Europe launches third robot freighter to space station

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In this NASA handout image from February 16, Russian cosmonauts Oleg Kononenko (L) and Anton Shkaplerov, work on the International Space Station (ISS). An automated craft laden with supplies for the ISS headed into space on Friday in the heaviest launch ever undertaken by Europe.

An automated craft laden with supplies for the International Space Station (ISS) headed into space on Friday in the heaviest launch ever undertaken by Europe.

The 20-tonne vessel, named after 20th-century Italian physicist, Edoardo Amaldi, blasted off atop a heavyweight version of the Ariane 5 launcher at 01:34 am (0434 GMT) from the launchpad in French Guiana.

"Mission accomplished," Jean-Yves Gall, the head of Arianespace satellite launch operator, said shortly after lift-off.

About an hour later the vessel separated from the launcher and went its orbit flightpath in what Gall said was picture perfect execution.

The director general of the European Space Agency (ESA) said: "It is not yet a success for the ESA, just the start of a very long trip of the Edoardo Amaldi into space. But it's a good start."

"There will be other critical steps... in particular the docking with the ISS during the night of March 28 to 29," he said, adding that the operation will be officially over when the craft re-enters the Earth's atmosphere in five months.

The unmanned vehicle is carrying its cargo to the six astronauts currently at the space station: Oleg Kononenko, Anton Shkaplerov and Anatoli Ivanishin of Russia; US astronauts Dan Burbank and Don Pettit; and Andre Kuipers of the Netherlands.

The station, 400 kilometres (250 miles) above the Earth, has been occupied continuously since 2000.

Weighing 777 tonnes before launch, the mission is the heaviest in the history of the European Space Agency, the ESA said.

It is the third freighter, known as an Automated Transfer Vehicle (ATV), to be sent to the ISS under Europe's contract with the the space station project.

The size of a London double-decker bus, the Edoardo Amaldi carries a load of 6.6 tonnes, the biggest of Europe's three replenishment missions so far, and three times more than Russia's Progress, which also supplies the ISS.

Cargo includes oxygen, water, food, clothing, toiletries, medical

supplies, spare parts and experiments, according to the European aerospace firm Astrium, which led the consortium to make the craft.

After being placed in orbit, the ATV is designed to navigate its way to the ISS by starlight and dock with it automatically.

The supply ship will be moored there for six months, providing extra room for its astronauts and occasional boosts to the station, using its onboard engines to rectify the ISS's orbital decay.

Laden with rubbish, the craft will then detach and burn up in a controlled destruction over the southern Pacific.

The two previous ATVs were the Jules Verne, launched in 2008, and the Johannes Kepler, whose one-way mission took place in 2011.

The last ATVs in the contract, named after Albert Einstein and Belgian physicist Georges Lemaitre, are scheduled for launch in 2013 and 2014 respectively.