

# Press Information

Euskirchen,  
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## **Fraunhofer INT at the ILA 2010 Space Weather and Detecting Nuclear Material**

**On the Northrhine-Westfalia stand in Hall 8a, the Fraunhofer-Institute for Technological Trend Analysis INT is presenting solutions for the aerospace industry. The focus is on the threat that space weather poses to satellites and high-flying aircraft, and the detection of nuclear material at airports and borders.**

Space weather is being demonstrated with the help of a simulator reproducing the cobalt-60 irradiation facility which is part of the experimental set-up in INT's laboratory area. This simulates a major part of space weather, a phenomenon which also occurs in local Earth orbit. Satellites and high-altitude aircraft are repeatedly exposed, and this can negatively affect avionics. To improve protection mechanisms, INT tests the sensitivity of various electronic components to all radiation types relevant to space weather.

A further security field is the problem of nuclear material smuggling. INT is developing and testing various systems that can detect radioactive and nuclear material. One such system is the portal monitor that underwent further development at INT, tailor-made for use at airports and border-crossing points.

Another major task for INT is technology foresight and its relevance for state and industrial planners. This supports planners in the strategic alignment of their technology portfolios or in recognizing other relevant implications in technological development. As well as a horizontal overview of developments in all innovative technologies, INT has access to expertise on national and international research processes and structures.

The Institute is also working on both the effect of electromagnetic fields and interference on equipment and systems, researching appropriate protection systems. For this purpose, INT has its own comprehensive, high-performance field simulation facilities on location.

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