owned Delaware Corporation, established January 14, 2005 to commercialize the technology of the VASIMR™, a plasma propulsion system, originally developed by NASA, with potential to support an emerging in-space transportation market. The company has its main laboratory and corporate headquarters at the Johnson Space Center in Houston Texas, USA. Ad

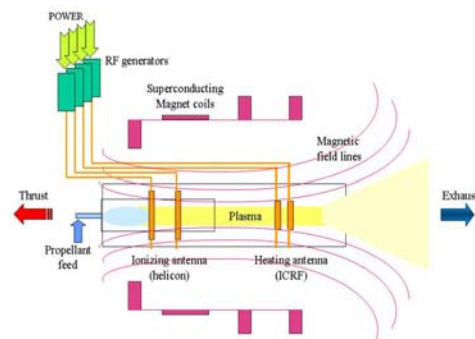
Astra also owns and operates Ad Astra Rocket Company, Costa Rica, a supporting research and development subsidiary in Guanacaste, Costa Rica.

## COMPANY HISTORY

Ad Astra was founded by former NASA astronaut and rocket scientist Franklin R. Chang Díaz. Ad Astra has, through a privatization agreement with NASA, an exclusive license to the original VASIMR™ patents. However, in the last year, Ad Astra has added major improvements to these patents in the form of new company-owned intellectual property.

## THE TECHNOLOGY

The VASIMR™ works with plasma, a very hot gas at temperatures close to the interior of the sun. Plasmas are electrically charged fluids that can be heated to these extreme temperatures by radio waves and controlled and guided by strong magnetic fields. The magnetic field also insulates the hot gas from any nearby structure; hence temperatures well beyond the melting point of materials can be achieved.



Schematic overview of the VASIMR™ system

In rocket propulsion, the higher the temperature of the exhaust gases, the higher their velocity and hence the higher their fuel efficiency. Plasma rockets feature exhaust velocities far above those achievable by their chemical cousins; so their fuel consumption is extremely low.