

Press Release



Toulouse

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Successful Test in the stratosphere for the BalMan manoeuvring balloon, from the Guiana Space Centre.

On the night of October 30th to 31st, 2024, the BalMan manoeuvring balloon, designed and manufactured by HEMERIA under the supervision of the Centre National d'Études Spatiales (CNES), successfully completed its 1st flight test from the Guiana Space Centre, validating the reliability of the stratospheric balloon envelope and flight safety systems under high-altitude conditions. This success also confirms HEMERIA's ambition as European leader in this field, with the support of CNES.

This innovative stratospheric manoeuvring balloon project, which represents a real strategic challenge for France, was initiated within the framework of *France Relance*, with the support of the DGA and CNES. The company HEMERIA, responsible for the design and development of the balloon, also contributed to the funding of this project.

With this new type of manoeuvring balloon, the aim is to control the dependence of the balloon's movements in the wind, in order to control the system's direction, thus to stay above a geographical area of interest, at an altitude of several tens of kilometres, for much longer than a drifting balloon, an airplane or even a drone. To achieve this, BalMan operators use wind currents at different altitudes to move the vehicle horizontally. With such capabilities, this balloon will benefit a multitude of players, such as the defence industry, and will find applications in meteorology and the surveillance of high-risk areas (monitoring fire outbreaks, volcanic eruptions, etc.).

As the historic operator of stratospheric balloons in France and internationally, CNES will be able to offer this new type of aerostat to the scientific community in the future for the long-term study of sites with high scientific value, both in the field of Earth observation or sciences of the universe.

This 1st flight test was an opportunity for the Guiana Space Centre (GSC) to welcome back CNES balloon release activities, after a 40-year absence. The CNES teams based at GSC were able to provide their expertise to the teams involved in BalMan, in terms of space operations, ground backup and flight backup.

Following this successful first test flight, a second flight is scheduled for 2025. This next test aims at assessing the balloon's manoeuvrability and payload capacity. BalMan has a maximum payload capacity of 50 kg.

These tests will enable CNES and HEMERIA to get a little closer to operational use of BalMan after each release.

Nicolas MULTAN, CEO of HEMERIA, declared: *"I'm extremely pleased with the success of this first stratospheric flight of our ambitious BalMan system. This success goes to the HEMERIA and CNES teams, who accomplished this first challenge together, in record time. This demonstrates the innovative approach taken by an agency and a manufacturer with a common goal. We will now move on to the next stage, with new milestones on the road to an operational product."*

Caroline LAURENT, Director of Orbital Systems and Applications at CNES, commented: *'The success of this first flight of the BalMan manoeuvring balloon once again highlights France's exceptional expertise in the field of aerostats. The cooperation between CNES and HEMERIA on this project is a perfect illustration of how government and industry complement each other in the development of successful innovative projects. BalMan's activities will now continue, with the aim of rapidly making this technology available to the scientific, defence and commercial communities.'*

About

CNES – www.cnes.fr

CNES (Centre National d'Etudes Spatiales) is the government agency responsible for shaping France's space policy and implementing it in Europe. Its task is to conceive and orbit satellites, invent the space systems of the future and nurture new services to aid us in our daily lives. Founded in 1961, it is the initiator of major space projects, launch vehicles and satellites, and the partner of choice for industry fuelling innovation. CNES comprises some 2,400 people with a passion for space working to open up new and infinite fields of applications in five core areas of focus: Ariane, science, Earth observation, telecommunications and defence. It is a key player driving technology innovation, economic development and industrial policy for the nation. It also fosters scientific collaborations and has forged numerous international partnerships. France, represented by CNES, is the leading contributor to the European Space Agency (ESA).

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HEMERIA - www.hemeria-group.com

As a major and recognized player in the space industry, with long-standing partnerships with CNES and major contractors, HEMERIA designs, manufactures, and provides state-of-the-art space systems and vehicles for commercial, institutional, and scientific clients at the national, European, and international levels. As a leader in the small satellite and stratospheric balloon industry, HEMERIA facilitates access to space for new entrants through optimized and competitive solutions based on French technical expertise. HEMERIA also supports its clients from the design of their solution to the deployment of the operational system into orbit and is one of the top three European providers of structures, thermal protections, and interconnection devices.

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