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Ad Astra Rocket Company reaches
important design review milestone.

[Houston, TX For immediate release] – After more than a year of planning and preparation, a team of Ad Astra engineers and physicists, along with NASA engineers participating as part of a technical interchange, completed the company's first formal preliminary design review (PDR) of the VF-200 engine. The 200 kW “proto-flight” is the company's first engine planned to be tested in space. The review was conducted on Wednesday, June 26, 2013 at Ad Astra's research facility near Houston, TX.

The PDR incorporates the collective engineering knowledge gained over several years from the VX-200 experimental program as well as multiple conceptual design studies carried out by the Ad Astra team. All major VF-200 subsystems were reviewed, with special focus being placed on the thermal steady-state rocket core design. The thermal steady state – the capability of the rocket to maintain a stable temperature for extended periods of time – is to be initially tested in early 2014 with long-duration plasma firings, using Ad Astra's existing facilities and the VX-200SS (steady state) device. The VX-200SS is a modified version of the VX-200, and it is currently under construction at Ad Astra's Texas facility.

The PDR is the first of a sequence of established design milestones and design reviews of the “proto-flight” hardware at increasing levels of detail. Successful completion of the design and test plans developed in this process will lead to the next, critical design process beginning in mid-2014. During Wednesday's review, all of the key subsystems of the VF-200 engine and their respective interfaces were presented, defined and integrated in a revision-tracking documentation tree, which will become the

formal repository of all the design data for the system. The documentation tree has been developed to capture the design specifications, program management, safety, and reliability aspects of the system. Ad Astra has been working closely with the NASA team on safety and reliability with respect to general spaceflight design as well as testing on the International Space Station (ISS).

“The team has worked relentlessly for many months to achieve this important milestone. We are proud of their performance and commitment to excellence” said Dr. Mark D. Carter, Ad Astra's Senior Vice President for Technology Development and Chairman of the review team. “It is an important step forward in our journey to a space demonstration” said Dr. Franklin Chang Díaz, Ad Astra's President and Chief Executive Officer. “I congratulate the team on this achievement” he added.

ABOUT AD ASTRA

Ad Astra Rocket Company, a US, Delaware Corporation, established in 2005 and domiciled in Texas, is the developer of the VASIMR[®] engine, an advanced plasma space propulsion system aimed at the emerging in-space transportation market. Ad Astra also owns and operates Ad Astra Servicios Energéticos y Ambientales (AASEA) and Ad Astra Rocket Company, Costa Rica, respectively supporting research and development subsidiaries in the US and Guanacaste, Costa Rica. Through its subsidiaries, the company also develops earthbound high technology applications in renewable energy, advanced manufacturing and applied physics. Ad Astra has its main laboratory and corporate headquarters at 141 W. Bay Area Boulevard in Webster, Texas, USA, about two miles from the NASA Johnson Space Center.