

EXTERNAL RELATIONS AND CORPORATE COMMUNICATION

**Electric propulsion twin-seater glider project:**



## **COP 21: the Euroglider project, supported by Dassault Aviation, contributes to the emergence of new environmental technologies**

(Saint-Cloud, 11/12/2015) - As part of its program of cooperation with the academic sector, **Dassault Aviation** has since 2014 been working in close partnership with the schools of the **ISAE Group** (ISAE, ISAE-ENSMA, ESTACA, French Air Force) on the development of the “**Euroglider**” project, created and supported by the **European Gliding Development Association** (AEDEVV).

The purpose of this cooperation is to develop an autonomous, electrically powered twin-seater glider for *ab initio* training, capable of performing complete instruction flights, regardless of atmospheric conditions. It will thus be usable for basic training all year round, with significantly lower operating costs. This is combined with an extremely low environmental impact in terms of carbon footprint and noise.

The first phase of the work was devoted to general preliminary design studies, which were presented in June 2015. These more particularly identified the specific problems involved in on-board energy storage and power plant efficiency on this type of aircraft, in order to give it the range necessary for several consecutive training flights, without having to use thermals to climb.

The second phase will lead to the selection of the final configuration in June 2016. It comprises 12 work packages: 4 different architecture configurations and 8 cross-cutting studies (power plant position, on-board energy, optimization of power plant and propeller efficiency, common configurations and training operations). Specific modelling software has also been developed for the Euroglider so that each work group can calculate efficiency levels and optimize the architecture configurations.

The program will lead to airframe studies and systems integration, from 2016 to 2018, with the pre-industrialization phase following on subsequently.

The project is managed by the technical experts from Dassault Aviation and the AEDEVV in four specific fields: implementation and utilization, airframe and systems, regulatory and environmental framework and, finally, economic data. These experts oversee the work done by the students from the schools in the ISAE Group.

Dassault Aviation’s collaborative “Piste” platform was also made available to the students and their teachers to collate the research, direct it or provide answers. Meetings and periodic videoconferences are also held at the company’s Headquarters in Saint-Cloud.

“Euroglider” is among the projects aiming to promote electrical power in the aeronautical world, through an optimized, realistic approach (minimal power and energy, limited utilization during the flight).

Over and above the theoretical studies, the final aim is to produce a solution that could then be industrialized by a light aviation manufacturer, capable of producing and deploying the aircraft in Europe and thus:

- through innovative, appropriate technological solutions, provide an answer based on the needs of European glider users (reduction of *ab initio* training times and costs),
- facilitate the development of new glider training platforms and structures free of all constraints,
- offer pilots from other backgrounds (Air force, airlines, etc.), an opportunity to fly gliders and take advantage of their specific piloting characteristics and the wide range of information made available concerning glider operations,
- more generally take part in meeting European objectives to mitigate the environmental impact of aeronautical activities in a way that is tangible, realistic and reaches a wide audience.

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#### **About Dassault Aviation**

With more than 8,000 military and civil aircraft delivered to 90 countries over the past 60 years, and having logged nearly 28 million flight hours to date, Dassault Aviation can offer recognized know-how and experience in the design, development, sale and support of all types of aircraft, from the Rafale fighter to the Falcon range of high-end business jets, as well as military unmanned air systems. In 2014, Dassault Aviation reported revenues of €3.68 billion, with around 11,600 employees.

[www.dassault-aviation.com](http://www.dassault-aviation.com)

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#### **About AEDEVV**

The European Gliding Development Association is a forum set up with the aim of creating and supporting projects to develop Gliding and related activities in Europe. These projects cover a variety of fields: sports, education, technical, industrial, environmental and societal, in order to serve the general interests of the aeronautical world.

[www.aedevv-egda.net](http://www.aedevv-egda.net)

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