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The Atmosphere-Space Interactions Monitor (ASIM) for the International Space Station

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The Atmosphere-Space Interactions Monitor (ASIM) is an instrument suite for the external pallets on the European Columbus module on the International Space Station. The instruments will look at the earth's atmosphere to study thunderstorms and related effects on the upper atmosphere. The instruments include 6 cameras, 6 photometers and one X- and gamma-ray detector. The instruments are designed to capture transient luminous emissions (sprite, jets and elves) and terrestrial gamma-ray flashes in the atmosphere above thunderstorms. In addition, the instruments will be used for studies of cloud properties, severe storms and interactions of forest fire smoke, volcanic eruptions and dust storms with the atmosphere. The payload is developed by the ESA Human Spaceflight and Exploration Directorate and is scheduled for launch in 2012. The talk will present an overview of the mission and European efforts to field instrumentation on ground for simultaneous measurements of complementary important parameters.