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FENYX: Modifications in an aerial platform for research

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The aim of the FENYX Project is to manufacture a new high payload and long endurance aircraft for research.

This large aircraft will be able to carry at least 7000 kg of payload for 6 hours to a maximum altitude of 7620 m. In addition to this characteristics, it will have STOL (Short Take Off and Landing) capability, letting it operate in any part of the world and carrying out almost any campaign.

This aircraft will allow a group of specialists to carry out different campaigns in the same flight, permitting them the simultaneous study of different fields of knowledge, such as atmospheric sciences or remote sensing. The FENYX airplane will also be available to test new instruments on board.

To achieve these goals, structural modifications will be implemented in the basic aircraft, such as wing hard points to support the installation of pods, different sizing holes on the fuselage to install scientific instrumentation, supplies to install a nose probe, intakes to collect air from the atmosphere, etc.

Furthermore, several aircraft systems will be modified to hold the on board scientific instruments, such as electrical system, in order to power all the airborne devices and communications system, in order to increase its capabilities. Moreover, a FTI (Flight Test Instrumentation) system will be included to provide accurate attitude and positioning data to carry out the scientific experiments.

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