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Aurora Plays Key Role in Zero Robotics Competition Utilizing SPHERES on ISS

Cambridge, MA, January 23, 2012 – The innovative Synchronized Position Hold Engage Reorient Experimental Satellites (SPHERES) constellation developed by MIT and Aurora Flight Sciences was utilized in the Zero Robotics international student competition held today in space aboard the International Space Station (ISS) and here on Earth at the Massachusetts Institute of Technology in Cambridge, Massachusetts.

Zero Robotics is educational outreach activity jointly developed by MIT, Aurora and TopCoder to enable teams of high school students from around the world to compete against each other using the SPHERES satellites in space. Over 130 teams from the United States and Europe participated in the competition over the last few months, with twelve teams selected for today's final competition. Both NASA and DARPA funded the Zero Robotics competition under their STEM (Science Technology Engineering and Mathematics) education initiatives.

The student teams were able to see their software operate the SPHERES robotic spacecraft in a real time video downlink from the ISS, which was also broadcast over NASA TV. NASA astronaut Don Pettit participated in Zero Robotics competition from earth orbit. The winning team was Alliance Rocket with River Hill High School (Clarksville, MD), Storming Robots (Branchburg, NJ), and Rockledge High School (Rockledge, FL).

Launched in 2006, the SPHERES satellite test bed was jointly developed by Aurora Flight Sciences and the MIT Space Systems Laboratory with funding from DARPA and NASA. Aurora's Research and Development Center in Cambridge designed, fabricated and tested all the hardware for SPHERES and its follow-on programs. Aurora develops software for SPHERES and helps operate the facility on the ISS.

SPHERES are used to test and develop software algorithms and procedures that will be used by future constellations of satellites for formation flight, docking, and proximity operations. SPHERES have been used to support numerous NASA and DoD programs, including F6 and InSPIRE, both sponsored by DARPA. It is the only facility in existence where small satellite technology can be tested under long-term microgravity conditions.

"SPHERES are an excellent example of an innovative use of the International Space Station to perform cutting edge research that cannot be done anywhere else," said Aurora's Vice President John Tylko. "We are thrilled with its new role to inspire and motivate the next generation of engineers and scientists."

About Aurora Flight Sciences

Aurora Flight Sciences designs and builds advanced aerospace vehicles and related technology components for commercial and military applications. Aurora is headquartered in Manassas, VA; operates production plants in Bridgeport, WV and Columbus, MS; and a Research and Development Center in

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