Boeing 'Can-Do' Spirit of Apollo Continues to Deep Space

In 1969, the Apollo program opened a new era in human history by placing Apollo 11 Astronauts Neil Armstrong and Buzz Aldrin on the surface of the moon. It also gave the world a preview of today's Boeing [NYSE: BA].

With the exception of the Grumman-built Lunar Module, nearly all of the Apollo spacecraft and launch vehicle were developed and built by companies that would later form Boeing. Boeing and its heritage companies played critically important roles in the successes of the Apollo program, as well as Mercury and Gemini.

"Without those contributions, there would have been no Moon landing, and the world we have known for the past 35 years would have been very, very different," said Mike Mott, vice president and general manager of NASA Systems.

"We built on that heritage with our contributions to Skylab, Space Shuttle and International Space Station programs. We now turn our sights to the promise and potential of a Moon colony, and trips to Mars through the Vision for Space Exploration."

The Company is now looking to its roots as it begins the challenge of returning to the moon as part of the Vision for Space Exploration, which calls for returning the space shuttle to flight and completing the ISS before venturing back to the moon as well as a future manned mission to Mars.

After creating a new Space Exploration Systems office in Washington, D.C., Boeing responded to a NASA Office of Exploration Systems Request for Information (RFI) with 119 technical papers and two proposals for Broad Agency Announcements (BAA), which are research announcements for the Crew Exploration and Refinement (CE&R), and Hubble Space Telescope Servicing Mission. NASA will also issue additional BAAs on other key technologies needed for the vision and is expected to announce multiple BAA awards to industry in September or October.

The CE&R BAA solicited ideas on p reliminary concepts for human lunar exploration and the Crew Exploration Vehicle (CEV). NASA plans to issue a CEV Request for Proposal in January with proposals due in April and contract award by June 2005.

As NASA did when it laid the groundwork for the Apollo missions with the Gemini and Mercury programs the agency is using a spiral development approach.

"Spiral development is an evolutionary acquisition approach where each succeeding spiral builds on the capabilities delivered by the preceding spirals,"; said Chuck Allen, vice president and program manager of Space Exploration Systems. "The first spiral for the CEV is to get humans into low earth orbit while the second is to send humans back to the moon."

Unlike the Apollo program's large budget, the CEV acquisition approach will be a "go as you can pay" approach that will be sustainable and affordable with only modest increases in NASA';s overall budget, which is only .7 percent of the total federal budget.

In designing the systems of systems approach for the Vision for Space Exploration, Boeing will explore new concepts while considering Apollo's successful "rendezvous and docking" approach to landing on the moon.

Mott says the technologies and systems that will fulfill the promise of our Nation's space exploration goals will cause us to stretch and grow in our ability to develop and manage a complex systems-of-systems enterprise, much like they did during Apollo.

"In the end," he said, "the common element of success will be -- as it was in the case of Apollo -- the ingenuity and commitment of people to make it happen and the courage of leaders to envision a future beyond what we know today."

For more information about the vision or Apollo 11, visit the following Boeing web sites: Space Exploration Systems or Apollo 11 35th Anniversay.

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