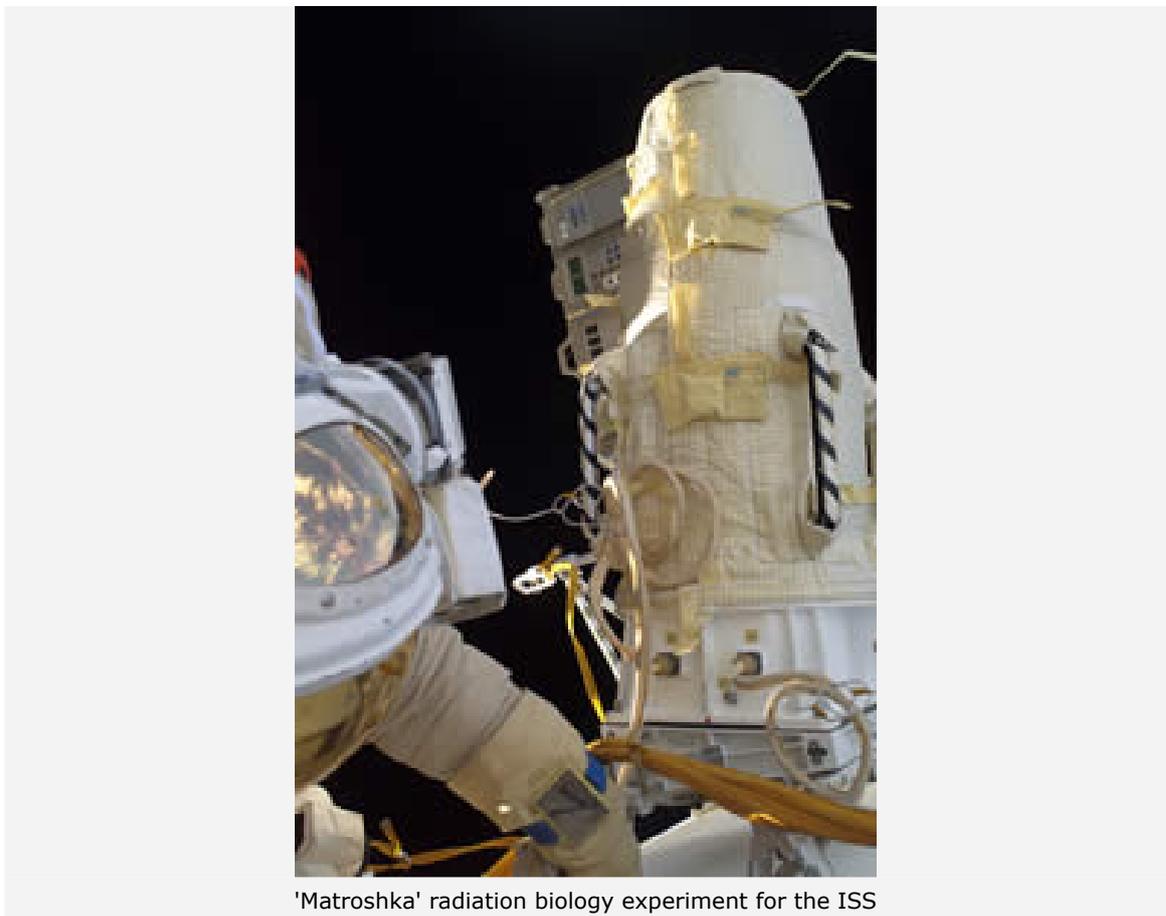


**News Archive 2007**

**DLR's virtual control room now features data from the ISS's MATROSHKA experiment**

*18 August 2006*



'Matroshka' radiation biology experiment for the ISS

DLR's 'Virtual Control Room' has been online since late 2005; until now, users have been able to keep up-to-date with the latest live data from the Rosetta and Mars Exploration Rover missions straight from the control rooms of the German Aerospace Center's (DLR) Microgravity User Support Centre (MUSC). A third 'control room' has now been added, enabling users to access current measurement data from the Matroshka experiment onboard the International Space Station, an experiment which measures the radiation level both inside and outside the ISS.

Matroshka was transported to the ISS in January 2004. During the first exposure phase, the radiation level was measured during the period February 2004 to August 2005. As part of the European Astrolab mission, Thomas Reiter will dismantle Matroshka's radiation detectors in the autumn of 2006 and fit new detectors.

The amount of radiation in space ranks alongside low gravity as a limiting factor for any future long-term manned missions. Every space nation therefore is keen to determine accurately the level of radiation to which astronauts and cosmonauts are exposed.

The Matroshka project was developed by the Radiation Biology Department of the DLR Institute for Aerospace Medicine on behalf of the European Space Agency (ESA), and it involves measuring the radiation exposure of astronauts and cosmonauts during external activities and inside the ISS. By measuring the radiation dose received by astronauts both inside and outside the ISS, it is possible to gauge the risk posed by cosmic radiation to the human body.

Matroshka embodies man and machine in equal measure. A dummy, exactly the same size as the upper half of the human body, is equipped with over 6000 passive and seven active detectors to measure radiation exposure. Involving a total of 19 international partners led by DLR, Matroshka is the biggest and most sophisticated experiment ever carried out to measure radiation exposure and the risk of radiation for humans in space.

The participants include the American space agency NASA, the Japanese space agency JAXA, the Institute for Biomedical Problems (IMBP) in Moscow and universities in Germany, Austria, Poland, the UK, Ireland, Hungary, Japan and the USA.

The 'Virtual Control Room' gives users the opportunity to be part of the Matroshka experiment. The first measurement data relating to the astronauts' and cosmonauts' radiation exposure are already accessible. These will be continually updated and later will be made directly available online almost in real time.

<http://www.dlr.de/kontrollraum/index.htm>

### **Contact**

#### **DLR Corporate Communications**

Tel: +49 2203 601-2116

Fax: +49 2203 601-3249

E-Mail: [kommunikation@dlr.de](mailto:kommunikation@dlr.de)

#### **Jerzy Zywicki**

German Aerospace Center

Space Operations and Astronaut Training

Tel: +49 2203 601-3562

Fax: +49 2203 61471

E-Mail: [Jerzy.Zywicki@dlr.de](mailto:Jerzy.Zywicki@dlr.de)

#### **Dr. Thomas Berger**

German Aerospace Center

Institute of Aerospace Medicine, Radiation Biology

Tel: +49 2203 601-3135

Fax: +49 2203 619 70

E-Mail: [thomas.berger@dlr.de](mailto:thomas.berger@dlr.de)

---

*Contact details for image and video enquiries as well as information regarding DLR's terms of use can be found on the DLR portal imprint.*