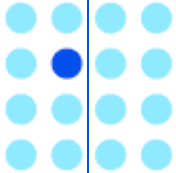




## > PAS (Precision Airdrop System)

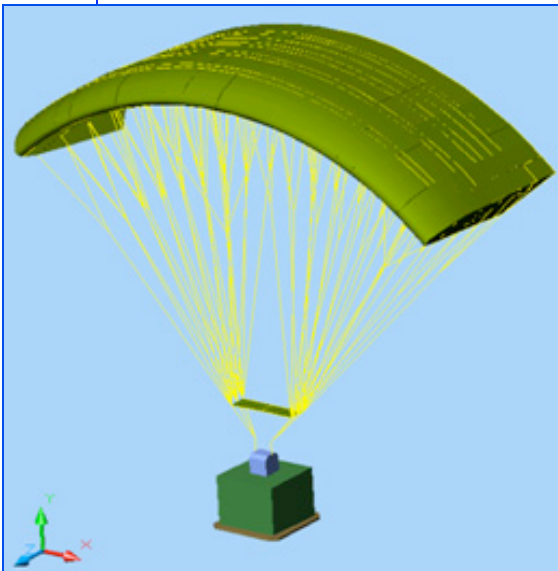
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Following the transformations that have taken place in operational scenarios, the capacity to launch loads beyond the enemy lines with an increasing degree of accuracy, for the purpose of both carrying out incursions and ensuring supplies, is becoming more and more important.

This can be effectively achieved by means of concepts such as satellite-guided air-launch systems. These systems – which employ both round and square parachute canopies – can assure the necessary manoeuvrability required by the various types of mission.

3D CAD PAS model



PAS in flight



This precision airdrop system comprises four main components.

An *independent guiding system*, which guides the parachute to the target: the coordinates of the target are entered by an operator using the dedicated interface software in the run up to the mission.

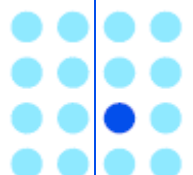
The system processes both the entered coordinates and the data received from the weather sensors and subsequently controls the actuators connected to the parachute canopy, to suitably modify its trim and independently correct any deviations from the initial flight trajectory and ensure that the load actually lands in the determined area.

A *parachute system*, comprising a ram air wing with a slider and a collapsible stabilizing drogue, deployed by means of a static line. No pyrotechnic devices are required.

The parachutes can be repacked using the standard techniques known to most riggers.

A *platform*, made of a light material and fitted with suitable load fastening devices.

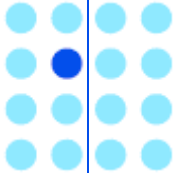
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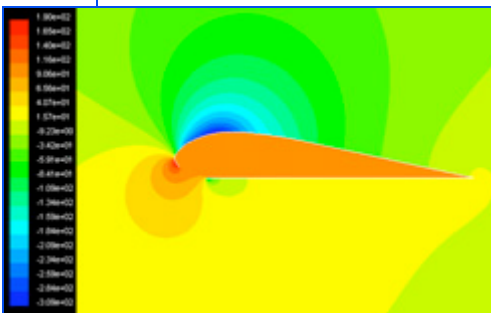
## > PAS (Precision Airdrop System)

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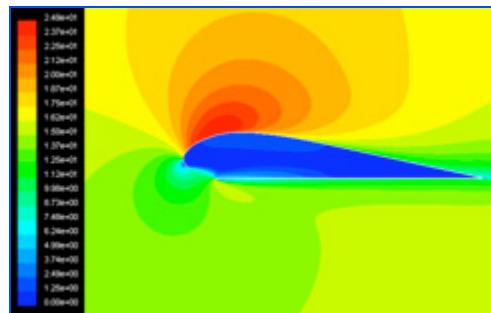


An *impact attenuation system*, which is integral with the platform and consists of airbags, which inflate before impact with the ground and whose purpose is to make sure that the load and platform do not get damaged on landing.

CFD airfoil - static pressure values

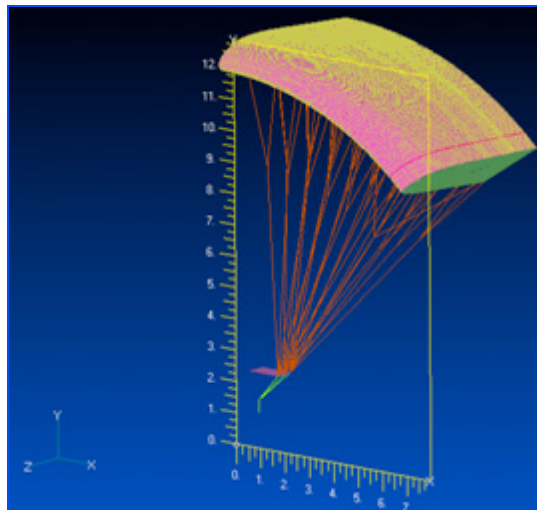


CFD airfoil - speed



The PAS system represents a logistical solution to be used for rescue operations and providing humanitarian relief and military supplies in wild areas that are difficult to reach with other means of transport.

### PAS 3D mesh per FEM calculations



The system can be launched by vehicles flying at up to 25000 ft and can carry loads of up to 1000 Kg (2200 lbs) (including the system itself).

The PAS system has been designed and is manufactured in accordance with the following standards: MIL-STD-810F(3), MIL-P-25062B, ANSI/AIAA S-017A-2000, AERQ 2110.

For many years now, Aero Sekur has been using the LS-DYNA software for parachute deployment and airbag inflation simulations, based on CV, ALE and FSI techniques.

>] end

