

EUROPEAN SPACE AGENCY

HUMAN SPACEFLIGHT, MICROGRAVITY AND EXPLORATION
PROGRAMME BOARD

Proposal for the naming of the ATV-4

Summary

The attached document presents the proposal to name the upcoming fourth mission of the Automated Transfer Vehicle (ATV-4) based on a sound and timely suggestion made by the Swiss Space Office.

The document also provides the rationale for adopting the proposed name.

Required action

Delegations are invited to take note of the attached proposal.

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1. Introduction

After the spectacular and flawless mission of ESA's first Automated Transfer Vehicle (ATV-1) "Jules Verne", the recent successful launch of ATV-2 "Johannes Kepler", the development and integration is nearing completion for the ATV-3 "Edoardo Amaldi" which is slated for launch in 2012.

The ATV spacecrafts are key in the International Space Station's logistics and operations and they are an excellent demonstration of Europe's capability in space infrastructure for human spaceflight and exploration. As such the ATVs have a high visibility both within Europe and on the international scene and they embody Europe's inclination for science and technology as well as its ingenuity and vision.

Science, technology and research is rooted in European history and has been a driver for its development and current wealth and living standards.

Similarly, human spaceflight and exploration is to be regarded as a driver for research and development and for innovation in support of Europe's sustainable growth and enrichment of its human capital. There is, therefore, a thread between European scientists and visionary intellectuals, and today's successes in human spaceflight and exploration.

This thread was made evident when it was decided to name the first ATV after the visionary French science-fiction writer Jules Verne, the second ATV after the German mathematician, astronomer and astrologer Johannes Kepler and the third ATV after the Italian physicist Edoardo Amaldi.

The ATV spacecrafts are a pride to Europe and to the ESA Member States who support their development and operations as well as to their national industry that builds them. It is therefore important to associate the names of the ATVs with historical characters who are recognisable at both European level and international level.

2. Proposal for a name for ATV-4

Taking the above into account, a proposal stand out among all those considered. This proposal originates from the Swiss Space Office which has proposed to name the ATV-4 after the German-Swiss-American physicist:

Albert Einstein

A large enthusiastic support is announced for this name throughout Europe. The originators of the proposal recall that Albert Einstein is considered as one of the greatest scientists and intellectuals of all times. They highlight his famous contributions to modern physics on the theory of relativity, whilst contributing also significantly to many fields of physics, including thermodynamics, quantum theory and cosmology. They also underscore that Einstein published philosophical essays and expressed himself on religious and political questions.

Brief biography:

- Born 14 March 1879 in Ulm (Germany), died 18 April 1955 in Princeton (USA).
- Citizenships: Switzerland, Austria, Germany, USA.
- Education in Italy and Switzerland; worked as clerk at the patent office in Bern (1902-1909).
- In 1905 (the *annus mirabilis*) published four fundamental scientific papers on the photoelectric effect, Brownian motion, special relativity, and equivalence of matter and energy.
- Starting in 1908, academic career in Bern, Zürich, Prague, Berlin and, after emigration to the USA before World War II, at Princeton University.
- Awarded the Nobel Price for Physics in 1921 “for his services to Theoretical Physics, and especially for his discovery of the law of the photoelectric effect”.

Following his work leading to the special and general relativity, including the famous equation $E=mc^2$, Einstein continued to work towards a unifying theory of the fundamental forces in the Universe, the most fundamental question in all physics and cosmology. Many space missions, in particular the Hubble Space Telescope, contribute key observations to the understanding of the origin, evolution and fate of the Universe.

Albert Einstein is also the most publically recognized scientists ever. His face is probably known to every educated person, and his name can be considered as a synonym for the genius in the public perception. He is also very well recognized in popular culture, with many famous pictures of his unique hairstyle and facial expressions.

The year 2005 was named “World Year of Physics” in commemoration of the 100th anniversary of the *annus mirabilis*. In 1999, *Time* magazine named Albert Einstein *Person of the Century*.

3. Conclusion

The scientific and worldwide reputation of Albert Einstein makes him the perfect choice for the name of ATV-4. This will contribute to reinforce the message that Europe’s role in human spaceflight and exploration is rooted in its tradition of science and technological progress coupled with humanistic and societal values.

Delegations are invited to take note of the attached proposal.