

HUMAN SPACEFLIGHT SYMPOSIUM (B3)
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BLUE DOT – SHAPING THE FUTURE: GERMANY ON THE ISS

Abstract

The International Space Station (ISS) celebrated its 15th anniversary on 20 November 2013. The ISS is operated by the space agencies of the United States of America, the Russian Federation, Canada, Japan, and the European Space Agency (ESA). Eleven of its member states fund and take actively part in ESA's ISS programme. Germany participated from the beginning and is the strongest European contributor within the space station programme. Two German ESA astronauts have visited the orbital laboratory. During ISS Expeditions 13 & 14 Thomas Reiter served a 6-month tour of duty on ISS in 2006. Astronaut Hans Schlegel flew aboard the U.S. Space Shuttle mission STS-122 in 2008 which delivered the European built Columbus laboratory module to ISS. On his 14-day mission Mr Schlegel helped to dock Columbus with the orbital outpost and to prepare the laboratory module for regular operations. German involvement in the ISS programme is continuing to remain strong, particular in the scientific utilization, the production of Automated Transfer Vehicles (ATV) and the operations of the Columbus Control Center. In May 2014 the German ESA astronaut Alexander Gerst, a member of ESA's 2009 astronaut class, will launch to ISS on a Russian Soyuz rocket. For about five months he will work and live on ISS. The third mission of a German ESA astronaut to the ISS not only offers the opportunity to advance German scientific utilization of the station, but also provides the opportunity to create high visibility of German participation in the ISS programme to citizens, policy makers, and commercial players that are not yet involved in the utilization of space. The name of the mission, Blue Dot, derives from a quote of the famous US astronomer Carl Sagan who linked that phrase to a picture of Earth taken by the space probe voyager from millions of kilometres away. It shows our planet as a small and fragile point in space that needs protection. Alexander Gerst's mission and the accompanying activities of DLR will address this theme: Doing research in space for the benefits of the people on Earth and for the protection of our planet. Educational activities during the mission are focused on motivating and inspiring the next generation for science, technology, and our precious and fragile planet. This paper will provide details about these activities and it will give an overview about German scientific research on ISS during the Blue Dot mission.