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AMS experiment marks one year in space

Geneva, 25 July 2012. CERN¹ today marked the Alpha Magnetic Spectrometer's first year in space with a visit from the crew of the shuttle mission, STS-134, that successfully delivered AMS to the International Space Station (ISS) just over a year ago. Launched on 16 May last year, the detector was already sending data back to Earth by 19 May, and since then, some 17 billion cosmic-ray events have been collected. Data are received by NASA in Houston, and then relayed to the AMS Payload Operations Control Centre (POCC) at CERN for analysis. A second POCC has recently been inaugurated in Taipei.

"The AMS detector has so far achieved everything we expected of it," said Nobel laureate and AMS spokesperson Samuel Ting. *"That's a great credit to the team that put the detector together, and the team that installed it on the ISS. We're honoured to have them here today to celebrate AMS's first year in space."*

The STS-134 mission was the last flight for space shuttle *Endeavour*, crewed by commander Mark Kelly, pilot Gregory H. Johnson and mission specialists Michael Fincke, Greg Chamitoff, Andrew Feustel and European Space Agency (ESA) astronaut Roberto Vittori. The AMS detector's first year in space has been a learning curve: data have been used to calibrate the detector and fully understand its performance in the extreme thermal conditions encountered in space.

"Among AMS's achievements is that for the first time, we've been able to identify electrons with energies exceeding 1 TeV before they enter the atmosphere," said Ting. *"This holds out great promise for the AMS research programme that's now getting underway."*

Kelly, along with Ting, CERN Director-General Rolf Heuer and ESA Director for Science Alvaro Giménez Cañete held a press conference at the AMS POCC before a tree-planting ceremony at which a commemorative plaque was unveiled in the lawn outside the POCC. In the afternoon, the astronauts will give a presentation for over 200 undergraduate summer students from 71 nations who are currently at CERN to get a taste of life in research.

"It's a real privilege to visit CERN today, and we're proud to have played a part in launching the AMS experiment's fascinating research programme," said Kelly. *"Meeting some of the young summer students who represent the future of science and engineering was a highlight."*

Find out more:

- [The Alpha Magnetic Spectrometer](#)
- [The International Space Station](#)
- [Space shuttle mission STS-134](#)
- [See the AMS assembly area at CERN \(interactive panoramic image\)](#)
- [NASA: How long would it take to make an AMS? \(video\)](#)

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1.CERN, the European Organization for Nuclear Research, is the world's leading laboratory for particle physics. It has its headquarters in Geneva. At present, its member states are Austria, Belgium, Bulgaria, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, the Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom. Romania is a candidate for accession. Israel and Serbia are associate members in the pre-stage to membership. India, Japan, the Russian Federation, the United States of America, Turkey, the European Commission and UNESCO have observer status.

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