

## **European cargo freighter separates from** rocket

June 6 2013

Europe's heaviest-ever cargo carrier to the International Space Station successfully separated from its rocket launcher an hour after liftoff on Wednesday to start a 10-day journey to the International Space Station (ISS).

The Automated Transfer Vehicle (ATV) Albert Einstein was rocketed into space from Europe's spaceport in Kourou, French Guiana, on an <u>Ariane 5</u> launcher at 6:52:11 pm local time (21:52:11 GMT).

It separated as planned on reaching an altitude of 260 kilometres (160 miles).

"ATV Albert Einstein has separated from our launcher," Stephane Israel, chief executive of satellite launch firm Arianespace announced at the control centre in Kourou.

The ATV-4 is ferrying a record cargo of 6.6 tonnes to the ISS—food, fuel, water, oxygen, science experiments and special treats for the orbiting crew.

The robot freighter must now deploy its four energy-generating solar panels to start its <u>autonomous navigation</u>, guided by starlight, to the space station.

It is set to dock with the ISS on June 15 at an altitude of 400 kilometres (250 miles) above the planet—at a speed of some 28,000 kilometres



(18,000 miles) per hour.

At nearly 20.2 tonnes, the fourth and penultimate cargo delivery of the European Space Agency (ESA) to the ISS was the heaviest spacecraft ever launched by an Ariane rocket.

The unmanned vessel is the size of a double-decker bus—10 metres (33 feet) long and 4.5 metres (15 feet) in diameter.

One of its key functions will be to boost the ISS, constantly falling towards Earth due to atmospheric resistance, back into a higher orbit.

It can also push the ISS out of the way of oncoming space debris.

After completing its mission, the ATV-4 will undock from the ISS in October filled with about six tonnes of garbage and human waste, and burn up over the Pacific.

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