Boeing and NASA Design Oxygen-Saving Equipment for ISS

Boeing (NYSE:BA) has developed an innovative system for the International Space Station (ISS) that will save precious oxygen and prevent unnecessary wear and tear on vital life-support systems within the orbiting laboratory. The Recharge Oxygen Orifice Bypass Assembly (ROOBA). allows for Extravehicular Activity (EVA) crewmembers, spacewalkers, to use Space Shuttle oxygen resources during EVA preparation activities without having to rely solely on Station oxygen. ROOBA will also prolong the life of key system components like the ISS compressor.

ROOBA saves oxygen with two hoses installed between the Quest airlock and Shuttle Orbiter allowing ISS crewmembers to directly use the oxygen from the Shuttle Orbiter tanks. ROOBA was delivered on STS-114 aboard the Space Shuttle Discovery and Expedition 12 Commander Bill McArthur is scheduled to install ROOBA Jan. 12.. The system will be tested for leaks for the first time during the next mission, STS-121.

"On orbit hundreds of miles above earth, conserving consumables like oxygen is a big deal, and it makes sense to consume oxygen from the Shuttle Orbiter and only use ISS oxygen when the Orbiter is not there,"said Dan Leonard, an atmospheric and control subsystem lead in Houston and the primary designer of ROOBA."ROOBA is a great modification for ISS."

Boeing proposed the original project about three years ago to conserve logistics aboard the ISS. ROOBA was built and tested at Boeing's Marshall Space Flight Center facilities in Huntsville, Ala.

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For further information:
Ed Memi
NASA Systems
office: (281) 226-4029
edmund.g.memi@boeing.com